HawkEye® 1500 Series

QuicSet Technology

Optional Verification

Multiple Lens Options
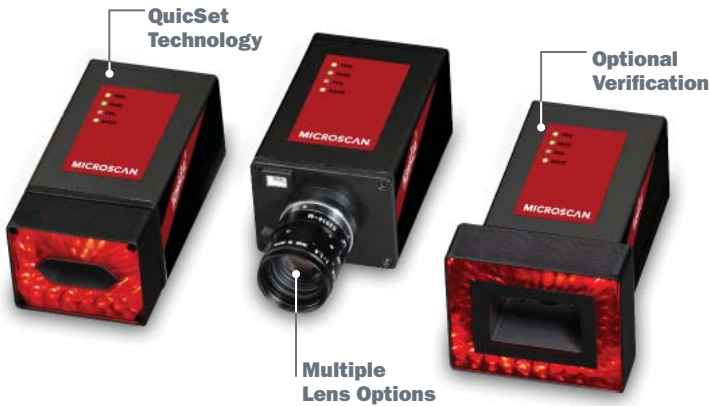
Fixed-Mount Direct Part Mark Reader

The HawkEye 1500 Series are high performance fixed-mount direct part mark (DPM) readers in a user-friendly smart camera format. The simple interface, advanced programming controls, and optional built-in symbol quality verification make the HawkEye 1500 a flexible and powerful series of readers. Whether reading printed labels or a challenging low contrast DPM, the HawkEye 1500 Series provide cost-effective reliable reading solutions.

HawkEye 1500 Series: At a Glance

- *Decodes/second: up to 30*
- *Read Range: Varies By Model*
- *Patented QuicSet Technology*
- *Integrated Ethernet Networking*

HawkEye 1510: Flexible reader with multiple C-mount lens and lighting options

HawkEye 1515: Universal reader for the broadest range of direct part mark reading applications

HawkEye 1525: Specializes in DPM reading with dark-field illumination, typically used for highly reflective parts

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

HawkEye 1500 Series: Available Codes

Linear	All Standard	Postal Codes	

Stacked	MicroPDF	PDF417	GS1 Databar

2D	Data Matrix	QR	

Optimized Decoding
Industry-leading decoding algorithms allow the HawkEye 1500 series to consistently read damaged, distorted or otherwise challenging directly marked codes at high decode rates.

Built-In Connectivity
Built-in Ethernet and serial ports are available for setup, control and data transfer. Eight points of discrete digital I/O are also included.

ReadRunner Software
The ReadRunner monitoring and setup software allows optimization of reading performance and remote monitoring of readers.

QuicSet Technology
The patented QuicSet audio visual alignment pairs with unique auto-learn features to allow users to easily and reliably align and train the unit.

DPM Verification
Built-in verification enables real time quality monitoring to ensure consistently high read rates. The optional license enables advanced 1D and 2D verification, including AIM DPM-1-2006 standards and user-defined custom verification.
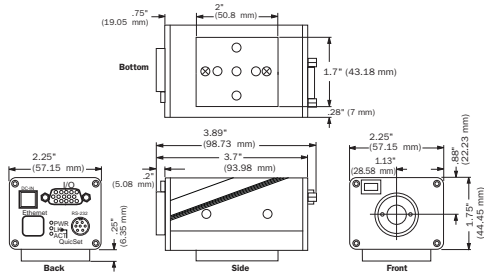
Application Examples
Automotive
- Dot peen mark on power train components
- Laser marks on automotive electronics components

Aerospace
- Dot peen marks on gas turbine blades, engine parts

Medical Devices
- Laser marks on medical device components

Electronics
- Laser markings on printed circuits boards, flex circuits
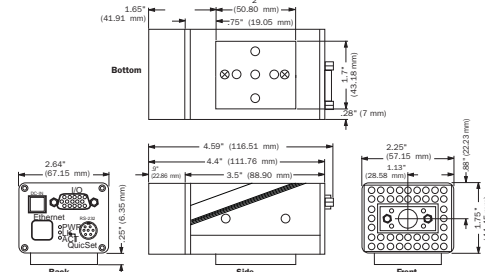
Semiconductors
- Laser marks on packages and components

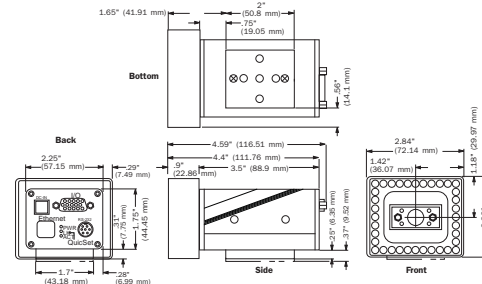# MICROSCAN®

HawkEye® 1500 Series Specifications and Options

HAWKEYE 1510 MECHANICAL

HAWKEYE 1515 MECHANICAL

HAWKEYE 1525 MECHANICAL

HawkEye 1510	HawkEye 1515	HawkEye 1525
Field of View (H x V) Depends on lens selection	**Field of View (H x V)** HawkEye 1515MD: 1.3" x 1.0" at 4.0" (3.30 cm x 2.54 cm at 10.16 cm) 1.55" x 1.19" at 5.0" (3.94 cm x 3.02 cm at 12.70 cm) 1.80" x 1.36" at 6.0" (4.57 cm x 3.45 cm at 15.24 cm) HawkEye 1515HD: 0.87" x 0.67"at 2.5" (2.21 cm x 1.70 cm at 6.35 cm) 1.0" x 0.75" at 3.0" (2.54 cm x 1.90 cm at 7.62 cm) 1.11" x 0.85" at 3.5" (2.82 cm x 2.16 cm at 8.89 cm) HawkEye 1515SHD: 0.50" x 0.38" at 3.0" (1.27 cm x 0.97 cm at 7.62 cm) 0.55" x 0.42" at 3.5" (1.40 cm x 1.14 cm at 8.89 cm) 0.60" x 0.46" at 4.0" (1.55 cm x 1.07 cm at 10.16 cm) HawkEye 1515UHD: 0.24" x 0.18" at 2.13" (0.61 cm x 0.46 cm at 5.41 cm) 0.25" x 0.19" at 2.25" (0.64 cm x 0.48 cm at 5.71 cm) 0.26" x 0.20" at 2.38" (0.66 cm x 0.51 cm at 6.05 cm) HawkEye 1515LHD: 1.0" x 0.75" at 5.0"± 0.5" (2.54 cm x 1.90 cm at 12.7 cm ± 1.27 cm)	**Field of View (H x V)** HawkEye 1525HD: 0.87" x 0.67" at 2.5" (2.21 cm x 1.70 cm at 6.35 cm) 1.0" x 0.75" at 3.0" (2.54 cm x 1.90 cm at 7.62 cm) 1.11" x 0.85" at 3.5" (2.82 cm x 2.16 cm at 8.89 cm) HawkEye 1525SHD: 0.50" x 0.38" at 3.0" (1.27 cm x 0.97 cm at 7.62 cm) 0.55" x 0.42" at 3.5" (1.40 cm x 1.14 cm at 8.89 cm) 0.60" x 0.46" at 4.0" (1.55 cm x 1.07 cm at 10.16 cm) HawkEye 1525UHD: 0.24" x 0.18" at 2.13" (0.61 cm x 0.46 cm at 5.41 cm) 0.25" x 0.19" at 2.25" (0.64 cm x 0.48 cm at 5.71 cm) 0.26" x 0.20" at 2.38" (0.66 cm x 0.51 cm at 6.05 cm)
Operating Distance [1] Depends on lens selection	**Operating Distance** [1] HawkEye 1515MD: 4.0" to 6.0" (10.16 cm to 15.24 cm) HawkEye 1515HD: 2.5" to 3.5" (6.35 cm to 8.89 cm) HawkEye 1515SHD: 3.0" to 4.0" (7.62 cm to 10.16 cm) HawkEye 1515UHD: 2.125" to 2.375" (5.50 cm to 6.03 cm)	**Operating Distance** [1] HawkEye 1525HD: 2.5" to 3.5" (6.35 cm to 8.89 cm) HawkEye 1525SHD: 3.0" to 4.0" (7.62 cm to 10.16 cm) HawkEye 1525UHD: 2.125" to 2.375" (5.50 cm to 6.03 cm)
Minimum Element Size Depends on lens selection	**Minimum Element Size** HawkEye 1515MD: 1D: 0.005" (0.12 mm), 2D: 0.010" (0.25 mm) HawkEye 1515HD: 1D: 0.003" (0.07 mm), 2D: 0.006" (0.15 mm) HawkEye 1515SHD: 1D: 0.0015" (0.04 mm), 2D: 0.003" (0.07 mm) HawkEye 1515UHD: 1D: 0.0007" (0.02 mm), 2D: 0.0013" (0.03 mm)	**Minimum Element Size** HawkEye 1525HD: 1D: 0.003" (0.07 mm), 2D: 0.006" (0.15 mm) HawkEye 1525SHD: 1D: 0.0015" (0.04 mm), 2D: 0.003" (0.07 mm) HawkEye 1525UHD: 1D: 0.0007" (0.02 mm), 2D: 0.0013" (0.03 mm)

[1]Working distance measured from last physical element to part.

MECHANICAL–HE1510
Height: 2" (50.8 mm)
Width: 2.25" (57.15 mm)
Depth: 3.89" (98.73 mm)

MECHANICAL–HE1515
Height: 2.36" (59.94 mm)
Width: 2.84" (72.14 mm)
Depth: 4.59" (116.51 mm)

MECHANICAL–HE1525
Height: 2" (50.8 mm)
Width: 2.25" (57.15 mm)
Depth: 4.59" (116.51 mm)

LIGHT COLLECTION
VGA: 640 by 480 pixels

COMMUNICATION PROTOCOLS
Interfaces: TCP/IP, RS-232, Baud rates from 1200 bit/s to 115.2 kbit/s

READ PARAMETERS
Minimum Contrast: 20% at 630nm
Speed: Up to 30 parts per second

EMISSIONS/IMMUNITY
EMC: EN61326, 1998 Class A
Electrical/Mechanical Safety: EN 61010-1:2002
Laser Safety: EN 6082501: 1993 Amendment 2 2001-01

ELECTRICAL
Power: 24V at 350 mA typical

ENVIRONMENTAL
Operating Temperature: 0° to 40° C (32° to 104° F)
Storage Temperature: -20° to 65° C (-4° to 149° F)

SYMBOLOGY TYPES
2D Symbologies: Data Matrix, PDF417, QR Code
Linear Barcodes: Code 39, Code 93, Code 128, UPC/EAN, UPC-E, UPC Supplementals, I2 of 5, BC412, Codabar, Postnet, Pharmacode, GS1 Databar and Composite

VERIFICATION STANDARDS
2D Symbologies: ISO 15415, AIM DPM-1-2006, AS9132/IAQG
Linear Barcodes: ANSI/ISO 15416, DoD-IUID string validation based on MIL-STD-130N

INDICATORS
LEDs: Trigger, Fail, Pass, Mode

SAFETY CERTIFICATIONS
FCC, CE

ISO CERTIFICATION
Certified ISO 9001:2008 Quality Management System

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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**–One year limited warranty on parts and labor. Free extended 3 year warranty upon online product registration.

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