The Vision MINI smart camera is designed specifically for reliable vision performance in embedded identification and inspection applications. As the world’s smallest fully integrated vision system, the Vision MINI’s ultra-compact size and wide angle optics provide the best performance available for machine vision tasks at close range.

With the Vision MINI, OEM design engineers can quickly implement robust inspection, color matching, symbol decoding, OCR and more in a single compact vision solution.

Vision MINI: At a Glance
- Ultra-compact shape and size
- Complete with processor, lens, illumination and AutoVISION® software for easy integration into embedded applications
- Simultaneously inspect multiple part features
- Storage for multiple jobs
- Mono and color sensor options

AutoVISION Software (WVGA/SXGA only): Provides a simple setup and runtime interface for solving basic to mid-range vision applications.

Visionscape Software (QXGA standard; WVGA/SXGA optional): Enables scripting and other advanced programming capabilities.

Microscan Link: Allows visualization and management of tool values on external systems (PLC, PC, or HMI).

CloudLink: Displays linked tool values in a fully-customizable web-based HMI on browser-enabled devices.

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

Vision MINI: Capabilities
- 1D/2D symbol decoding
- Optical Character Recognition (OCR)
- Symbol Quality Verification and OCV
- Dynamic part location
- Assembly verification
- Dimensional measurements

Plus Visionscape Option:
- Image transformation and scaling
- Precision calibration
- Custom vision tools (scripting)
- Program control functions
- 50+ machine vision tools

Compact & Lightweight
The Vision MINI is the world’s smallest fully integrated smart camera. Its compact size allows flexible positioning in tight spaces. The lightweight and durable magnesium alloy case weighs less than 2 oz.

AutoVISION
The AutoVISION button provides one button set up of targeting and autofocus, and sets internal parameters to optimize image capture.

Reliability & Longevity
The Vision MINI delivers both high performance and reliability, along with the assurance of long term availability and support. This is essential for OEMs, who require uninterrupted availability throughout the lifecycle of their products, and enables them to focus on new development instead of obsolescence issues.

Powerful Capabilities
Features a robust tool set to address a wide range of automation challenges using vision technology. AutoVISION software provides an intuitive interface, step-by-step guides, and a library of presets that allow easy set up and deployment.

Scalable System
AutoVISION software allows easy expansion to more complex vision applications through migration to full Visionscape® software.

Application Examples
- Clinical instruments
- Tube and cap absence and presence
- Color detection and matching
- Electronics assembly
- Fiducial location
- Pharmaceutical packaging
- Medical devices
The default is activated by connecting pin 8 to ground pin 4.

**Shutter Type:**
- Target locator
- Blue V
- Green Flash
- Pass

**Stacked Symbologies:**
- QR Code, Micro QR Code, Aztec Code, Dot Code

**Shutter:**
- Progressive scan, square pixel.

**SENSOR OPTIONS**

**LEDS:**
- Trigger, Pass, Fail, Mode, Power,
- INDICATORS

**Software adjustable 10 µs to 16.7 ms**
- Global (WVGA), Rolling (SXGA, QXGA)

**752 x 480 pixels, up to 60 fps**

**WVGA/SXGA Vision MINI**

**QXGA Vision MINI**

**FIELD OF VIEW AND WORKING DISTANCE**

**IMAGING RATES**

**WVGA:** up to 60 full frame images/second

**SXGA:** up to 15 full frame images/second

**QXGA:** up to 5 full frame images/second

**CONNECTOR**
- Type: 3 ft. cable terminated with High Density 15-pin D-sub socket connector and USB Type B connector

**ELECTRICAL POWER**

**WVGA:** 400 mA @ 5 VDC (typ.), 4.0 watts max

**SXGA:** 465 mA @ 5 VDC (typ.), 4.5 watts max

**QXGA:** 400 mA @ 5 VDC (typ.), 4.2 watts max

**Optional Int.:** 10.28V with IC-332 accessory

**COMMUNICATION PROTOCOLS**

**Standard Interface:** RS-232 and/or USB 1.1 (Ethernet emulation mode driver supported)

**PRODUCT OPTIONS**

- 5V TTL compatible, can sink 10 mA and source 10 mA.
- Pin 13: Chassis ground: Used to connect chassis body to earth ground only.
- Not to be used as power or signal return.
- Can sink 10 mA and source 10 mA.

**USB Type B Socket**

**No.**

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**DISCRETE I/O**

**Trigger Input:** 5 to 28 VDC rated (.16 mA)

**Learn:** 5 to 28 VDC rated (.16 mA)

**Outputs (1, 2, 3):** 5V TTL compatible, can sink 10 mA and source 10 mA

**Optional I/O:** Optoisolated (with IC-332 accessory)

**SAFETY CERTIFICATIONS DESIGNED FOR**

- FCC, UL/cUL, CE, CB

**ROHS/WEEE COMPLIANT**

**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—For current warranty information on this product, please visit www.microscan.com/warranty.

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