

VISION MINI 智能相机



全球最小的视觉系统

Vision MINI 智能相机旨在为嵌入式识别和检测应用提供可靠的视觉性能。作为世界上最小的完全集成化的视觉系统，Vision MINI极为紧凑的尺寸和广角光学特征为开展近距离的机器视觉工作提供了最佳性能。

OEM设计工程师可凭借Vision MINI在单个紧凑型的视觉方案中快速实施稳健检测、色彩匹配、读码和OCR等工作。

Vision MINI: 简介

- 造型和尺寸极为紧凑
- 带有处理器、镜头、光源和AutoVISION软件便于集成到嵌入式应用
- 同时检查多个部件特征
- 保存多个作业
- 单色或彩色传感器可供选择



AutoVISION 软件 (WVGA/SXGA只): 提供简易设置和运行时间界面, 可解决基本和中级视觉应用需求。



Visionscape 软件 (QXGA; WVGA/SXGA可选): 可使用脚本和其他高级编程功能。



Microscan Link: 在外部设备上 (如PLC, PC或HMI) 监测和管理工具值。



CloudLink: 在网页浏览器上自定义网络HMI界面显示连接工具值。

有关本产品的详细信息, 请访问 www.microscan.com。

造型紧凑, 重量极轻

Vision MINI 是世界上最小的完全集成化的智能相机。凭借其紧凑外观可在狭小空间内活动自如。经久耐用的镁合金外壳, 重量不足2盎司。

自动对焦

可通过AutoVISION按钮实现一键式瞄准和对焦功能, 并可设置内部参数优化图片获取。

可靠性及超长寿命

Vision MINI性能极佳且可靠, 可保证长时间使用。这对OEM商尤为重要, 因为他们不希望产品的使用周期中出现障碍, 从而可以专注新品开发而非故障问题。

功能强大

它作为一款强大的工具套件可凭借视觉技术解决各类自动化难题。AutoVISION软件带有直观界面、详细指导和模板库, 可轻松进行设置和应用。

升级系统

AutoVISION软件可升级为完整的Visionscape软件, 不费吹灰之力即可进行更为复杂的视觉应用。

应用实例

- 医疗诊断设备
 - 试管及试管帽缺失检测
 - 色彩检测和匹配
- 电子产品装配
 - 基准定位
- 制药包装
- 医疗设备

Vision MINI: 功能



- 读取一维和二维码
- 光学字符识别 (OCR)
- 符号质量验证工具
- 动态零件定位
- 装配验证
- 尺寸测量

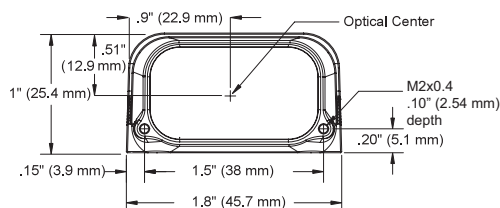
另加 Visionscape 选项:

- 图片转化和缩放
- 精准校验
- 自定义视觉工具 (脚本)
- 程序控制功能
- 50+ 机器视觉工具

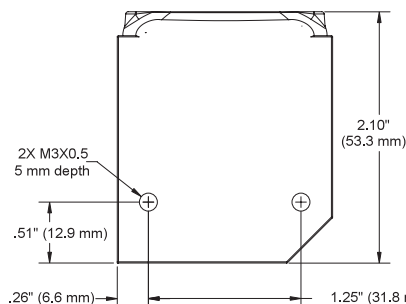
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VISION MINI SMART CAMERA SPECIFICATIONS AND OPTIONS

FRONT



BASE



Note: Nominal dimensions shown. Typical tolerances apply.

MECHANICAL

Height: 1" (25.4 mm) **Width:** 1.80" (45.7 mm)

Depth: 2.10" (53.3 mm) **Weight:** 2 oz. (57 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

General Immunity for Light Industry:

EN 55024 ITE Immunity Standard

Radiated and Conducted Emissions of ITE

Equipment: EN 55022 ITE Disturbances

LIGHT SOURCE

Type: High output LEDs



SYMBOLGY TYPES

2D Symbolgies: Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code, Dot Code

Stacked Symbolgies: 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

INDICATORS

LEDs: Trigger, Pass, Fail, Mode, Power, Link/Act

Green Flash: Pass

Blue V: Target locator

SENSOR OPTIONS

Progressive scan, square pixel.

Shutter: Software adjustable 10 μ s to 16.7 ms

Shutter Type: Global (WVGA), Rolling (SXGA, QXGA)

Sensor: 1/2 inch

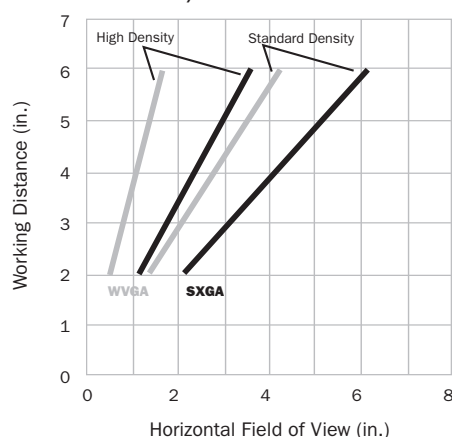
WVGA: CMOS 752 x 480 pixels, up to 60 fps

SXGA: CMOS 1280 x 1024 pixels, up to 15 fps

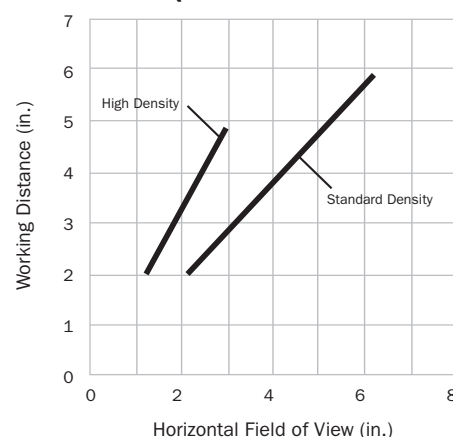
QXGA (Color): CMOS 2048 x 1536 pixels, up to 5 fps

FIELD OF VIEW AND WORKING DISTANCE

WVGA/SXGA Vision MINI



QXGA Vision MINI



PIN ASSIGNMENTS

High Density 15 Pin D-sub Socket

Pin No.	Host RS-232	In/Out
1	Power +5 VDC	In
2	TxD	Out
3	RxD	In
4	Power/Signal Ground	
5	NC	
6	NC	
7	Output 1 TTL ^a	Out
8	Default configuration ^b	In
9	Trigger	In
10	NC	In
11	Output 3 TTL ^a	Out
12	Learn (NPN)	In
13	Chassis ground ^c	
14	Output 2 TTL ^a	Out
15	NC	

a. Can sink 10 mA and source 10 mA.

b. The default is activated by connecting pin 8 to ground pin 4.

c. Chassis ground: Used to connect chassis body to earth ground only.

Not to be used as power or signal return.

SOFTWARE OPTIONS

WVGA, SXGA: AutoVISION included, Visionscape and Verification/OCV upgrades available

QXGA (Color): Visionscape included

IMAGING PARAMETERS

Focal Range: 2 to 6" (50.8 to 152.4 mm) (autofocus)

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

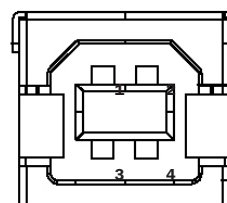
QXGA: 400 mA @ 5 VDC (typ.), 4.2 watts max

Optional Int.: 10-28V with IC-332 accessory

COMMUNICATION PROTOCOLS

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

USB Type B Socket



No.	Function
1	Vbus (5V)
2	D-
3	D+
4	Ground

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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