

## MINI HAWK 系列



## 适用于直接部件标记的微型影像扫描器

MINI Hawk 微型影像扫描器内置高效的直接部件标记 (DPM) 读取算法, 它功能强大、易于使用, 适用于条形码和二维码的追踪、跟踪和控制应用。无需进行配置或设置, X-Mode 技术即可读取受损或模糊不清的标签, 是高效解码的保证。

凭借其高速度和高分辨率配置能力, MINI Hawk 图像扫描器可以应对几乎任何一种苛刻的应用。

### MINI Hawk 系列: 特色一览


- 解码速度和读取范围: 视型号而异
- X-Mode 解码技术
- 自动对焦
- 可选的 USB 连接

MINI Hawk HR: 高分辨率图像扫描器

MINI Hawk HS: 高速图像扫描器

 ESP® 简易设置程序: 单点软件为所有 Microscan 阅读器提供了迅速简便的设置和配置。

 EZ 按钮: 此按钮可在不使用计算机的情况下, 对阅读器进行设置和配置。

 可见指示器: 包括“有效读取”时绿色闪烁指示灯、LED 指示灯以及标签定位工具。

有关本产品的详细信息, 请访问 [www.info@microscan.com](http://www.info@microscan.com)。

#### 解码任何标签

凭借我们的专利解码算法, MINI Hawk 能够稳定地读取受损、变形或其它难以辨认的直接部件标记。

#### 自动对焦

要进行动态实时自动对焦, 可将标签置于视场的中心, 然后按下 EZ 按钮即可。MINI Hawk 可自动调整焦距并设置内部参数, 从而优化标签。

#### 视场宽阔

使用绕射照明光源和光学直角镜, 可在近至 1" (25.4 mm) 的距离读取大至 2" (50.8 mm) 见方的标签。

#### X-Mode 技术

除了最具效率的解码技术外, X-Mode 技术能够在所有应用中轻松地设置和部署 MINI Hawk。

#### 小巧而轻盈

外形小巧便于轻松置于狭小的空间, 重量轻盈则便于机器人应用。

#### 应用实例

- 汽车
- 动力传动组件上的点刻标记
  - 汽车电子组件上的激光标记
- 医疗设备
- 组件上的激光标记
- 电子产品
- 印刷电路板、柔性电路上的激光标记
- 半导体元器件
- 包装和组件上的激光标记

### MINI Hawk 系列: 可用码

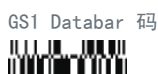
线性条码



二维标签

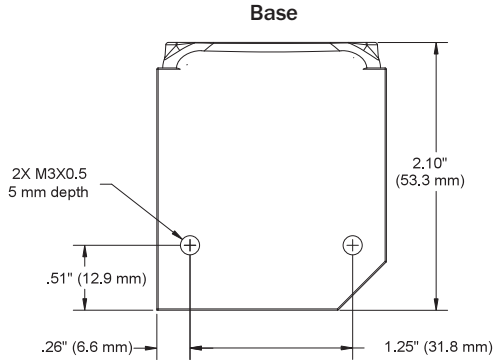
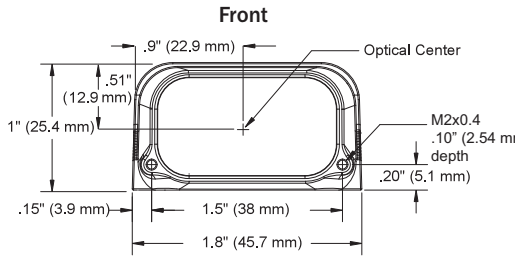


堆栈码

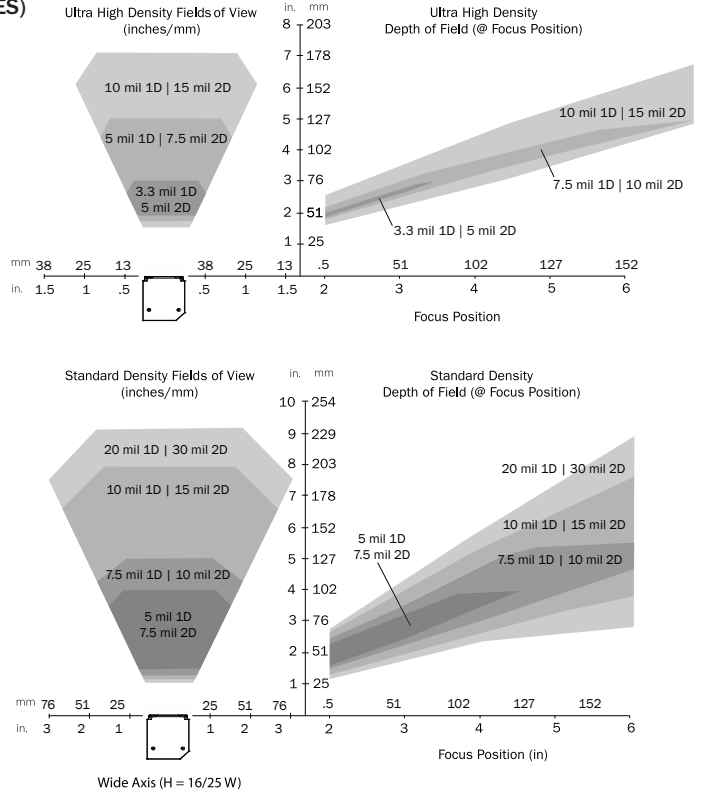


# MICROSCAN®

# MINI HAWK SERIES SPECIFICATIONS AND OPTIONS



## READ RANGES (GRAPHS AND TABLES)



### 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

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  
**MINI HAWK HR:** 1280 by 1024 pixels (SXGA)  
**MINI HAWK HS:** 752 by 480 pixels (WVGA)



### SYMBOLGY TYPES

**2D Symbolgies:** Data Matrix, QR Code, Micro QR Code

**Stacked Symbolgies:** PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)

**Linear Bar Codes:** Code 39, Code 128, BC 412, I2 of 5, UPC/EAN, Codabar, Code 93

### 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) (auto-focus)

### CONNECTOR

**Type:** 3 ft. cable terminated with High Density 15-pin D-Sub socket connector or USB Type A connector

### INDICATORS

**LEDs:** Read Performance, Power, Read Status  
**Green Flash:** Good read **Blue V:** Symbol locator  
**Beeper:** Good read, match/mismatch, noread, serial command confirmation, on/off

### COMMUNICATION PROTOCOLS

**Standard Interface:** RS-232, RS-422, or USB

### ELECTRICAL

**Power:** 5 VDC +/- 5%, 200 mV p-p max. ripple, 494 mA @ 5 VDC (typ.)  
**Optional Int.:** 10-28 V Accessory

Narrow-bar-width		Field of View (maximum)	Read Range (using autofocus)
1D	2D		
<b>Ultra High Density</b>			
.0033" (0.08 mm)	.005" (.13 mm)	1.1" (29 mm)	1.9 to 3.0" (48 mm to 76 mm)
.005" (0.13 mm)	.075" (.19 mm)	1.8" (45 mm)	1.8 to 5.0" (46 mm to 127 mm)
.010" (0.25 mm)	.15" (.38 mm)	2.5" (64 mm)	1.6 to 7.0" (41 mm to 178 mm)
<b>Standard Density</b>			
.005" (0.13 mm)	.0075" (.19 mm)	2.7" (69 mm)	1.7 to 3.4" (43 mm to 86 mm)
.0075" (0.19 mm)	.010" (.25 mm)	3.7" (93 mm)	1.6 to 5.0" (41 mm to 127 mm)
.010" (0.25 mm)	.15" (.38 mm)	4.7" (118 mm)	1.4 to 8.0" (36 mm to 203 mm)
.020" (0.51 mm)	.030" (.76 mm)	5.3" (136 mm)	1.3 to 9.3" (33 mm to 236 mm)

MINI HAWK HS units used for data collection. Data subject to change.

### HOST CONNECTOR/PIN ASSIGNMENTS

#### High Density 15 Pin D-sub Socket Connector

Pin No.	Host RS232	Host/Aux RS232	Host RS422/485	In/Out
1		Power +5 VDC		In
2	TxD	TxD	TxD(-)	Out
3	RxD	RxD	RxD(-)	In
4	Power/Signal Ground			
5	NC			
6	RTS	Aux TxD	TxD(+)	Out
7	Output 1 TTL <sup>a</sup>			Out
8	Default configuration <sup>b</sup>			In
9	Trigger			In
10	CTS	Aux RxD	RxD (+)	In
11	Output 3 TTL <sup>a</sup>			Out
12	New Master (NPN)			In
13	Chassis ground <sup>c</sup>			
14	Output 2 TTL <sup>a</sup>			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.

### DISCRETE I/O

**Trigger Input:** 5 to 28 VDC rated (.16 mA)  
**New Master:** 5 to 28 VDC rated (.16 mA)  
**Outputs (1, 2, 3):** 5V TTL compatible, can sink 10 mA and source 10mA  
**Optional I/O:** Optoisolated (with IC-332 accessory)

### SAFETY CERTIFICATIONS DESIGNED FOR

FCC, UL/cUL, CE, CB

### ROHS/WEEE COMPLIANT

### ISO CERTIFICATION

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 Read Range and other 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 Read Range 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. Extended warranty available.

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