

Product Introduction

MINI Hawk High Performance Compact Imager










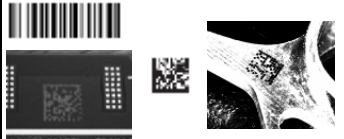
MINI Hawk Overview

As the inventor of the high performance compact imager segment, Microscan once again delivers world-class performance in a miniature autofocus imager, the MINI Hawk. MINI Hawk imagers pack aggressive direct part mark (DPM) decode algorithms into a compact imager that is both powerful and easy to use for barcode and 2D track, trace, and control solutions. Aggressive decoding is ensured through X-Mode technology, which reads the broadest quality range of symbols with little or no configuration or setup required.

Key Attribute	Application Benefit
Aggressive decoding	The MINI Hawk consistently reads damaged, distorted or otherwise challenging direct part marks with our patented X-Mode (v1.1) decode algorithms.
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 automatically adjusts focal distance and sets internal parameters to optimize symbol readability.
Wide field of view	Read symbols as large as 2" (50.8 mm) square as close as 1" (25.4 mm) with diffractive field illumination and optional right angle mirror.
Compact form factor	Miniature form factor fits easily in tight spaces, and is lightweight enough for mounting into robotic applications.

Complete Line of Compact Imagers

From embedded design to high performance DPM reading Microscan has the correct solution. The MINI Hawk is positioned as the premium do-everything-well product in Microscan's compact imaging line. It is the ideal product for automation engineers looking for a highly flexible, compact imaging product to read both high-contrast and low-contrast (DPM) symbols on varying materials and at varying speeds.

MS-4	MINI Series	MINI Velocity	MINI Hawk Series
			
<ul style="list-style-type: none"> - Embedded/OEM - VGA Resolution - Low power consumption - Fixed focus 	<ul style="list-style-type: none"> - General automation - SXGA and QXGA options - ESD Safe option - Autofocus 	<ul style="list-style-type: none"> - General automation and high speed production lines - WVGA sensor - Autofocus 	<ul style="list-style-type: none"> - SXGA and WVGA options - Aggressive DPM reading - Simple setup - Autofocus
High-contrast stationary symbols	High-contrast static and slow-moving symbols	High-contrast fast-moving symbols	Low-contrast or high-contrast slow-moving or fast-moving symbols
			

Performance →

MINI Hawk Ordering Information

MINI Hawk High Resolution

Part #	Description
FIS-6300-4001G	MINI Hawk High Resolution, Standard Density, Serial, 5VDC
FIS-6300-4002G	MINI Hawk High Resolution, High Density, Serial, 5VDC
FIS-6300-4003G	MINI Hawk High Resolution, Ultra High Density, Serial, 5VDC
FIS-6300-4004G	MINI Hawk High Resolution, Standard Density, USB+I/O, 5VDC
FIS-6300-4005G	MINI Hawk High Resolution, High Density, USB+I/O, 5VDC
FIS-6300-4006G	MINI Hawk High Resolution, Ultra High Density, USB+I/O, 5VDC

Narrow-bar-width		Field of View (maximum)	Read Range (using auto-focus)
1D	2D		
Ultra High Density			
0.0033 " (0.08 mm)	0.005 " (0.13 mm)	2.2 " (56 mm)	2.0 " to 4.4 " (51 mm to 112 mm)
0.0075 " (0.19 mm)	0.010 " (0.25 mm)	3.6 " (91 mm)	1.8 " to 6.7 " (46 mm to 170 mm)
0.015 " (0.38 mm)	0.020 " (0.51 mm)	4.0 " (102 mm)	1.9 " to 7.7 " (48 mm to 196 mm)
High Density			
0.005 " (0.13 mm)	0.0075 " (0.19 mm)	3.1 " (79 mm)	1.5 " to 6.0 " (38 mm to 152 mm)
0.0075 " (0.19 mm)	0.010 " (0.25 mm)	4.2 " (107 mm)	1.2 " to 7.0 " (30 mm to 178 mm)
0.015 " (0.38 mm)	0.020 " (0.51 mm)	5.6 " (142 mm)	0.9 " to 9.0 " (23 mm to 229 mm)
Standard Density			
0.005 " (0.13 mm)	0.0075 " (0.19 mm)	3.2 " (81 mm)	1.8 " to 3.5 " (46 mm to 89 mm)
0.0075 " (0.19 mm)	0.010 " (0.25 mm)	4.2 " (107 mm)	1.6 " to 5.0 " (41 mm to 127 mm)
0.010 " (0.25 mm)	0.015 " (0.38 mm)	6.8 " (173 mm)	1.4 " to 7.5 " (36 mm to 191 mm)
0.020 " (0.51 mm)	0.030 " (0.76 mm)	9.5 " (241 mm)	1.0 " to 10.0 " (25 mm to 254 mm)

MINI Hawk High Speed

Part #	Description
FIS-6300-5001G	MINI Hawk High Speed, Standard Density, Serial, 5VDC
FIS-6300-5002G	MINI Hawk High Speed, Ultra High Density, Serial, 5VDC
FIS-6300-5003G	MINI Hawk High Speed, Standard Density, USB+I/O, 5VDC
FIS-6300-5004G	MINI Hawk High Speed, Ultra High Density, USB+I/O, 5VDC

Narrow-bar-width		Field of View (maximum)	Read Range (using autofocus)
1D	2D		
Ultra High Density			
.0033" (0.08 mm)	.005" (.13 mm)	1.1" (29 mm)	1.9 to 3.0" (48 mm to 76 mm)
.0005" (0.13 mm)	.075" (1.9 mm)	1.8" (45 mm)	1.8 to 5.0" (46 mm to 127 mm)
.010" (0.25 mm)	.015" (.38 mm)	2.5" (64 mm)	1.6 to 7.0" (41 mm to 178 mm)
Standard Density			
.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 127mm)
.010" (0.25 mm)	.015" (.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)

Please reference the Microscan Product Pricing Catalog for detailed pricing and configuration information

General Accessories

Part #	Description
FIS-0210-0001G	MS-Connect 210, Connectivity Box with Display
FIS-0210-0002G	MS-Connect 210, Connectivity Box
FIS-0210-0003G	MS-Connect 210, Connectivity Box with Display and Ethernet
FIS-0210-0004G	MS-Connect 210, Connectivity Box with Ethernet
61-000127-02	Cable, Quadrus MINI to MS-Connect 210, 6 ft
FIS-0001-0035G	IC-332, Connects MINI to IB-131 (Note: replaces IC-331, FIS-0001-0029)
99-000018-01	IB-131, Interface Box
98-000039-02	Kit, IB-152, DB25 Plug Terminal Block, DB25 Gender Changer
61-300026-03	Cable, Communication, DB-25 Plug to DB-9 Socket, 6 ft
61-100029-03	Cable, IB-131 Daisy Chain, 1 ft
20-500013-01	DeviceNet Protocol Box
61-000011-02	Cable, MS-820 to IB-131 (also use for MS-3, 4, 9, 710 and MINI Extension)
61-000151-01	Cable, MINI USB, I/O Breakout, Flying Leads, 3ft
98-000098-01	Kit, Quadrus MINI Diffuser

Power Supply

Part #	Description
97-100004-15	Power Supply, 90-264 VAC,+24VDC, USA /Euro Plug (Only use with IC-332)

Mounting and Connectors

Part #	Description
98-000048-01	Mounting Arm/Adapter Kit, 4 inch, Quadrus MINI
98-000054-01	Kit, Mounting Stand Base Plate, Quadrus MINI
98-000053-01	Extension Kit, 4 inch, Quadrus MINI
98-000053-02	Extension Kit, 3 inch, Quadrus MINI
98-000060-01	Kit, Bracket, Side Mount, Quadrus MINI
98-000059-01	Kit, Bracket, Angle Mount, Quadrus MINI
98-000057-01	Kit, Bracket, Through Hole Mount, Quadrus MINI
98-000088-01	Kit, Right Angle Mirror
20-610024-01	Trigger Connector for IB-131, 4-pin Plug
20-610020-01	Power Connector for IB-131, 3-pin Socket




Photo Sensor

Part #	Description
99-000017-01	Photo Sensor, Visible, NPN, Dark On
99-000017-02	Photo Sensor, Visible, NPN, Light On
99-000019-01	Photo Sensor, Visible, NPN, Light On, 5VDC

Software and Documentation

Part #	Description
37-000001-01	Tools CD, User's Manuals, ESP Software
37-000003-01	EZ Trax Software

MINI Hawk Product Comparison

	MINI Hawk	DataMan 100	Matrix 200
			
Resolution/Optics			
WVGA	Y	Y	Y
SXGA	Y	N	N
Autofocus	Y	N	N
Largest FOV	Y	N	N
Setup			
Aggressive DPM	Y	Y	Y
Easy Setup	Y	Y	Y
Consistent Reading	Y	Y	Y
Communications			
RS232	Y	Y	Y
RS422/485	Y	N	Y
AUX Port	Y	N	Y
Reader Network	Y	N	Y
USB 1.0	Y	Y	Y
USB 2.0	N	Y	Y
Virtual COM Port Driver	Y	Y	Y
Read Cycle			
Multi-symbol decoding	Y	Y	Y
Matchcode	Y	N	Y
Multiple capture per trigger	Y	N	Y
I/O			
Inputs	3	2	2
Outputs	3	2	2
Power Supply			
5V	Y	Y	Y*
10-30V	Y**	Y	Y
Industrial Protection			
IP Rating	IP54	IP65	IP65

* USB model only

** 10-28V using accessory

Common Questions

Q. What is X-Mode and what makes it unique?

A. X-Mode is Microscan's latest decoding technology for all new products.

X-Mode for imagers simplifies the setup process, even in applications using the most challenging direct part marks. X-Mode for laser products (QX-830 and QX-870) includes aggressive decode performance and symbol reconstruction out of the box.

Different X-Mode firmware is used in laser and imager products.

Q. Is X-Mode 1.1 for imagers available in other products?

A. Currently, X-Mode 1.1 for imagers only comes standard in either the MINI Hawk High Resolution or MINI Hawk High Speed imagers.

Q. What version of the Easy Setup Program (ESP) supports the MINI Hawk?

A. The MINI Hawk products will first be supported in ESP 5.2 which will be available in late March, 2009 at the Microscan Download Center and on the Microscan Tools CD.

Q. Can my current Quadrus MINI be upgraded to X-Mode?

A. X-Mode 1.0 for Imagers is available for download in the Microscan Download Center. Please contact the Microscan Help Desk for additional information.

Q. How can I determine which version of the MINI Hawk I have?

A. You can review the FISes included in this document or look at the Serial Number label on the bottom of the reader for the following designations:

HR = High Resolution

HS = High Speed

Q. How can I receive an in-person demonstration of the MINI Hawk and learn more about other Microscan products and solutions?

A. Contact your Regional Sales Manager

Q. When will the MINI Hawk be available?

A. March, 2009

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