QUADRUS® MINI

Versatile Mini Imager for Auto ID

The Quadrus MINI solves a wide range of data tracking and traceability needs across all industries. The 1.3 megapixel imager reads all standard 2D or linear barcodes, plus multiple codes per capture. Dynamic real time autofocus automatically reads different codes, at varying distances, while in motion.

With easy setup, flexible programming, and powerful image processing, the Quadrus MINI is an ideal solution for virtually all barcode applications.

Quadrus MINI: At a Glance

- *Decodes/second: up to 10*
- *1.3 Megapixel Sensor*
- *Patented Quadrus Technology*
- *Autofocus*

ESP® Easy Setup Program: Single-point software provides quick and easy setup and configuration of all Microscan readers.

EZ Button: This performs reader setup and configuration with no computer required.

Visible Indicators: Performance indicators include "good read" green flash, LEDs and symbol positioning tool.

Options: ESD Safe, USB, EZ Trax Software

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

Quadrus MINI: Available Codes

Linear — All Standard

2D Symbols — Data Matrix, QR

Stacked — MicroPDF, PDF417, GS1 Databar

Autofocus
For real time dynamic autofocus, position the symbol at the center of the field of view, and push the EZ button. The Quadrus MINI automatically adjusts focal distance and sets internal parameters to optimize the symbol.

Megapixel Processing
Each imager features megapixel processing for reading multiple small, high density codes, long 1D codes, and decoding up to 100 symbols in a single read capture.

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.

Ease of Use
The imager series includes such user-friendly features as visible performance indicators, ESP® software, and one touch setup and configuration.

Compact Shape/Size
The Quadrus MINI's small form factor allows for flexible positioning in tight spaces or mounting into robotic applications.

EZ Trax™ Option
Image capture and storage software provides tracking of symbol images.

Application Examples
- Printed circuit boards
- Electronics assembly
- Assembly line manufacturing
- Component tracking
- Robotics

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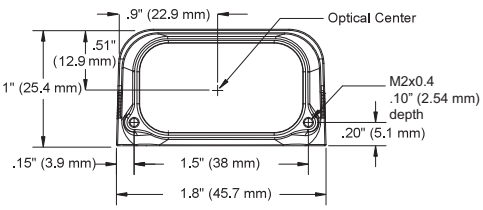
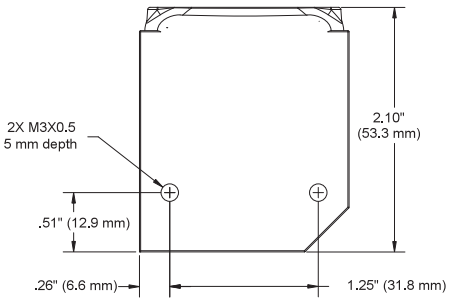
Quadrus® MINI Specifications and Options

Front

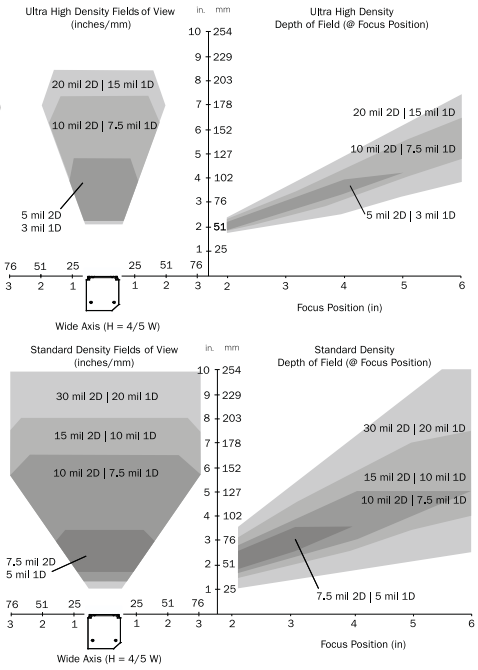


Base



Note: Nominal dimensions shown. Typical tolerances apply.

READ RANGES (GRAPHS AND TABLES)



Narrow-bar-width		Field of View (maximum)	Read Range (using autofocus)
1D	2D		
Ultra High Density			
.0033” (0.08 mm)	.005” (0.13 mm)	2.2” (56 mm)	2.0 to 4.4” (51 mm to 112 mm)
.0075” (0.19 mm)	.010” (0.25 mm)	3.6” (91 mm)	1.8 to 6.7” (46 mm to 170 mm)
.015” (0.38 mm)	.020” (.51 mm)	4.0” (102 mm)	1.9 to 7.7” (48 mm to 196 mm)
High Density			
.005” (0.13 mm)	.0075” (0.19 mm)	3.1” (79 mm)	1.5 to 6.0” (38 mm to 152 mm)
.0075” (0.19 mm)	.010” (0.25 mm)	4.2” (107 mm)	1.2 to 7.0” (30 mm to 178 mm)
.015” (0.38 mm)	.020” (0.51 mm)	5.6” (142 mm)	0.9 to 9” (23 mm to 229 mm)
Standard Density			
.005” (0.13 mm)	.0075” (0.19 mm)	3.2” (81 mm)	1.8 to 3.5” (46 mm to 89 mm)
.0075” (0.19 mm)	.010” (0.25 mm)	4.2” (107 mm)	1.6 to 5.0” (41 mm to 127 mm)
.010” (0.25 mm)	.015” (0.38 mm)	6.8” (173 mm)	1.4 to 7.5” (36 mm to 191 mm)
.020” (0.51 mm)	.030” (0.76 mm)	9.5” (241 mm)	1.0 to 10” (25 mm to 254 mm)

Subject to change. Contact Microscan for updated graphs.

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: 1998 ITE Immunity Standard
Radiated and Conducted Emissions of ITE Equipment: EN 55022:98 ITE Disturbances

LIGHT SOURCE
Type: High output LEDs

LIGHT COLLECTION OPTIONS
Progressive scan, square pixel. Software adjustable shutter speed, electronic shutter
SXGA: 1280 by 1024 pixels

SYMBOLOGY TYPES
2D Symbologies: Data Matrix (ECC 0-200), QR Code
Stacked Symbologies: PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)
Linear Barcodes: 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 10 decodes per second
Focal Range: 2 to 6” (50.8 to 152.4 mm) (autofocus)

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

ELECTRICAL
Power: 5 VDC +/– 5 %, 200 mV p-p max. ripple, 554 mA @ 5 VDC (typ.)
Optional Int.: 10-28 V Accy

COMMUNICATION PROTOCOLS
Standard Interface: RS-232, RS-422, RS-485, or USB

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[a]			Out
8	Default configuration[b]			In
9	Trigger			In
10	CTS	Aux RxD	RxD (+)	In
11	Output 3 TTL[a]			Out
12	New Master (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.

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
Certified ISO 9001:2008 Quality Management System

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. Free extended 3 year warranty upon online product registration.

MICROSCAN®

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