



QUADRUS[®] MINI

Versatile Mini Imager for ID Data Tracking



Compact Shape/Size

ACTUAL SIZE SHOWN

Height: 1" (25.4 mm)
Width: 1.80" (45.7 mm)
Length: 2.10" (53.3 mm)



Wide Field of View, Autofocus

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.









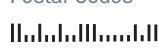
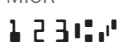


Visible Indicators: Performance indicators include "good read" green flash, LEDs and symbol positioning tool.

Options: Q-Mode, OCR, EZ Trax Software.

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

Quadrus MINI: Available Codes

Linear	All Standard 	2D Symbols	Data Matrix 	QR 
Stacked	MicroPDF 	PDF417 	GS1 Databar 	
Optional (Q-Mode)	Micro QR 	Aztec 	Postal Codes 	OCR-A ABC34
			MICR 	

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 bar codes, 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 bar code applications.

Autofocus

Position the symbol at the center of the field of view, and push the EZ button for a true autofocus experience. The Quadrus MINI automatically adjusts focal distance and sets internal parameters to optimize reading of the symbol.

Megapixel Processing

Megapixel processing allows for reading multiple small, high density codes or long 1D codes. The Quadrus MINI can read high density codes down to 3.3 mil, and can decode up to 100 symbols in a single read capture.

Wide Field of View

High resolution zero-distortion optics and a wide field of view allow linear and 2D codes as large as 2" (50.8 mm) square to be read as close as 1" (25.4 mm) with the optional right angle mirror.



Q-Mode Option

Q-Mode algorithms consistently decode a wide range of code types, enhance the Field of View, and add the ability to decode Micro QR, Aztec, Postal codes, OCR and MICR codes.

EZ Trax[™] Option

Image capture and storage software provides tracking of symbol images.

Compact Shape/Size

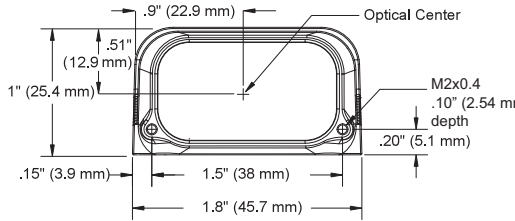
The Quadrus MINI's small form factor allows for flexible positioning in tight spaces or mounting into robotic applications.

Application Examples

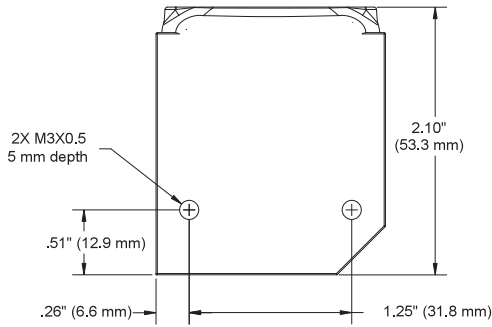
- Printed circuit boards
- Electronics assembly
- Assembly line manufacturing
- Component tracking
- Robotics

QUADRUS[®] MINI SPECIFICATIONS AND OPTIONS

Front



Base



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



SYMBOLGY TYPES

2D Symbolgies: Data Matrix (ECC 0-200), 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
Q-Mode Option: Micro QR Code, Aztec Code, Postal Codes, OCR-A, OCR-B, MICR

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

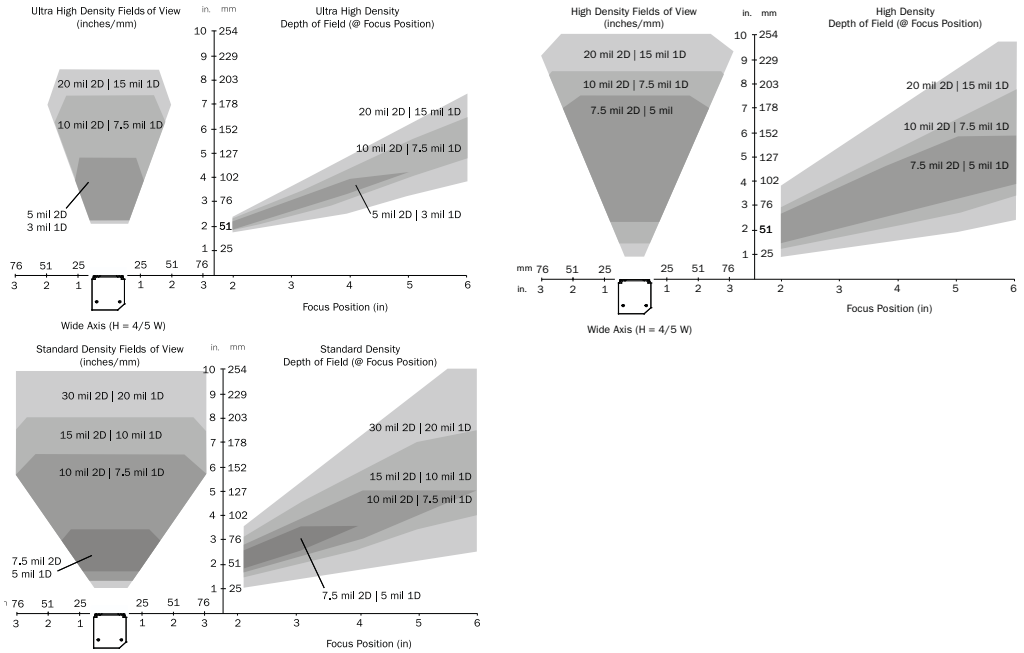
INDICATORS

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

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" (.13 mm)	2.2" (56 mm)	2.0 to 4.4" (51 mm to 112 mm)
.0075" (0.19 mm)	.010" (.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" (.19 mm)	3.5" (89 mm)	1.5 to 7.5" (38 mm to 191 mm)
.0075" (0.19 mm)	.010" (.25 mm)	4.2" (107 mm)	1.2 to 8.5" (30 mm to 216 mm)
.015" (0.38 mm)	.020" (.51 mm)	5.6" (142 mm)	0.9 to 10" (23 mm to 254 mm)
Standard Density			
.005" (0.13 mm)	.0075" (.19 mm)	3.2" (81 mm)	1.8 to 3.5" (46 mm to 89 mm)
.0075" (0.19 mm)	.010" (.25 mm)	4.5" (114 mm)	1.6 to 6.5" (41 mm to 165 mm)
.010" (0.25 mm)	.015" (.38 mm)	6.8" (173 mm)	1.4 to 8.0" (36 mm to 203 mm)
.020" (0.51 mm)	.030" (.76 mm)	9.5" (241 mm)	1.0 to 10" (25 mm to 254 mm)

Note: Data based on Q-Mode models. Subject to change. Contact Microscan for updated graphs.

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.

COMMUNICATION PROTOCOLS

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

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



ISO 9001:2000
Certified QMS

ROHS/WEEE COMPLIANT

ISO CERTIFICATION

Issued by TÜV USA Inc, Member of TÜV NORD Group, Cert No. 06-1080

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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.

MICROSCAN[®]

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