

# QUADRUS<sup>®</sup> MINI 3 MEGAPIXEL



## High Resolution Mini Imager For ID

The Quadrus MINI 3 megapixel imager provides the highest performance available in miniature "mini" imagers for data tracking. It is the only imager to decode tiny, high density codes of 3 mil or smaller.

With the flexibility to read tiny 2D codes, long linear bar codes, and up to 100 codes per capture, the Quadrus MINI 3 is the most powerful mini ID imager available for virtually all bar code applications.

### Quadrus MINI 3: At a Glance

- Decodes/second: up to 4
- High Resolution 3 Megapixel Imaging
- Patented Quadrus Technology
- Dynamic Autofocus



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



EZ Trax<sup>™</sup>: Image capture and storage software provides tracking of symbol images.



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



Visible Indicators: Performance indicators include "good read" green flash and LEDs, as well as the label positioning tool.

For more information on this product, visit [www.quadrusmini.com](http://www.quadrusmini.com).

### Quadrus MINI 3: Available Codes

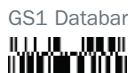
Linear Bar Codes



2D Symbols



Stacked Symbols



#### Megapixel Imaging

The processing power of 3 megapixel imaging provides the highest resolution and widest field of view of any mini ID imager.

#### Capture Multiple Codes

The wide field of view can decode up to 100 different codes in a single read capture, including both tiny 2D and long linear codes. All standard linear and 2D code formats are supported.

#### Real Time Autofocus

Automatically read different codes, at varying distances, while in motion with the Quadrus MINI 3. Dynamic real time autofocus ensures that no manual optics adjustments are needed.

#### Read Tiny Codes

3 megapixel image processing ensures high resolution to read tiny 2D codes barely visible to the human eye, down to 2.5 mil.



#### Q-Mode Option

Q-Mode algorithms provide the most consistent decoding available for a wide range of code types. Q-Mode also enhances the Field of View and adds the ability to decode Micro QR, Aztec, and Postal codes.



Postal Codes



#### Install Anywhere

The small size and compact shape of Quadrus MINI 3 allows for flexible positioning, even in tight spaces or mount- ing onto robotic applications.

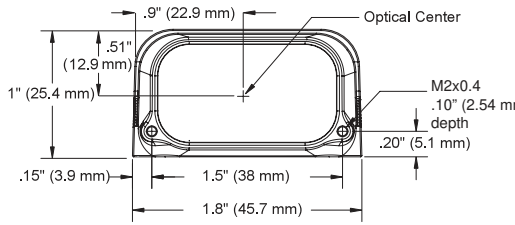
#### Application Examples

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

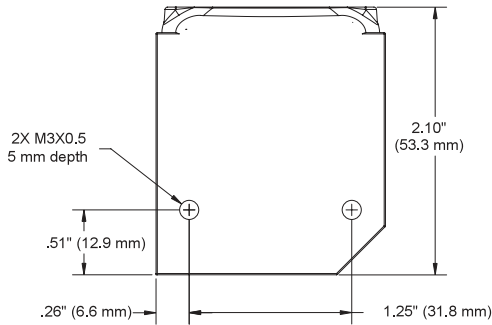
**MICROSCAN<sup>®</sup>**

# QUADRUS<sup>®</sup> MINI 3 SPECIFICATIONS AND OPTIONS

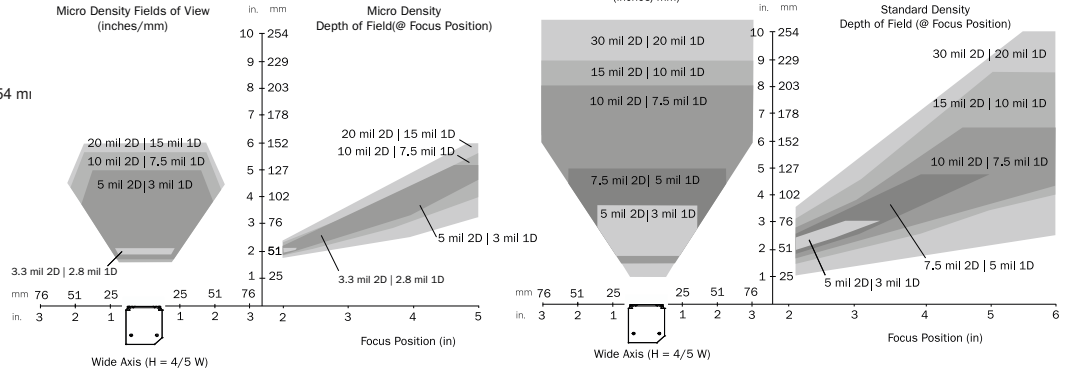
## Front



## Base



## READ RANGES (GRAPHS AND TABLES)



Narrow-bar-width		Field of View (maximum)	Read Range (using autofocus)
1D	2D		
<b>Micro Density</b>			
.0028" (.07mm)	.0033" (.08 mm)	1.2" (30.4 mm)	1.9 to 2.0" (48.3 mm to 50.8 mm)
.0033" (.08 mm)	.005" (.13 mm)	3.0" (76.2 mm)	1.9 to 5.0" (48.3 mm to 127 mm)
.0075" (.19 mm)	.010" (.25 mm)	3.4" (86.4 mm)	1.7 to 5.6" (43.2 mm to 142.2 mm)
.015" (.38 mm)	.020" (.51 mm)	3.6" (91.4 mm)	1.7 to 6" (43.2 mm to 152.4 mm)
<b>Standard Density</b>			
.0033" (.08 mm)	.005" (.13 mm)	3.2" (81.3 mm)	1.9 to 3.5" (48 mm to 89 mm)
.005" (.13 mm)	.0075" (.19 mm)	5.0" (127 mm)	1.8 to 5" (46 mm to 127 mm)
.0075" (.19 mm)	.010" (.25 mm)	6.2" (157.5 mm)	1.6 to 8" (41 mm to 203 mm)
.010" (.25 mm)	.015" (.38 mm)	8.5" (215.9 mm)	1.4 to 9" (36 mm to 228 mm)
.020" (.51 mm)	.030" (.76 mm)	9.5" (241 mm)	1.0 to 10.5" (25 mm to 266.7 mm)

**Note: Data based on Q-Mode models. 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 102°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  
**QXGA:** 2048 by 1536 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, Pharmacode, UPC/EAN, Codabar, Code 93  
**Q-Mode Option:** Micro QR Code, Aztec Code, Postal Codes

## READ PARAMETERS

**Pitch:** ±30° **Skew:** ±30° **Tilt:** 360°  
**Decode Rate:** Up to 4 decodes per second @ QXGA  
**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

## 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.

## COMMUNICATION PROTOCOLS

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

## ELECTRICAL

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

## 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.

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