

Product Overview

DE03 Micro Embedded 2D Barcode Scan module

The DE03's ultra small form factor combined with its high resolution image sensor make it the perfect fit for demanding scanning applications.

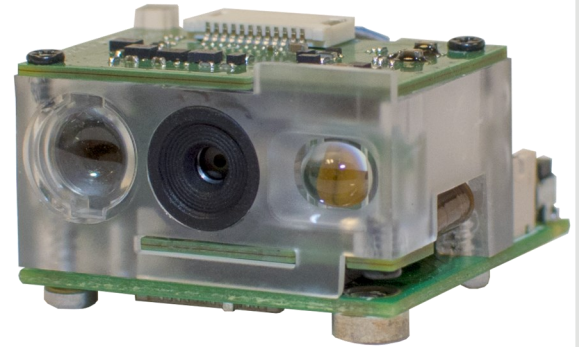
At just 22.61 L x 24 W x 14.61 H mm, the DE03 provides a highly compact form factor. The scan module's CMOS 1280 x 800 megapixel image sensor and fast onboard processor are capable of up to 120 frames per second. The DE03 features also include increased reading on skew angles of 60 degrees and an increased shock rating of 3500G. The DE03 is capable of reading all 1D and 2D codes including high resolution and high density codes such as those found on microtiter plates, test tubes, and other lab sample carriers.

The DE03 also has a wide angle model which facilitates close range reading on long barcodes. With a minimum scan distance of around 14mm depending on barcode, the DE03 wide angle is perfect for ultra compact applications.

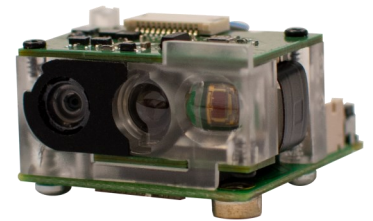
The DE03 embedded scan module supports both UART, USB, and RS232 communications. The reader also includes easy mounting points, simplifying design and integration within OEM devices.

Features

- Extremely compact size
- White light illumination and green LED aimer
- Excellent Value/Performance
- Excellent reading of all 1D/2D codes on print or displayed on mobile device or computer screens
- Megapixel Image Sensor
- Beeper out, trigger button, HW trigger



DE03-003



DE03-006

Applications



The DE03 is perfectly suited for OEM applications and specifically designed for embedded barcode requirements in:

- Medical devices
- Lab Automation systems
- Kiosks
- Vending machines
- Bedside point of care devices
- Lottery Machines
- Self Service Systems
- Loyalty reward programs

Technical Specifications

PHYSICAL CHARACTERISTICS

DIMENSIONS	MAX: 22.4 L x 22.4 W x 14.6 H mm / .88 L x .88 W x .57 H in
WEIGHT	6.2 g / 0.2 oz
INTERFACE	UART (4 Pin DF13), USB (4 Pin DF13), RS232 (4 PIN DF13), 2 pin hw trigger in

ELECTRICAL

INPUT VOLTAGE	4.75—5.25 VDC	UART versions
	4.75—5.25VDC	USB versions
	4.75—5.25VDC	RS232 versions

ENVIRONMENTAL

AMBIENT LIGHT	0 - 100,000 lux
HUMIDITY	up to 95% (NON –CONDENSING)
SHOCK	3500 G at 23 °C at 0.4 m sec.
VIBRATION	3 axes, 1 hour per axis, 2.54 cm (1 in) peak to peak displacement (5 –13 HZ), 10G acceleration (13-500Hz), 1 G acceleration (500—2K Hz)
TEMPERATURE	Operating: -30 to 60 °C / -22 to 140°F Storage/Transport: -40 to 70 °C / -40 to 158 °F
MTBF	1.55Mhr

CERTIFICATIONS

ENVIRONMENTAL SAFETY	REACH, RoHS, CE
----------------------	-----------------

READING RANGES (DE03-006, -007, -008)

TYPICAL DEPTH OF FIELD	Minimum distance determined by symbol length scan angle, printing resolution, contrast, and ambient light dependent. 1D / 2D CODES
	100% 13 mils UPC: 2.3 to 36.5 cm / 0.91 to 14.37 in
	5 mils Code 39: 2.5 to 16.6 cm / 0.98 to 6.54 in
	7 mils QR: 2 to 10.9 cm / 0.79 to 4.29 in
	20 mils QR: 1.9 to 32.9 cm / 0.75 to 12.95 in
	10 mils DataMatrix: 1.4 to 16 cm / 0.55 to 6.29 in

READING PERFORMANCE

IMAGER SENSOR	1280 x 800 pixels 1280 x 1080 pixels (Wide Angle Models)
ILLUMINATION	White LED Visible Red LED (Wide Angle Models)
AIMING	Green Cross LED
SYMBOL CONTRAST	20% min ratio
FIELD OF VIEW	47° H x 30° V 69° H x 60° V (Wide Angle Models)
READING ANGLE	Tilt: 360°, Pitch: +/- 60°, Skew: +/- 60° Tilt: 360°, Pitch: +/- 60°, Skew: +/- 65° (Wide Angle)
READING INDICATORS	Beeper
MOTION TOLERANCE	6 m/s

DECODING CAPABILITY

1D / LINEAR CODES	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes.
2D CODES	Aztec Code, China Han Xin Code, Data Matrix, MaxiCode, Micro QR Code, QR Code
POSTAL CODES	Australian Post, British Post, Canadian Post, China Post, IMB, Japanese Post, KIX Post, Korea Post, Netherlands Post, Planet Code, Postnet
STACKED CODES	Codablock A, Codablock F, PDF417, MicroPDF417

READING RANGES

TYPICAL DEPTH OF FIELD	Minimum distance determined by symbol length scan angle, printing resolution, contrast, and ambient light dependent. 1D / 2D CODES
	100% 13 mils UPC: 4 to 49 cm / 1.6 to 19.3 in
	5 mils Code 39: 6 to 27.5 cm / 2.4 to 10.8 in
	7 mils QR: 7.2 to 19 cm / 2.8 to 7.5 in
	20 mils QR: 2.7 to 44 cm / 1.1 to 17.3 in
	10 mils DataMatrix: 5.2 to 27 cm / 2 to 10.6 in

WARRANTY

WARRANTY	15-Month Factory Warranty
----------	---------------------------

Base Models

	Part Number
DE03 Embedded OEM 2D decoded micro scan module USB interface DF13	DE03-003
DE03 Embedded OEM 2D decoded micro scan module RS232 interface DF13	DE03-004
DE03 Embedded OEM 2D decoded micro scan module UART interface DF13	DE03-005
DE03 Wide Angle Optics Embedded OEM 2D decoded micro scan module USB interface DF13	DE03-006
DE03 Wide Angle Optics Embedded OEM 2D decoded micro scan module RS232 interface DF13	DE03-007
DE03 Wide Angle Optics Embedded OEM 2D decoded micro scan module UART interface DF13	DE03-008

Accessories

USB interface cable 1M use with DE03-003	CAB-DSE-004
RS232 interface cable 1M use with DE03-004 and DE03-005	CAB-DSE-005