

Product profile

EX25

Near/Far 2D imager engine



- **Highly versatile scanning with integrated near-far area imaging technology**
- **Fast “Aim and Scan” operation**
- **Omni-directional scanning increases productivity**
- **Complies with new industry standards requiring the use of 2D barcodes**
- **Compact and highly durable design**
- **XLR range on paper barcodes**

The Intermec EX25 is the first barcode scan engine on the market with integrated near/far area imaging technology, offering the unparalleled flexibility to read 1D and 2D barcodes, omni-directionally at distances from 6 inches to over 50 feet (15 cm to 15m).

Unlike laser scanners which require retro-reflective labels to achieve long-distance scanning, the EX25 provides near and far range on paper barcodes. This allows extra long range reading of pallet labels from the ground up to the third level of stacking.

With a laser pointer and auto-determining illumination the EX25 improves scanning productivity and accuracy thanks to its ability to read barcodes omni-directionally at variable distances, lighting conditions and angles.

The EX25 scans 1D, 2D, composite and postal codes; captures images; and successfully copes with high resolution, damaged, poorly printed or partially obscured codes.

The EX25 is built to work in the most hostile environments. It operates from total darkness to full sunshine

over a large temperature range and complies to the most stringent standards for shock and vibration.

The EX25's compact size and highly durable design makes it perfect for integration into space constrained OEM devices with omni-directional near and far range requirements.

Industry standards are driving a fast adoption of 2D symbologies in multiple industries. However, in many applications the range of standard 2D imager is too limited. The EX25 solves the problem by providing the advantages of a 2D scanner without compromising on the range.

Everything has been done to simplify the integration of the EX25 engine: compact size, low power 3.3 V operation, and standard decoded RS232 interface. The EX25 shares the same Intermec Scanner Control Protocol as the other Intermec engines allowing end users to leverage their integration and design efforts across multiple OEM product platforms, reducing time to market and promoting easier product migration.

Design

Technology: Auto-Focus 2D imager

Light Source:

Auto-adaptive illumination: 617 nm highly visible LEDs
Aimer: 650nm class 1 Laser

Physical Characteristics

Dimensions: 34 mm W x 34 mm D x 21 mm H
(1.34 in W x .134 in D x .82 in H)

Weight: 42 g (1.5 oz.)

Scanning Performance

Scan Rate: up to 56 frames/s auto adaptive

Scan angle: 12° (Horizontal), 8° (Vertical)

Optical resolution: 752 (H) x 480 (V) pixels,
256 gray levels

Min x. dimension: 1D codes 0.1 mm (4 mils),
2D codes 6.8 mils

Symbologies

1D symbologies: EAN/UPC, GS1 Databar, Code

39, Code 128, GS1 128, ISBN, ISBT, Interleaved,

Matrix, Industrial and Standard 2 of 5, Codabar,

Code 93/93i, Code 11, MSI, Plessey, Telepen

2D symbologies: Data Matrix, PDF417, Micro PDF 417,
Maxicode, QR, Aztec, GS1 composite, postal codes

Interfaces

Connector: 14 pin ZIF, pitch 0.5 mm (0.2 in)

Decode and image transfer: High speed RS232 TTL
with Intermec Scanner Control Protocol (ISCP)

Electrical Characteristics

Voltage: 3.3V+/- 5%

Max Current:

Scan engine + laser: 450 mA

Motor on: 230 mA

Standby current: <10uA

Environmental Characteristics

Ambient light: Works in any lighting conditions,
from 0 to 100 000 lux

Operating temperature: -20° to 60° C (-4° to 140° F)

Storage temperature: -30° to 70° C (-22° to 158°F)

Relative humidity: 5% to 95% (non-condensing)

Shock: 2000G, 0.7ms, half sinus, 3 axes

Vibration: 8G r.m.s., from 10Hz to 500Hz,
2 hours/axis, 3 axes

Regulatory Approvals

UL recognized component, VDE certified,
RoHS Compliant

Typical Reading Distances

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.25 mm	16 cm	90 cm
	10 mils	6.30 in	3 ft
	0.5 mm	18 cm	1.8 m
	20 mils	7 in	6 ft
	1 mm	18 cm	3.9 m
	40 mils	7 in*	12.8 ft
	1.4 mm	20 cm	4.8 m
	55 mils	7.9 in*	15.8 ft
	2.5 mm	20 cm	8.7 m
	100 mils	7.9 in*	28.5 ft
100% UPC/ EAN	0.33 mm	20 cm	1.1 m
	13 mils	7.9 in*	3.6 ft
DataMatrix	0.25 mm	20 cm	74 cm
	10 mils	7.9 in*	29.1 in
	1.4 mm	20 cm	3.4 m
	55 mils	7.9 in*	11 ft
	2.5 mm	20 cm	6.8 m
	100 mils	7.9 in*	22 ft
	3.5 mm	20 cm	7.9 m
	140 mils	7.9 in*	26 ft
	5 mm	20 cm	12 m
	200 mils	7.9 in*	40 ft
	320 mils	-	15 m 50 ft

Typical reading distances measured at 20°C, 200 lux on
A grade labels

* as long as the barcode label fits the reading area

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