

EX25

Near/Far 2D Imager Engine
3rd Generation



- **Class leading** – the only auto-focusing 2D imager that can read near and far field, up to 50ft/15m
- **High performing** – reads poorly printed, damaged and bar codes down to 3mil resolution
- **Rugged** – designed to withstand extreme temperatures, vibrations and shock constraints, for extended and consistent use in tough environments
- **Ergonomic** – omni-directional bar code reading and fast “aim and scan” operation, optimized for operator productivity
- **Future proofed** – reads 1D, composite, stacked and 2D bar codes, to comply with the newest industry standards
- **Powerful** – captures high resolution images (1Mpix), extending application and customer use
- **Purpose-built** – extremely compact dimensions fit the tightest mechanical constraints, including the industry standard RS232 interface and the common Intermec communication protocol (ISCP)

Revolutionary Scanning Performance to Improve Productivity

The EX25 from Intermec is the industry's first bar code 2D imager that provides integrated near/far scanning technology featuring unparalleled flexibility to read 1D and 2D barcodes, omni-directionally at distances from 6 inches to over 50 feet (15 cm to 15m). This 3rd generation of revolutionary scanning technology translates into significant increases in user productivity.

The new EX25 advances scanning technology and delivers new levels of customer satisfaction with such enhancements as increased reading range of more than 30%. Its wider optical angle allows reading at closer distances than ever before. The EX25 efficiently reads 1D bar codes down to 3mils while enhancing user comfort.

The versatility of the EX25 eliminates the need for multiple barcode optics in OEM products, but also captures high quality images up to 1Mpix, extending its benefits to OEM customers and value add to the end user.

Breakthrough Features for Increased Ease of Use

Its omni-directional reading capability, coupled with a highly visible laser pointer,

allows users to seamlessly transition between scanning – from objects up close to 15 meters (50 feet) away. This is done without requiring the user to move from their location, even in variable lighting conditions and angles.

Unparalleled Construction for Use in Any Situation

Designed to work in the most hostile environments, the EX25 operates from total darkness to full sunshine while being exposed to a wide temperature range. The EX25 also complies with the most stringent standards for shock and vibration.

Confidence Now and Protection for the Future

This exciting and powerful engine shares the same Intermec Scanner Control Protocol as other Intermec engines, supporting enhanced and integrated design efforts across multiple OEM product platforms. For Intermec scan engine customers, this results in reduced time to market and support for improved product migration.

Everything has been done to simplify the integration of the EX25 engine into space-constrained OEM devices, including its highly durable design, compact size, low power 3.3 V operation, and standard decoded RS232 interface.

The breakthrough features of the EX25 – including the ability to support 1D, stacked, composite and 2D matrix codes – provides users with assurance their investment is protected long-term while providing immediate support for current industry standards.

Design

Technology: Auto-Focus 2D imager
Light Source: Auto-adaptive illumination:
 617 nm highly visible LEDs
Aimer: 650nm class 2 Laser

Physical Characteristics

Dimensions (WxDxH): 34 mm x 33.7 mm x 21 mm
 (1.34 in x .133 in x .83 in)
Weight: 32 g (1.13 oz.)

Scanning Performance

Scan Rate: up to 30 frames/s auto adaptive
Scan angle: 14° (Horizontal), 8.7° (Vertical)
Optical resolution: 1280 (H) x 800 (V) pixels,
 256 gray levels
Min x. dimension:
 1D codes 0.075 mm (3 mils)
 2D codes 0.167mm (6.6 mils)
Print contrast: down to 40%

Symbologies

1D symbologies: EAN/UPC, GS1 Databar (limited expanded & omni-directional), RSS, Code 39, Code 128, UCC/EAN 128, ISBN, ISBT, Interleaved/Matrix/ Industrial and Standard 2 of 5, Codabar, Code 93/93i, Code 11, MSI, Plessey, Telepen, postal codes (Australian Post, BPO, Canada Post, Dutch Post, Japan Post, PostNet, Sweden Post)
2D symbologies: Data Matrix, PDF417, Micro PDF 417, Codablock , Maxicode, QR, Aztec, GS1 composite codes

Interfaces

Connector: 14 pin ZIF, pitch 0.5 mm (0.2 in)
Decode and image transfer: High speed RS232 TTL (up to 460kbauds)
 Intermec Scanner Control Protocol (ISCP)

Electrical Characteristics

Voltage: 3.3V+/- 5%
Max Current:
 450 mA (imager+laser)
 230mA (motor)
Standby current: <32mA
Hybernate current: <3mA

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: -40° to 70° C (-40° 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, cUL, VDE, RoHS
 Class 2 Laser



Typical Reading Distances

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

Symbology	Density	Minimum Distance	Maximum Distance
Code 39	0.25 mm	15 cm	135 cm
	10 mils	5.91 in	53.15 in
	0.5 mm	16 cm	280 cm
	20 mils	6.30 in	110.24 in
	1 mm	25 cm	550 cm
	40 mils	9.84 in	216.54 in
	1.4 mm	40 cm	720 cm
	55 mils	15.75 in	283.46 in
	2.5 mm	*	1200 cm
	100 mils		472.44 in
Code 128 retro-reflective	2.5 mm	*	1300 cm
	100 mils		511.81 in
EAN 100%	0.33 mm	15 cm	160 cm
	13 mils	5.91 in	62.99 in
DataMatrix	0.25 mm	15 cm	90 cm
	10 mils	5.91 in	35.43 in
	0.76 mm	25 cm	310 cm
	30 mils	9.84 in	122.05 in
	1.4 mm	*	450 cm
	55 mils		177.17 in
	2.5 mm	*	1100 cm
	100 mils		433.07 in
	7.62 mm	20 cm	1524 cm
	300 mils	7.9 in*	50 ft

*Depends on symbology length and scan angle

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