

# EA20x

Decoded 2D Imager  
*Extended Range*



- **The first compact extended range 2D Imager - Ideal for mobile applications requiring longer reading ranges**
- **Best in class scan rate (60 frames/s) - Designed for intensive scanning and productivity**
- **Reads 1D and 2D symbologies omnidirectionally - Complies with new industry standards & future proofed**
- **Highly visible laser aimer - Enhanced comfort in use, from total darkness to bright sunshine environments**
- **Plug compatible with Intermec EA15 2D Imager - Leverages your design efforts & provides interchangeability**
- **Highly durable design - Built to withstand harsh environments**

The Intermec EA20X is the first 2D barcode scan engine on the market that combines the future proofing of 2D imaging with the extended reading range of a 1D laser scan engine (up to 80cm/31.5in on a 0.5mm/20mil 1D barcode). It is the ideal 2D scan engine for mobile solutions, particularly for in-premise applications (picking & put-away, inventory management, shipping & receiving, cross-docking applications).

Powered by Intermec patented decoding and leading edge hardware, EA20X is designed for intensive scanning usage and reaches 200 scans (1D mode) and 60 scan/s in (2D mode): Productivity is ensured. The EA20X scans 1D, 2D, composite and postal codes; it also captures images and successfully copes with high resolution, damaged, poorly printed or overlaid codes.

Industry standards are driving a fast adoption of 2D symbologies across multiple industries: choosing the EA20X 2D scan engine ensures long term investment protection as it reads any standard 1D and 2D barcode. However, in many applications the range of a standard 2D imager is too limited. The EA20X solves this issue by providing the advantages of a 2D scanner without compromising on the range.

Intermec chooses a highly visible laser aimer to ensure that the user can easily target the barcode to read, even at long

distances. Equipped with both a laser pointer and a four corner framer, as well as flood illumination, EA20X improves scanning productivity and accuracy. It reads barcodes omni-directionally at longer ranges, lighting conditions and angles.

The EA20X joins the Intermec 2D family of engines and is plug compatible with the popular EA15 engine. Developers can leverage their design efforts as well as their market breadth with the highly popular interchangeability of these engines. Everything has been done to simplify the integration of the EA20X engine: compact size, low power 3.3 V operation, and industry standard interface. The EA20X 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.

The EA20X is built to work in the most hostile environments. It operates from total darkness to full sunshine over a large temperature range and complies with the most stringent standards for shock and vibration. Its compact size and highly durable design make it ideal for integration into space constrained OEM devices with omni-directional near and far range requirements.

### Physical Characteristics

**Scan engine:** 20.9 mm W x 16.5 mm D x 12.4 mm H  
(.8 in W x .66 in D x .5 in H)  
**Decode board:** 38.1 mm W x 25.4 mm D x 6.6 mm H  
(1.50 in W x 1 in D x .26 in H)

### Weight

**Scan engine:** 15g (0.52 oz.)  
**Decode board:** 6g (0.21oz.)

### Scanning Performance

**Light Source:** 617nm Highly Visible LED,  
650nm Laser Framing/Aiming.  
**Scan Rate:** 2D mode: 60 images/s auto adaptive  
**Linear emulation mode:** 200 scans/s auto adaptive  
**Scan angle:** 26.0° (Horizontal), 16.8° (Vertical)  
**Framing Angles:** 25.0° (Horizontal), 16.0° (Vertical)  
**Optical resolution:** 752 (H) x 480 (V) pixels,  
256 gray levels  
**Print Contrast:** down to 30% on 1D, 35% on 2D  
**Min. Resolution:** 1D symbologies 0.15  
mm (6 mil), Stacked (PDF417) 0.17 (6.6  
mil) and 2D matrix 0.18 (7mil)

### 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

High speed RS232 TTL with Intermec  
Scanner Control Protocol (ISCP), SPI

### Connection

12 pin ZIF connector, pitch 0.5 mm (0.2 in)

### Electrical Characteristics

**Voltage:** 3.3V +/- 5%  
**Current:** 410mA @ 3.3V scanning with power save  
**Power saving mode:** 7mA

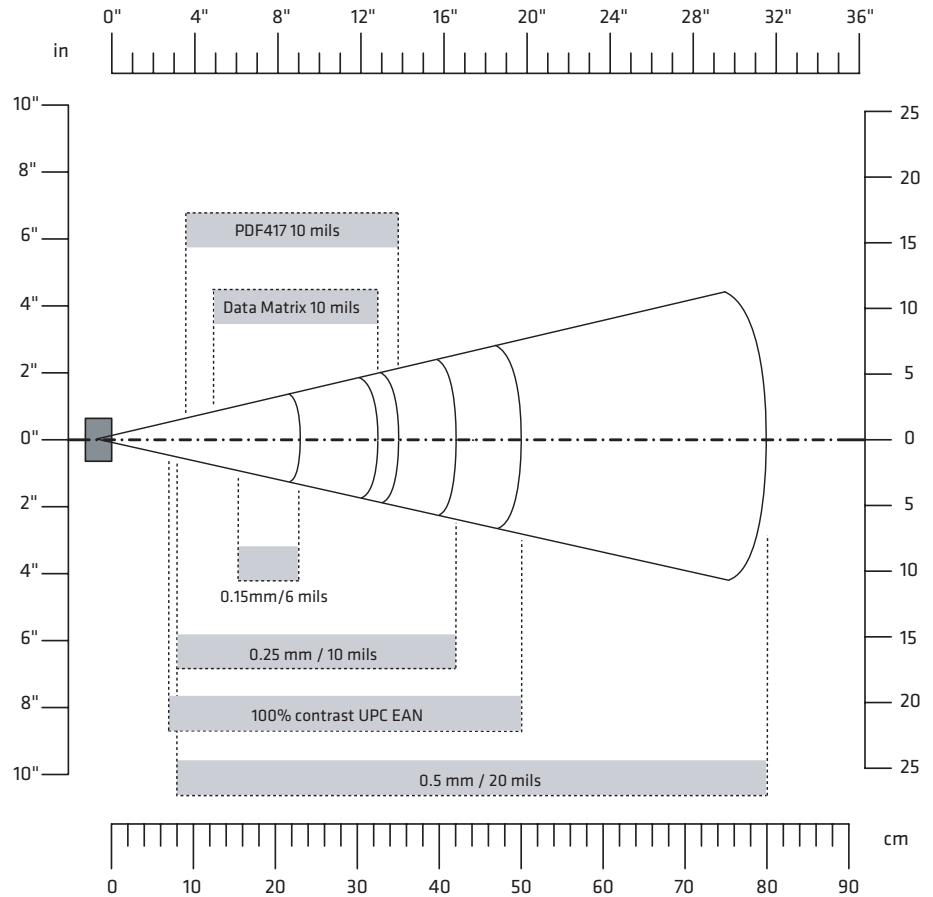
### Environmental Characteristics

**Ambient light:** from 0 to 100 000 lux  
**Operating temperature:** -20° to 50° C (-4° to 122° F)  
**Storage temperature:** -30° to 70° C (-22° to 158° F)  
**Relative humidity:** 95% Rh @ 60°C  
(140°F) Non-condensing, 4 days.  
**Shock:** 2000G, 0.7ms, half sinus, 6 directions,  
**Vibration:** 8G r.m.s., from 10Hz to 500Hz,  
2 hours/axis, 3 axes

### Regulatory Approvals

UL, cUL, VDE certified, RoHS compliant, Class 2 Laser

### Typical Reading Distances



### North America

#### Corporate Headquarters

6001 36th Avenue West  
Everett, Washington 98203  
Phone: (425) 348-2600  
Fax: (425) 355-9551

### North Latin America

#### Headquarters Office

Mexico  
Phone: +52 55 52-41-48-00  
Fax: +52 55 52-11-81-21

### South Latin America

#### Headquarters Office

Brazil  
Phone: +55 11 5502.6770  
Fax: +55 11 5502.6780

### Europe/Middle East & Africa

#### Headquarters Office

Reading, United Kingdom  
Phone: +44 118 923 0800  
Fax: +44 118 923 0801

### Asia Pacific

#### Headquarters Office

Singapore  
Phone: +65 6303 2100  
Fax: +65 6303 2199

### Internet

www.intermec.com  
Worldwide Locations:  
www.intermec.com/locations

### Sales

Toll Free NA: (800) 934-3163  
Toll in NA: (425) 348-2726  
Freephone ROW:  
00 800 4488 8844  
Toll ROW: +44 134 435 0296

### OEM Sales

Phone: (425) 348-2762

### Media Sales

Phone: (513) 874-5882

### Customer Service and Support

Toll Free NA: (800) 755-5505  
Toll in NA: (425) 356-1799



株式会社サイレンスネット

〒222-0033 横浜市港北区新横浜2-5-9  
新横浜フジカビル  
tel. 045-475-1555 fax. 045-475-3275  
www.silencenet.com