



The ICI FMX 320 P-Series is a 60 Hz fixed mounted infrared camera with unparalleled sensitivity and accuracy in a 336 x 256 radiometric imager. Operating on 6 W of power via a POE (Power over Ethernet) connection, our FMX 320 is exceptional for industrial and petrochemical monitoring as well as predictive maintenance and building security. The system provides real time radiometric data streamed directly to any desktop, laptop, tablet or embedded system. Powered by ICI's proprietary SmartIR software, which includes analytics, work order integration, alerts and notifications, and live video feeds for remote monitoring. Windows and Linux software, drivers and SDK are available for custom applications.

Features

- Unmatched image sensitivity
- Multi-device linking
- Radiometric data streaming
- Integrates into embedded systems
- Light weight, small size
- Low power < 6 W by USB
- Drivers and SDK available

Specifications

- **Pixel Resolution:** 336 x 256
- **Accuracy:** Standard: $\pm 1^{\circ}\text{C}$ ($\pm 1.8^{\circ}\text{F}$) or $\pm 1\%$
Hi-Temp: $\pm 5^{\circ}\text{C}$ ($\pm 9^{\circ}\text{F}$) or $\pm 5\%$
- **Temperature Range:**
Standard: -20°C to 120°C (-4°F to 248°F)
Hi-Temp (optional): 0°C to 500°C (32°F to 932°F)
- **Operation Range:** -40°C to 80°C
- **Storage Range:** -40°C to 70°C
- **Detector Array:** UFPA (VOx)
- **Pixel Pitch:** 17 μm
- **FOV:** lens dependent
- **Measurement Distance:** lens dependent
- **Spectral Band:** 7 μm to 14 μm
- **Thermal Sensitivity (NETD):**
< (20 mK) 0.02 $^{\circ}\text{C}$ at 30 $^{\circ}\text{C}$ (86 $^{\circ}\text{F}$)
- **Frame Rate:** 60 Hz
Optional: 9 Hz S-Series
- **Dynamic Range:** 14-bit
- **Humidity:** 5% to 95% non-condensing
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 75 G/4 G
- **Dimensions (without lens):**
157 mm x 70 mm x 70 mm (L x W x H ± 0.5 mm)
(6.18" x 2.76" x 2.76" (L x W x H ± 0.02 "))
- **Power:** 5 V DC 2 A, < 6 W
- **Weight (without lens):** < 520 g (1.15 lbs)
- **Interface:** RJ45/Ethernet + PoE
- **Video:** raw data
- **Emissivity Correction:** 0.01 to 1.0
- **IP Rating:** IP54
- Internal non-uniformity correction (NUC)

Applications

- Process control monitoring
- Industrial vision systems
- Predictive maintenance/reliability engineering
- Electrical/electronics monitoring
- Scientific research
- Building automation
- Security monitoring

Options & Accessories

- Optional: 9 Hz S-Series
- Optional: 1/4"-20 tripod
- Optional: 0 $^{\circ}\text{C}$ to 500 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ to 932 $^{\circ}\text{F}$)
- 4.1 mm Manual focus lens (80 $^{\circ}$ x 60 $^{\circ}$ FOV, +116 g)
- 5 mm Manual focus lens (58 $^{\circ}$ x 44.5 $^{\circ}$ FOV, +44 g)
- 8 mm Manual focus lens (40 $^{\circ}$ x 30 $^{\circ}$ FOV, +50 g)
- 9 mm Athermalized focus lens (35 $^{\circ}$ x 26 $^{\circ}$ FOV, +40 g)
- 12.5 mm Manual focus lens (25 $^{\circ}$ x 18.8 $^{\circ}$ FOV, +64 g)
- 16.7 mm Athermalized focus lens (18.8 $^{\circ}$ x 14 $^{\circ}$ FOV, +25 g)
- 25 mm Athermalized focus lens (12.4 $^{\circ}$ x 9.3 $^{\circ}$ FOV, +50 g)
- 30 mm Manual focus lens (10 $^{\circ}$ x 7.5 $^{\circ}$ FOV, +100 g)
- 35 mm Athermalized focus lens (8.8 $^{\circ}$ x 6.6 $^{\circ}$ FOV, +100 g)
- 50 mm Manual focus lens (6.2 $^{\circ}$ x 4.7 $^{\circ}$ FOV, +170 g)
- 100 mm Manual focus lens (3.1 $^{\circ}$ x 2.4 $^{\circ}$ FOV, +565 g)



FMX 320 P-Series