

The ICI FMX 320 P-Series is a 60 Hz fixed mounted infrared camera with unparalleled sensitivity and accuracy in a 320 x 240 radiometric imager. Operating on 10 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. 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
- Windows and Linux software
- Small size
- Light weight
- Low power < 10 W by USB
- Drivers and SDK available

## Specifications

- **Detector Array:** UFPA (VOx)
- **Pixel Pitch:** 17  $\mu$ m
- **FOV:** lens dependent
- **Measurement Distance:** lens dependent
- **Pixel Resolution:** 320 x 240
- **Spectral Band:** 7  $\mu$ m to 14  $\mu$ m
- **Thermal Sensitivity (NETD):** < 0.02  $^{\circ}$ C at 30  $^{\circ}$ C (20 mK)
- **Frame Rate:** 60 Hz
- **Dynamic Range:** 14-bit
- **Temperature Range:** -20  $^{\circ}$ C to 120  $^{\circ}$ C  
Optional: 0  $^{\circ}$ C to 500  $^{\circ}$ C
- **Operation Range:** -40  $^{\circ}$ C to 80  $^{\circ}$ C
- **Storage Range:** -40  $^{\circ}$ C to 70  $^{\circ}$ C
- **Humidity:** 5% to 95% non-condensing
- **Accuracy:**  $\pm$  1  $^{\circ}$ C
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 75 G / 4 G
- **Dimensions (without lens):** 38 mm x 39 mm x 45 mm  
(L x W x H  $\pm$  .5 mm)
- **Power:** < 1 W
- **Weight (without lens):** 400 g
- **Interface:** Ethernet/PoE
- **Video:** raw data
- **Emmissivity Correction:** 0.1 to 1.0
- **IP Rating:** IP 54
- Built in shutter
- **ICI IR Flash Software Requirements:**  
Processor: i5 or above  
RAM: 4 GB or above  
OS: Windows 8/8.1/10  
Hard Drive: 256 GB or above

## Applications

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

## Options & Accessories

- Optional: 1/4"-20 tripod
- Optional: 0  $^{\circ}$ C to 500  $^{\circ}$ C
- 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)



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