

# FMX 640 S SERIES IR CAMERA



The FMX 640 S Series IR Camera is a 9 Hz imager with unmatched sensitivity and accuracy. It is a 640 x 512 radiometric imager operating on 1 W of power via a PoE (Power over Ethernet) connection. The device provides real-time radiometric data streamed directly to any desktop, laptop, or embedded system. It is designed to be used adjunctively with other diagnostic tools. Includes IR Flash Software version 1.0 for analysis and report building. Windows and Linux software, drivers and SDKs 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 < 1 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:** 640 x 512
- **Spectral Band:** 7  $\mu$ m to 14  $\mu$ m
- **Thermal Sensitivity (NETD):** < 0.02 °C at 30 °C (20 mK)
- **Frame Rate:** 9 Hz
- **Dynamic Range:** 14-bit
- **Temperature Range:** 20 °C to 50 °C
- **Operation Range:** 0 °C to 50 °C
- **Storage Range:** -40 °C to 80 °C
- **Humidity:** 5% to 95% non-condensing
- **Accuracy:**  $\pm$  0.2 °C
- **Pixel Operability:** > 99 %
- **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 1.0 Software Requirements:**
  - Processor:** i5 or above
  - RAM:** 4 GB or above
  - OS:** Windows 8/8.1/10
  - Hard Drive:** 256 GB or above

## Applications

- Skin temperature measurement
- Hospital healthcare procedures
- Healthcare robotics
- Radiometric imaging
- Scientific research
- Breast imaging
- Airport screening
- Sub-acute healthcare settings

## Options & Accessories

- Optional: 1/4"-20 tripod
- Temperature reference source
- 12.5 mm Manual focus lens (50° x 37.5° FOV, +64 g)
- 25 mm Athermalized focus lens (24.8° x 18.6° FOV, +50 g)



FMX 320 S Series IR Camera

THESE SYSTEMS ARE INTENDED TO BE USED ADJUNCTIVELY AND NOT AS STANDALONE DEVICES.