

8640 P-SERIES BROADBAND

The ICI 8640 P-Series Broadband infrared camera has an expanded spectral band paired with unmatched image sensitivity and accuracy. This 640 x 512 radiometric imager measures less than 5 in³ and fits in the tightest of areas. The ICI 8640 Broadband has low power consumption and provides real time radiometric data. Gather data on any desktop, laptop, tablet or embedded system. Windows and Linux software, drivers and SDK are available for any and all custom applications. Integrates into the Sensor Control Module for UAV applications.

Features

- Increased band: 3 μm to 14 μm
- 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 μm
- **FOV:** lens dependent
- **Measurement Distance:** lens dependent
- **Pixel Resolution:** 640 x 512
- **Spectral Band:** 3 μm to 14 μm
- **Thermal Sensitivity (NETD):** < 0.02 $^{\circ}\text{C}$ at 30 $^{\circ}\text{C}$ (20 mK)
- **Frame Rate:** 60 Hz
- **Dynamic Range:** 14-bit
- **Temperature Range:** -20 $^{\circ}\text{C}$ to 120 $^{\circ}\text{C}$
Optional: 0 $^{\circ}\text{C}$ to 500 $^{\circ}\text{C}$
- **Operation Range:** -40 $^{\circ}\text{C}$ to 80 $^{\circ}\text{C}$
- **Storage Range:** -40 $^{\circ}\text{C}$ to 70 $^{\circ}\text{C}$
- **Humidity:** 5% to 95% non-condensing
- **Accuracy:** \pm 0.1 $^{\circ}\text{C}$
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 75 G/4 G
- **Dimensions (without lens):** 45 mm x 45 mm x 45 mm
(L x W x H \pm .5 mm)
- **Power:** < 1 W
- **Weight (without lens):** 67 g
- **Interface:** USB 2.0
- **Video:** Raw data
- **Emissivity Correction:** 0.1 to 1.0
- **IP Rating:** IP 54
- Built in shutter
- Aluminum enclosure

Patent No. 9880552

Applications

- Process control
- Robotics
- Industrial vision systems
- Medical radiometric imaging
- Aerial radiometric imaging
- UAV integration
- Scientific research
- Building automation
- Security monitoring

Options

- 8 mm Manual focus lens (80 $^{\circ}$ x 60 $^{\circ}$ FOV, +50 g)
- 9 mm Athermalized focus lens (70 $^{\circ}$ x 52 $^{\circ}$ FOV, +40 g)
- 12.5 mm Manual focus lens (50 $^{\circ}$ x 37.5 $^{\circ}$ FOV, +64 g)
- 16.7 mm Athermalized focus lens (37.5 $^{\circ}$ x 28 $^{\circ}$ FOV, +25 g)
- 25 mm Athermalized focus lens (24.8 $^{\circ}$ x 18.6 $^{\circ}$ FOV, +50 g)
- 30 mm Manual focus lens (20 $^{\circ}$ x 15 $^{\circ}$ FOV, +100 g)
- 35 mm Athermalized focus lens (17.6 $^{\circ}$ x 13.2 $^{\circ}$ FOV, +100 g)
- 50 mm Manual focus lens (12.4 $^{\circ}$ x 9.3 $^{\circ}$ FOV, +170 g)
- 100 mm Manual focus lens (6.2 $^{\circ}$ x 4.7 $^{\circ}$ FOV, 565 g)
- High temperature range: 0 $^{\circ}\text{C}$ to 500 $^{\circ}\text{C}$
- Sensor Control Module



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ICI cameras all fall under US Federal Law and Export Control.