



The ICI SWIR infrared camera employs a 640 x 512 Indium Gallium Arsenide focal plane array, allowing the camera to be highly sensitive to energy in the near-infrared (NIR) and shortwave infrared (SWIR) wavebands from 0.9 μm to 1.7 μm , well beyond the range of silicon CCD Cameras. The ICI SWIR uses USB 2.0 for power and data power, providing real-time radiometric data streamed directly to any desktop, laptop, tablet or embedded system. Windows and Linux software, drivers and SDK are available for any and all custom applications.

Features

- Unparalleled NIR sensitivity
- Real-time radiometric data
- Native wide dynamic range
- Low power consumption
- Medium size
- Light weight
- Low power < 1 W

Applications

- UAV integration
- Robotics
- Industrial NIR imaging
- Laser instrumentation
- Aerial imaging
- Firefighting
- Scientific research
- IR reflectography

Specifications

- **Detector Array:** FPA (InGaAs)
- **Pixel Pitch:** 15 μm
- **FOV:** lens dependent
- **Measurement Distance:** lens dependent
- **Pixel Resolution:** 640 x 512
- **Spectral Band:** 0.9 μm to 1.7 μm
- **Frame Rate:** 30 Hz
- **Dynamic Range:** 14-bit, > 140 dB dynamic range*
- **Noise Equivalent Irradiance:** 8.52 x 10⁹ photons/cm²-s
- **Operation Range:** -40 °C to 90 °C
- **Storage Range:** -40 °C to 70 °C
- **Humidity:** 5% to 95% non-condensing
- **Accuracy:** ± 1 °C
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 25 G/2 G
- **Dimensions (without lens):** 29.5 mm x 46 mm x 46 mm (L x W x H $\pm .5$ mm)
- **Weight (without lens):** < 130 g
- **Interface:** USB 2.0
- Aluminum enclosure

Options

- Lens option available on request
- C lens mount
- ICI Reporter software
- Windows 32-bit SDK
- Linux SDK (x86, x64 and ARM)
- 1/4"-20 Bulkhead Mount
- Sensor Control Module



SWIR 640 P-Series

* Dynamic range can be expressed as a ratio, for example 1000:1, or it can be expressed in decibels of either power or voltage.