



The ICI Helios 640 P-Series infrared camera captures 640 x 512 radiometric images and provides accurate temperature measurements up to 500°C (932°F). A high performance device, it is compact, lightweight, and easy to install in tight spaces. Integrate the Helios into aerial systems and handheld products to meet a range of application requirements. Ask about our professional software.

Features

- High temperature measuring
- Radiometric data streaming
- Integrates into embedded systems
- USB Type-C interface
- Low power < 1 W by USB
- Compact to fit into small areas
- Light weight for UAV integration

Specifications

- **Pixel Resolution:** 640 x 512
- **Accuracy:** $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) or $\pm 2\%$
- **Temperature Range:**
 - Standard: -20°C to 150°C (-4°F to 302°F)
 - Hi-Temp (optional): 0°C to 500°C (32°F to 932°F)
- **Operation Range:** -40°C to 80°C (-40°F to 176°F)
- **Storage Range:** -45°C to 70°C (-49°F to 158°F)
- **Detector Array:** UFPA (VOx)
- **Pixel Pitch:** 14 μm
- **Focal Length:** 12.5 mm
- **Focus:** manual
- **FOV:** $39^{\circ}\times 32^{\circ}$
- **Measurement Distance:** lens dependent
- **Spectral Band:** 8 μm to 14 μm
- **Thermal Sensitivity (NETD):** < (20 mK) 0.02 $^{\circ}\text{C}$ at 30 $^{\circ}\text{C}$ (86°F)
- **Frame Rate:** 30 Hz P-Series or 7.5 Hz S-Series
- **Dynamic Range:** 14-bit
- **Humidity:** 5% to 95% non-condensing
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 40 G/4.3 G
- **Dimensions (without lens):** 44.5 mm x 43.0 mm x 63.5 mm (W x H x L ± 0.5 mm) (1.75" x 1.75" x 2.50" (W x H x L ± 0.02 "))
- **Power:** 4V ~ 6V DC, < 1.4W
- **Weight (without lens):** 76 g (2.68 oz)
- **Interface:** USB Type-C
- **Video:** Raw data
- **Emissivity Correction:** 0.01 to 1.0
- **IP Rating:** IP54
- Internal non-uniformity correction (NUC)
- Aluminum enclosure

Applications

- Medical radiometric imaging
- Electrical inspections
- Substation monitoring
- Industrial inspections
- Plant/General maintenance
- Petroleum/Petrochemical monitoring
- Security monitoring
- Quantitative inspections
- Aerial radiometric imaging
- UAV integration

Options

- Optional: 7.5 Hz S-Series
- Optional Hi-Temp: 0°C to 500°C (32°F to 932°F)
- Call for lens options



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