

PROFESSIONAL THERMAL CAMERA

HIGH PERFORMANCE DEVICE

The I-Cam 640 P-Series is a 640 x 480 resolution imager that allows thermographers to pinpoint overheating components and take accurate temperature measurements. Perform thermal analysis and build panoramic mosaics. Features audio and visual alarms as well as interval photography to capture images automatically. Create report documents and print instantly over Wi-Fi connection. An optional high temperature filter is available to extend measurements up to 2000°C (3632°F) targeting critical infrastructure and giving users dependable performance in extreme conditions.



I-Cam 640 P-Series



BETTER VIEWING EXPERIENCE

The ergonomic tilting lens and 5" (1280 x 720) LCD touchscreen is designed to help thermographers image quickly and comfortably at any angle, including overhead or between narrow gaps. Prevents fatigue and is best for diagnosing temperature sensitive components in hard-to-reach areas.



DETAILED THERMAL ANALYSIS

Perform analysis with 16 temperature spots, 16 lines, and 16 areas boxes of measurement. Data is saved with the images and can be exported on the SD card. Create 60 seconds of voice annotation per image and text annotation to assist in creating report documents. Create isotherms and sketch on images to differentiate areas of concern.



DOCUMENT CREATION & WI-FI PRINTING

Create PDF documents using the on-board analysis and reporting capabilities. Analysis reports can also be printed instantly via a Wi-Fi printer. Bluetooth optional.



The I-Cam 640 P-Series thermographic camera is a 640 x 480 resolution imager with a temperature calibration of -40 °C to 150 °C (-40 °F to 302 °F); an optional high temperature range up to 2000 °C (3632 °F) is available. The device has an accuracy of $\pm 1^\circ\text{C}$ ($\pm 1.8^\circ\text{F}$) or $\pm 1\%$. It is capable of quantitative thermal analysis and features alarming functions as well as document creation. Build mosaics and capture images using interval photography.

Features

- Optional high temperature calibration
- 16 spots, 16 areas, and 16 lines of measurement
- 270° rotating LCD touchscreen, 70° lens angle
- Connect to Wi-Fi or Bluetooth®
- Laser ranging measures precise distances
- Interval photography
- Build panoramic mosaics
- Automatic alarming
- Voice and text annotation
- Sketch on image
- Power management

Applications

- Insulation inspections
- Air leakage/energy saving
- Home contractor inspections
- Roof inspections
- HVAC/cold storage
- Electrical/general maintenance
- Predictive maintenance
- Building inspections
- Scientific research
- Critical infrastructure

Specifications

- **Pixel Resolution:** 640 x 480
- **Accuracy:** $\pm 1^\circ\text{C}$ ($\pm 1.8^\circ\text{F}$) or $\pm 1\%$
- **Temperature Range:**
 - Standard: -40 °C to 150 °C (-40 °F to 302 °F), 100 °C to 800 °C (212°F to 1472 °F)
 - Hi-Temp: 700 °C to 2000 °C (1292 °F to 3632 °F)
- **Operation Range:** -20 °C to 50 °C (-4 °F to 122 °F)
- **Storage Range:** -40 °C to 70 °C (-40 °F to 158 °F)
- **Detector Array:** VOx
- **Pixel Pitch:** 17 μm
- **Focal Length:** 25 mm
- **FOV:** 24.6° x 18.5°
- **I FOV:** 0.67 mrad
- **Focus:** automatic/manual
- **Measurement Distance:** minimum 0.3 m
- **Spectral Band:** 7.5 μm to 14 μm
- **Thermal Sensitivity (NETD):** < (45 mK) 0.045 °C at 30 °C (86 °F)
- **Frame Rate:**
 - Standard: 30 Hz P-Series
 - Optional: 9 Hz S-Series
- **Humidity:** 95% non-condensing
- **Pixel Operability:** > 99 %
- **Shock/Vibration:** 25 G/2 G
- **Dimensions (without lens):** 206 mm x 135 mm x 145 mm (L x W x H ± 0.5 mm) (8.11" x 5.31" x 5.71" (L x W x H ± 0.02 "))
- **Power:** DC 12V
- **Battery:** Li-ion, rechargeable
- **Operation Time:** ≥ 4 hours
- **Charging Time:** 3 hours
- **Power Management:** adjustable
- **Weight (with battery):** 1.35 kg (2.98 lbs)
- **Interface:** USB Type-C, Micro HDMI, Ethernet
- **Document Format:** PDF
- **Printing:** via computer, Wi-Fi
- **Video Storage:** internal
- **Video Format:** MP4 (without data) or IRGD (with data)
- **Image Modes:** IR image, visible image, picture-in-picture, enhanced (MIF)
- **Image Format:** JPG (with data)
- **Image Polarity:** 12 options + custom
- **Brightness:** adjustable
- **Digital Camera:** 13 MP
- **Super Resolution:** 1280 x 960
- **Zoom:** 1 ~ 35X continuous
- **Memory:**
 - Internal: 64 GB
 - SD card: up to 64 GB
- **Screen:** 5" color LCD rotating touchscreen, 1280 x 720
- **Viewfinder:** 1280 x 960 LCOS screen
- **Voice Annotation:** 60 seconds/image
- **IP Rating:** IP54
- **Laser:** Class II 650 nm, < 1 mW, supports laser ranging
- **Languages:** multinational
- **Speaker & microphone** with adjustable volumes
- Automatic alarms
- Interval photography (duration and frequency)
- Internal non-uniformity correction (NUC)
- Panorama image mosaic



Options & Accessories

- Optional: 700 °C to 2000 °C (1292 °F to 3632 °F)
- Optional: 9 Hz S-Series
- Wide Angle: 13 mm (45.4° x 34.8° FOV, 1.31 mrad IFOV, 0.15 m)
- Telephoto: 55 mm (11.3° x 8.5° FOV, 0.31 mrad IFOV, 2 m)
- Ultra Telephoto: 85 mm (7.3° x 5.5° FOV, 0.2 mrad IFOV, 4 m)
- Macro Lens: 67 mm (23.3° x 17.5° FOV, 37.5 μm)
- Li-ion battery x2
- Power supply adapter
- Adapter plug x5
- Shoulder strap
- Type-C to USB cable
- Micro HDMI to HDMI cable
- Ethernet cable
- 64 GB MicroSD card
- 1/4"-20 tripod support (built-in)
- Laser (built-in)
- Microphone (built-in)
- Software CD
- Windows 32-bit SDK
- Linux SDK (x86, x64 and ARM)

