



The Global Leader in Infrared Cameras

FLIR P640

INFRARED CAMERA



High resolution thermal and visual image quality, spot size resolution, temperature measurement accuracy, and a host of advanced features make the FLIR P640 a smart choice for IR surveys.



Wireless Remote



Features both thermal and visual camera capabilities – at the touch of a button!

- 640 x 480 Infrared Detector
- Outstanding Thermal Sensitivity: 0.06° C
- TripleFusion Picture In Picture Technology
- Upgradeable to P660
- Optional WLAN Remote Control
- Target Illuminator for Low-light Areas
- Voice Annotation with Each Image
- High Resolution Array for Viewing at Greater Distances

Easy to Operate

The FLIR P640 is an affordable easy-to-operate high-performance infrared camera that delivers accurate temperature measurements at productive and safe distances. This makes the P640 camera an ideal solution for cost-effective and efficient predictive maintenance programs.

High Definition 640 X 480 Detector

The P640 infrared camera includes a high-definition 640 X 480 infrared detector that delivers exceptional resolution and image quality for accurate infrared surveys. As a result, accurate readings can be taken on smaller objects at safe distances. Readings can be taken at ±2° C (3.6° F) of reading.

A Safe Solution

The P640 features a large target-distance to spot-size ratio for accurate measurements and analysis. The P640 is upgradeable to the P660, so your investment is protected for years to come.

Survey at Safe Distances

Many IR surveys are conducted in high voltage areas. For safety reasons, conductive cabling cannot be used to remotely control cameras. The P620 can be operated with the optional handheld Wireless LAN remote control and display. The P640 includes a viewfinder and high resolution LCD for added flexibility in field operations. The tilt-able viewfinder is ideal for outdoor work, especially in bright sunlight and viewing targets under all lighting conditions. The 5.6" wide screen LCD is a productive solution for indoor viewing of images.

TripleFusion™



The FLIR TripleFusion takes infrared thermography to a new level by overlaying the rich detail of an infrared image over a hi-res visible light image in real-time, making it easier to identify critical problems more quickly and accurately. FLIR's TripleFusion is fully scalable, permitting you to resize the thermal image as needed.

Visual Target Illuminator

The P640 visual camera has a target illuminator or lamp for taking pictures in low light areas, such as electrical cabinets. The target illuminator ensures good reference visual images can be documented regardless of the lighting conditions.

FLIR Reporter Software

Images are easily downloaded and managed using Reporter software. Images can be emailed, and viewed in Microsoft Windows programs without the need for any additional proprietary software. Reporter software offers trending and image fusion for easy blending of infrared and digital photos. With Automatic Report Generation, you can easily create reports to combine all your inspection information.

Productive Auto Focus

Manual and Auto Focus capabilities allow operators greater flexibility when collecting images in a range of settings. Auto Focus is helpful for hard to focus situations and allows new users to be productive sooner.

Safety Enhancing Laser Locator

The laser locator on the P640 helps associate the hot spot on the IR image with the exact location of the problem. This feature greatly enhances the user's safety by eliminating the tendency to "finger point" at problems in high voltage and other hazardous environments.

Voice Annotation with Each Image

The P640 allows the operator to record a full 30 seconds of digital voice and embed it with each IR image. This allows a full description of the target and fault condition to be recorded in the field and then documented in the IR report. In addition, text comments for each image can be entered manually or preloaded from a PC with ThermoCAM Reporter software.

3 hours Run-Time on a Single Battery

The P640 includes an intelligent charging station capable of conditioning and charging two 3-hour batteries at a time. In addition, like a cell phone, you can plug the P640 into an AC outlet or optional 12V cable and charge the battery while still in the camera.

Infrared Certification Training and Support

In addition to worldwide service and support, FLIR Systems offers Thermographer certification classes at its state-of-the art facilities near Boston, Massachusetts. The FLIR Systems Infrared Training Center (ITC) is the Global leader in IR Thermography Training.

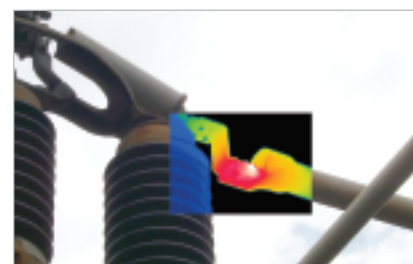
FLIR P640 Technical Specifications

Imaging Performance	
Thermal	
Field of view/min focus distance	24° x 18° / 0.3 m
Spatial resolution (IFOV)	0.65 mrad
Thermal sensitivity @ 50/60Hz	55mK at 30° C (86° F)
Electronic zoom / pan function	1 - 8 x continuous, including pan function
Focus	Automatic or manual
Digital image enhancement	Normal and enhanced
Detector type	Focal plane array (FPA) uncooled microbolometer; 640 x 480 pixels
Spectral range	7.5 to 13 µm
Visual	
Built-in digital video	3.2 Mpixel, full color / built-in Target Illuminator / exchangeable lens
Standard lens performance	f=8 mm / FOV 32°
Image Presentation	
Image fusion	Picture in Picture (PIP) with full control of IR window, threshold above, threshold below, threshold interval
Viewfinder	Built-in, tiltable, high-resolution color viewfinder (800 x 480 pixels)
External display	Built-in 5.6" LCD (1024 x 600 pixels)
Video output	RS170 EIA/NTSC or CCIR/PAL composite video, IEEE-1394 FireWire, USB
Measurement	
Temperature ranges	-40°C to +500°C, in 2 ranges; up to + 2000°C, optional
Accuracy (% of reading)	± 2 °C or ± 2% of reading
Measurement modes	Spots/Areas (Boxes, Circles), Isotherms (above, below, interval), Delta T
Menu controls	Palettes, load custom palettes, auto adjust (manual/continuous/based on histogram equalization), on screen live and reference image (PoP), image gallery, sequence storage, programmable storage
Alarm functions	Automatic alarm on any selected measurement function, audible/visible alarm above/below
Emissivity correction	Variable from 0.1 to 1.0 or select from listings in pre-defined material list
Measurement features	Automatic corrections based on user input for reflected ambient temperature, distance, relative humidity, atmospheric transmission, and external optics
Optics transmission correction	Automatic, based on signals from internal sensors
Image Storage	
Type	Removable SD-card (256 MB), built in RAM memory for burst recording
File format – THERMAL	Standard JPEG; 14 bit thermal measurement data included
File format –VISUAL	Standard JPEG inked with corresponding thermal image
Voice annotation of images	30 sec. of digital voice "clip" stored together with the image wired headset
Text annotation of images	Predefined by user and stored with image
Video Storage	
Type	Recording of fully radiometric IR-video clips in camera, transferable to SD-card Recording of MPEG-4 non-radiometric video to SD-card
Video Streaming	
Type	MPEG-4, IP-link using FireWire or USB
Laser LocatIR™	
Classification type	Class 2, Semiconductor AlGaInP Diode Laser: 1 mW/635 nm (red)
Power Source	
Battery type	Li-Ion, rechargeable, field-replaceable
Battery operating time	3 hours continuous operation
Charging system	In camera (AC adapter or 12V from car) or 2 bay intelligent charger
External power operation	AC adapter 110/220 VAC, 50/60Hz or 12V from car (cable with standard plug optional)
Power saving	Automatic shutdown and sleep mode (user-selectable)
Environmental	
Operating temperature range	-15° C to +50° C (5° F to 122° F)
Storage temperature range	-40° C to +70° C (-40° F to 158° F)
Humidity	Operating and storage 10% to 95%, non-condensing
Encapsulation	IP 54 IEC 529
Shock	Operational: 25G, IEC 68-2-29
Vibration	Operational: 2G, IEC 68-2-6
Physical Characteristics	
Weight	1.7 kg (3.8 lbs) w/battery
Size	120mm x 145mm x 220 mm (4.7" x 5.7" x 8.7")
Tripod mounting	1/4" – 20

Camera includes:	
Camera with visual and IR lens	
Power supply	
2 batteries (3 hours operating time on each)	
2 bay charging station	
QuickView software	
Manual and Quick Reference Card	
DS-card including USD Card Reader	
Headset	
Cables	
Lenses (optional)	
<i>Automatic lens identification</i>	
Field of view/minimum focus distance	
12° x 9° / 0.9m telelens	
45° x 34° / 0.1m wide angle lens	
Close-up 50mm 32 mm x 24 mm / 75 mm	
Interfaces	
USB / RS232	Image (thermal and visual), measurement data, voice and text transfer to PC
IrDA	Wireless communication
SD-card (2)	I/O slot; storage slot
Firewire output (IEEE 1394)	IEEE-1394 FireWire output (real-time non-radiometric video / filetransfer to PC)



Optional Wireless Local Area Network remote control and display.



FLIR Picture-In-Picture technology



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FLIR Systems Australia
Pty Ltd
10 Business Park Drive
Notting Hill, VIC
3168 Australia
Tel: +61 3 9550 2800
Fax: +61 3 9558 9853
Email: info@flir.com.au

New South Wales Office
Tel: +61 2 8853 7870
Email: info@flir.com.au

Western Australia office
Tel: +61 8 6263 4438
Email: info@flir.com.au

Queensland Office
Tel: +61 7 3861 4862
Email: info@flir.com.au