

PTI-160 Series

Easy-to-use — High performance thermal imager



Ideal for:

- *Preventive Maintenance*
- *Utilities*
- *Petrochemical*
- *Building Diagnostics*
- *Industrial Manufacturing Processes*
- *Electronics*
- *Medical/Science Applications*
- *Research & Development*
- *Automotive*
- *Pulp and Paper*
- *Food*



- Fully radiometric thermal imaging camera
- Hi resolution 160 x 120 UFPA
- High spatial resolution of 2.2 mrad
- Automatic temperature tracking (hotspot)
- Large image storage capacity of up to 1,000 radiometric thermal images
- High temperature versions available
- High level of thermal sensitivity
- Very compact and robust (IP54)
- Accurate measurement of temperature within full image
- Flip up color LCD display
- Real time imaging at 50Hz
- Integrated laser pointer
- USB interface
- Lightweight
- Intelligent power management

This is where price and performance meet.

The PTI-160 series are easy-to-use thermographic cameras which offer an optimal price/performance ratio. Equipped with an integrated high-performance UFPA detector, these cameras are quickly ready for use and deliver sharp, accurate thermal images for on-site problem analysis.

PTI-160 cameras are unique measuring instruments and feature automatic hotspot detection, up to 4 moving measurement points, a discernable acoustic alarm signal, an integrated laser pointer and close focusing distance from 0.1m to infinity.

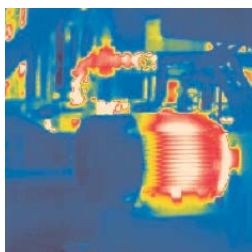
These fully-radiometric camera systems provide precise temperature measurements, optionally up to 1500°C. In addition, the cameras provide a good spatial resolution of 2.2 mrad and a high temperature sensitivity of 0.1°C.

The PTI-160 Series are compact, light weight, and durable. Offering battery operational time of up to 2½ hours and with high capacity image storage of up to 1,000 thermal images, the PTI-160 provides comfortable one-handed operation for fatigueless on-site utilization even over longer periods of time.

All interfaces are situated centrally and well protected in the base of the robust housing in compliance with IP 54 standard.



The thermal imaging cameras in the PTI-160 series are affordable and fully radiometric imaging cameras.

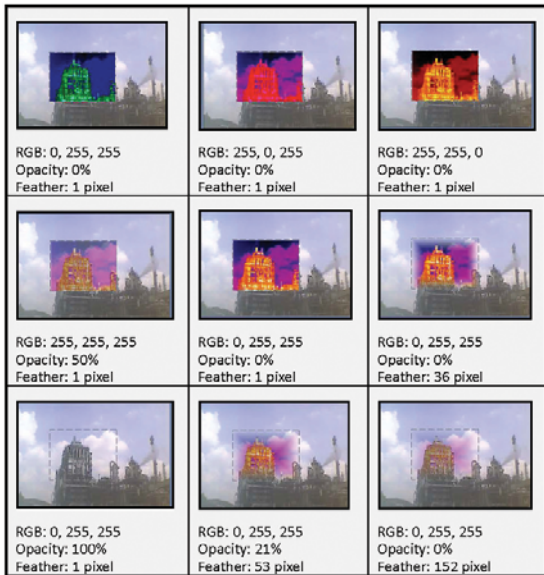


Specifications

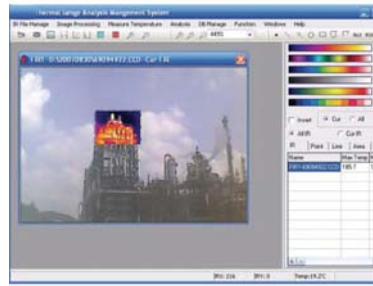
| Description | | PTI-160 | PTI-160 LT | PTI-160 MT | PTI-160 HT |
|-----------------------------|-----------------------------|---|----------------|-----------------|-----------------|
| measurement | measurement range | -20°C ~ +250°C | -20°C ~ +600°C | -20°C ~ +1000°C | -20°C ~ +1500°C |
| | accuracy | ±2 °C, ± 2% of reading | | | |
| thermal imaging performance | detector type | Focal Plane Array (FPA), uncooled microbolometer 160 x 120 pixels | | | |
| | spectral range | 8~14 µm | | | |
| | FOV | 20° x 15° | | | |
| | spatial resolution | 2.2 mrad | | | |
| | thermal sensitivity | 0.1 °C at 30 °C | | | |
| | frame rate | 50/60 Hz | | | |
| | focus | manual | | | |
| | focus distance | 4" (0.10 m) to infinity | | | |
| | digital zoom | - | | | |
| image presentation | viewfinder | - | | | |
| | display | 2.5" LCD, pseudo-colors, 6 color palettes | | | |
| measurement modes | area | - | | | |
| | movable spots | up to 4 moving temperature measurement points (3 manually, 1 automatic) | | | |
| | isotherm | yes (between max.- and min.-value) | | | |
| | temperature profile | - | | | |
| | emissivity correction | user defined 0.01 ~ 1.0 | | | |
| | measurement correction | automatic, user-defined settings of ambient temperature,distance, rel. Humidity | | | |
| image storage | type | internal flash memory up to 1,000 images | | | |
| | thermal image | PSC-format, 16 bit measurement data included | | | |
| | visual image | - | | | |
| | voice annotation | - | | | |
| | text annotation | - | | | |
| system status indicator | display | - | | | |
| laser | type | semiconductor AlGaInP diode Laser, 1 mw / 635 nm red | | | |
| | classification | class 2 | | | |
| battery system | type | Li-on, rechargeable, field replaceable | | | |
| | battery operation time | ≈ 2.5 hours of continuous operation | | | |
| | power supply operation | 8-11 V DC | | | |
| | power save mode | user defined | | | |
| environment specification | operation temperature range | -15 °C ~ +50 °C | | | |
| | storage temperature range | -40 °C ~ +70 °C | | | |
| | humidity | operating and storage 10% to 95% (not condensing) | | | |
| | encapsulation | IP 54 IEC 529 | | | |
| | shock | 25G IEC 68-2-29 | | | |
| | vibration | 2G IEC 68-2-6 | | | |
| physical characteristics | weight | 700 g | | | |
| | size | 211 x 80 x 195 mm | | | |
| | tripod mounting | 1/4 " - 20 | | | |
| interface | PC | USB | | | |
| | video output | composite video | | | |
| scope of delivery | standard | IR camera with standard 20° optics, LCD display and laser, battery charger 110/230 V, Li-ion battery, video cable, cable USB for image download on PC, manual, carrying case, software, certificate | | | |
| | optional | power supply unit (PSU) | | | |

PSC Report 8 Software – Screenshots

IR Image blending based on different settings



IR blending



CCD images in working area



Auto Hotspot

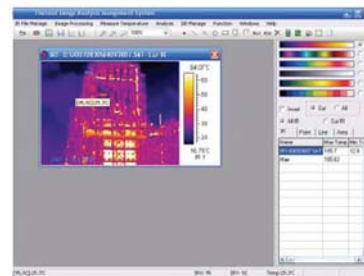
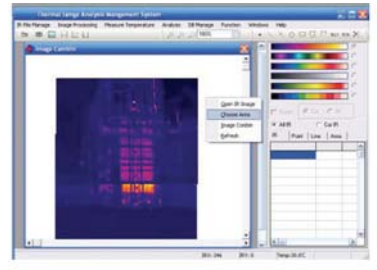


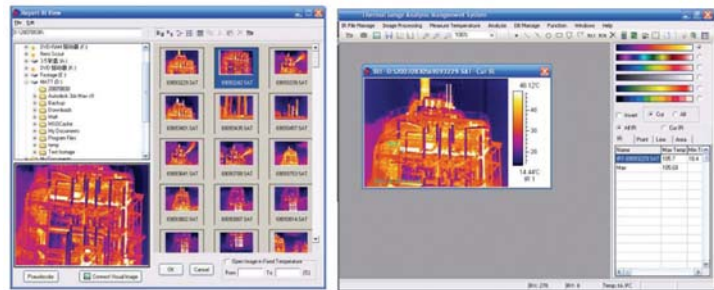
Image blending



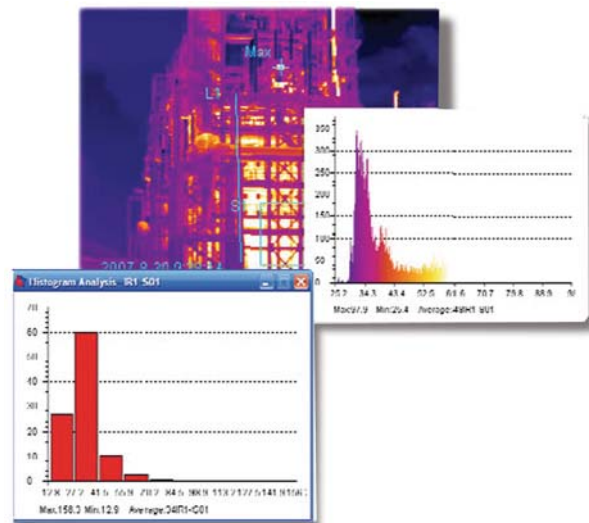
Edit Window



IR images in working area



Image—Chart—Histogram



Palettes



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