

Portable Thermal Image Camera

- Temperature range up to 1500°C
- HR model 384x288 resolution
- NETD <0,1°C
- Large 3,6" TFT Display
- Easy to use
- Autofocus
- Visible camera 2MP
- Fusion/PIP technology
- Tele/Wide lens
- SD Card memory
- USB 2.0 with Realtime video rec
- Advanced Windows Reporting Software
- Rechargeable or Alkaline battery on field replaceable



The IRtec TImage Pro is a rugged and high performance portable thermal image camera at competitive price. It opens a large new market in the industrial temperature measurement. Ergonomically designed for either hand handing, one button for shoot-and-save easy operation, it is an ideal tool for routine thermal inspection. TImage Pro will be your best helper bringing whatever you expect. With super rugged housing and rubber protection, is far more robust and shock-resistant for any tough working environment. Featured with latest PIP&Infra Fusion technology, it helps you pinpoint the problem exactly with the most efficiency. IRtech TImage Pro is unbeatable for trouble shooting electrical installations, electro-mechanical equipment, building inspection and wherever just limited by your imagination.

IRtec TImage Pro

Portable Thermal Image Camera

Technical Specifications

TImage Pro 9 HR Pro 4 XT Pro 2 + Pro 1

Image performance	Pro 9 HR	Pro 4 XT	Pro 2 +	Pro 1
Thermal				
Detector Type	Uncooled FPA Microbolometer	Uncooled FPA Microbolometer	Uncooled FPA Microbolometer	Uncooled FPA Microbolometer
Spectral Range	8 to 14 μm	8 to 14 μm	8 to 14 μm	8 to 14 μm
Pixels	384 x 288, 25 μm	160 x 120, 25 μm	160 x 120, 25 μm	160 x 120, 25 μm
Sensitivity	<100mk @ 30°C	0.1°C @ 30°C	0.1°C @ 30°C	0.1°C @ 30°C
Lens/ FOV	25mm 21.7° X 16.4°	11mm 20.6° X 15.5°	11mm 20.6° X 15.5°	11mm 20.6° X 15.5°
Focus	Manual	Automatic and Manual	Manual assisted	Manual assisted
Image Frequency	50HZ PAL/ 60HZ NTSC, non-interlaced	50HZ PAL/ 60HZ NTSC, non-interlaced	50HZ PAL/ 60HZ NTSC, non-interlaced	50HZ PAL/ 60HZ NTSC, non-interlaced
Electronic Zoom	X2	X2	X2	X2
Palette	8	8	6	4
Visual				
Built-in Digital Video	CMOS Sensor, 1600x1200 pixels(2Mpixels), 24 bit true colors	CMOS Sensor, 1600x1200 pixels(2Mpixels), 24 bit true colors	CMOS Sensor, 1600x1200 pixels(2Mpixels), 24 bit true colors	N/A
Imaging Display				
External Display	3.6" TFT LCD screen 640x480	3.6" TFT LCD screen 640x480	3.6" TFT LCD screen 640x480	3.6" TFT LCD screen 640x480
Video Output	PAL/NTSC	PAL/NTSC	N/A	N/A
Picture in Picture	PIP, IR Fusion(transparent adjustable)	PIP, IR Fusion(transparent adjustable)	IR Fusion(transparent adjustable)	N/A
Live thermal video recording	video recording on built-in flash	video recording via USB to PC	N/A	N/A
Built-in Flash memory	Yes (150images)	Yes (150images)	Yes (150images)	N/A
Measurement				
Temperature Range	-20°C to 250°C (350°C - 1500°C optional)	-20°C to 250°C (350°C - 1200°C optional)	-20°C to 250°C (350°C - 1200°C optional)	-20°C to 250°C
Accuracy	±2°C or ±2% of reading	±2°C or ±2% of reading	±2°C or ±2% of reading	±2°C or ±2% of reading
Measurement modes	Hot/cold spot and center point	Hot/cold spot and center point	Hot/cold spot and center point	Hot/cold spot and center point
Emissivity Correction	Variable from 0.01 to 1.00, by keyboard	Variable from 0.01 to 1.00, by keyboard	Variable from 0.01 to 1.00, by keyboard	Variable from 0.01 to 1.00, by keyboard
Measurement Features	Automatic correction based on distance, relative humidity, atmospheric transmission and external optics, Min/Max, DeltaT, dew point, Alarm	Automatic correction based on distance, relative humidity, atmospheric transmission and external optics, Alarm	Automatic correction based on distance, relative humidity, atmospheric transmission and external optics, Alarm	Automatic correction based on distance, relative humidity, atmospheric transmission and external optics, Alarm
Image Storage				
Media	Removable 4GB Mini SD card	Removable 2GB Mini SD card	Removable 2GB Mini SD card	Removable 2GB Mini SD card
File Format	JPEG with analysis records	JPEG with analysis records	JPEG with analysis records	JPEG with analysis records
Number of Images Stored	Up to 2000	Up to 1000	Up to 1000	Up to 1000
Voice Annotation	60 s / image	60 s / image	N/A	N/A
Laser Pointer				
Classification Type	Class 2 semiconductor laser	Class 2 semiconductor laser	Class 2 semiconductor laser	N/A
Interface				
Operating Method	Buttons	Buttons	Buttons	Buttons
USB2.0	For video and image transfer	For video and image transfer	For image transfer only	For image transfer only
Power System				
Battery Type	AA Rechargeable or Alkaline battery, field-replaceable	AA Rechargeable or Alkaline battery, field-replaceable	AA Rechargeable or Alkaline battery, field-replaceable	AA Rechargeable or Alkaline battery, field-replaceable
Charging System	Built-in battery charger	Built-in battery charger	Built-in battery charger	Built-in battery charger
Battery Operating Time	<3 hours	3 hours	3 hours	3 hours
External Power Operation	AC adapter 110/220VAC, 50/60Hz	AC adapter 110/220VAC, 50/60Hz	AC adapter 110/220VAC, 50/60Hz	AC adapter 110/220VAC, 50/60Hz
Environment				
Operating Temperature	-10°C to 50°C	-10°C to 50°C	-10°C to 50°C	-10°C to 50°C
Storage Temperature	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C	-20°C to 60°C
Humidity	Operating and storing 10% to 95%, non-condensing	Operating and storing 10% to 95%, non-condensing	Operating and storing 10% to 95%, non-condensing	Operating and storing 10% to 95%, non-condensing
Protection	IP54 IEC 529 housing	IP54 IEC 529 housing	IP54 IEC 529 housing	IP54 IEC 529 housing
Shock	Operational: 25G, IEC68-2-29	Operational: 25G, IEC68-2-29	Operational: 25G, IEC68-2-29	Operational: 25G, IEC68-2-29
Vibration	Operational: 2G; IEC68-2-6	Operational: 2G; IEC68-2-6	Operational: 2G; IEC68-2-6	Operational: 2G; IEC68-2-6
Physical specifications				
Size	111mmX124mmX240mm	111mmX124mmX240mm	111mmX124mmX240mm	111mmX124mmX240mm
Weight	0.73Kg (including battery)	0.73Kg (including battery)	0.73Kg (including battery)	0.73Kg (including battery)

Standard 4 XT packing includes : Rigid carrying case, soft carrying case, rubber cover to protect front, 2 set of battery, charger/power supply with universal plug, 2G SD card, Usb card reader, USB cable, IRAnalyzer windows software, instruction manual and certificate of calibration.

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Applications

Thermal processes

Next to time, temperature is the most frequently measured physical property. The temperature behavior is therefore a very good indicator for the status of physical systems. Too much friction generates heat, too high resistance of electrical contacts creates higher temperatures; energy losses are mostly shown by changes in temperature. Therefore one can find thermal processes in almost all industry branches.

Applications

- Predictive and preventative maintenance
- Electricity inspections
- Building diagnostics
- Technical diagnostics
- Veterinarian



AutoFocus

Irtec TImage XT has automatic focusing just pressing a key

AutoShutter

An external shutter that works as lens cover too is the ideal solution to avoid interference of the heat radiation of electronics or lenses



SD Memory Card

The standard 2G SD memory card provide a large storage capacity.

Battery

The rechargeable batteries can be replaced on field with Alkaline batteries extending the operation avoiding the risk to stop critical maintenance task.



Ergonomic

Rugged and ergonomic it is easy to operate due to simple user interface



Tripod Mounting accessory (optional)



Fusion PIP Picture in Picture

IRtec TImage XT has a built-in capability to show Infrared and Visible image with advanced fusion capability (transparency setting).

Visible Camera

2MP CMOS visible camera allow to document you inspection activity with real picture

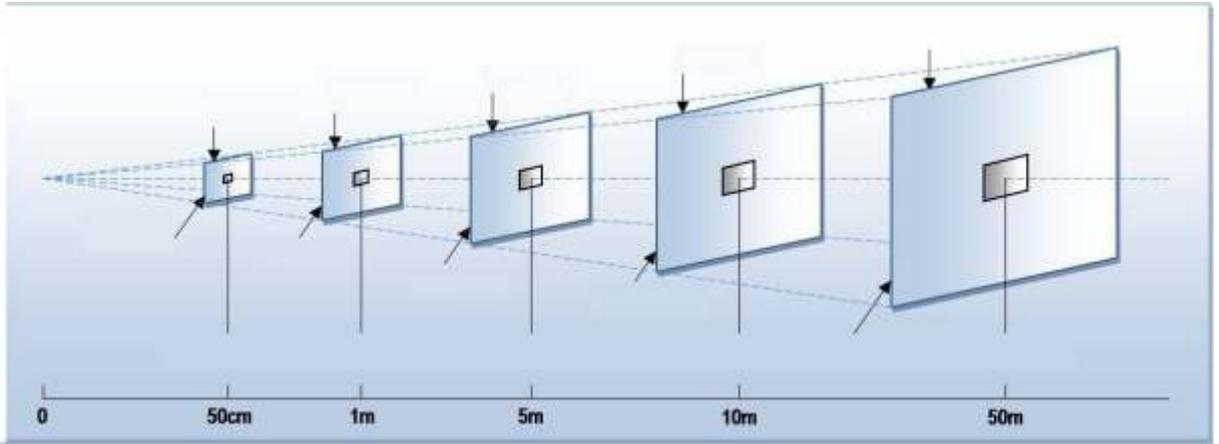


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Optics & Software

IRtec TImage Pro FOV



Lens	FOV	IFOV (mRAD)	Focusing range (mt)
11mm (Standard)	20.61°x15.53°	2.27	0.15 to infinity
7mm (Wide)	31.89°x24.19°	3.57	0.2 to infinity
30mm (Tele)	7.63°x5.72°	0.83	1 to infinity
Lens (HR model)	FOV	IFOV (mRAD)	
25mm (standard)	21.7°x16.4°	1.000	
42mm (tele lens 1)	13.04°x9.8°	0.595	
70mm (tele lens 2)	7.85°x5.89°	0.357	
13mm (wide angle lens)	40.53°x30.916°	1.923	



IRAnalyzer Reporting Windows Software

The software allows you to set spot, lines, polygon lines, rectangle, polygon, circle and delta T. It is possible to show Isotherm, profile and Hystogram. You can set different emissivity for each spot. Image processing like rotate, mirror, palette, zoom, image fusion, image filter. Image can be saved in different image format including radiometric.

You can generate fully custom reports with built-in connection to Word or Excel. Pro 4 XT is also able through USB2.0 to record thermal video.

