New!

V384

Professional Infrared Camera

Thermo COM
Thermography Solutions

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Infrared Camera

Top-end IR Thermographic Camera V384

Improved on the most advanced IR package available now, integrating multiple technologies never used in the industry, V384, is another ingenious solution for professional IR thermographers around the world. In a rugged, compact and durable magnalium casing, V384 offers a wide assortment of unexpected features that enable thermographers to work with unprecedented efficiency and productivity. Exceeding all the existing IR radiometric cameras, it sets another new standard of the first-class products for the whole industry.

Features and Benefits

- New-generation high-performance IR detector (384× 288 pixels, 35μm)
- Crisp thermal & visual imaging
- High thermal sensitivity and precise temperature measurement
- Intelligent onboard analysis
- Flexible high-resolution image presentation (640× 480 LCD screen, 640× 480 OLED viewfinder & VGA video output)
- Real-time radiometric recording and JPEG image storage
- Large-capacity SD memory card (2GB capacity) Bluetooth voice recording technology
- Compact architecture (magnalium casing) and intuitive touch screen control
- Intelligent automatic speech recognition system
- High-speed data transfer via USB2.0
- Robust post-processing software
- USB OTG interface* (for Ethernet, printer, mouse, etc)
- License free and rapid delivery

New-generation high-performance IR detector (384× 288 pixels, 35μm)
Utilizing the latest generation high-performance IR detector with over 110000 pixels (35μm× 35μm each), the camera offers extraordinary high resolution, high sensitivity and high accuracy presented by real-time, noise-free 16-bit thermal images.

Crisp thermal and visual imaging and more
With a 384× 288 IR camera and a color 1280× 1024 visual camera incorporated in the same unit, operators can simply locate the scene to be inspected, snap the shutter and then have both high-resolution thermal and visual images taken and saved together in a single file with one name. The integrated laser locator also helps operators accurately associate a hot spot shown in thermal images with the real physical target. Documenting infrared inspections gets much faster and more certain.

High thermal sensitivity and precise temperature measurement
Offering an unmatched high thermal sensitivity of 0.06°C and high temperature measurement accuracy of ±1°C or ±1%, the camera enables operators to pinpoint the smallest temperature difference quickly and clearly.

Intelligent onboard analysis
Auto indication of hot spot and the image center
One cursor automatically indicates the position and temperature of the hottest spot within the image. Another cursor always stays at the image center to show its temperature and provides a reference for inspection analysis.

Audible and visible alarms
Audio alarm will automatically trigger for a spot with temperature exceeding the value preset by operators. For power insufficiency, both audio and video alarm will activate.

Multiple measurement modes
Simultaneous eight-spot & eight-area analysis, line profile, isotherm analysis and ×1- ×8 continuous electronic zoom function expedite comprehensive probe for and pinpointing of potential problems.

Auto memory of customized setting & Easy resumption of default setting
Your preferred camera settings will remain after re-switching on. Pressing only one button will resume all the default settings of the camera.

Flexible high-resolution image presentation (640× 480 LCD screen, 640× 480 OLED viewfinder & VGA video output)
Two high-performance viewing options are available in the camera: a built-in color 640× 480 OLED viewfinder and a detachable color 640× 480 LCD (TFT) screen. Operators can easily choose either of them for the optimal use. Combined with two options above, high-resolution VGA mode enables crisp video output and operators' fast grasp of the inspection scene. VGA video output can be also transformed to PAL or NTSC mode.

Real-time radiometric recording and JPEG image storage
The large-capacity SD card lays a foundation for the real-time recording. The recording captures dynamic radiometric sequences of moving targets at different frame frequency. Sequences, as well as images that are stored in Windows-friendly JPEG file format, can be played back on the camera or transferred to a PC for further analysis.

Bluetooth voice recording technology
30-second or more digital clip of voice annotation can be stored with each image. A wireless Bluetooth headset eliminates all cable connections, increasing operator's safety.

Large-capacity SD memory card (2GB capacity)
2GB SD memory card stores both fully radiometric recording and fully radiometric JPEG images associated with temperature measurement and voice annotation. Both of them can be easily and rapidly downloaded from the camera to PC.

Compact architecture (magnalium casing) and intuitive touch screen control
Durable & lightweight magnalium casing allows for a highly rugged, compact and portable architecture of the camera. Intuitive touch screen and Window-style menus enable point-and-shoot operation of the camera without memorizing or training on redundant buttons.

Intelligent automatic speech recognition system
Control the camera by voice only. Free operators' hands and enable unprecedented working efficiency.

High-speed data transfer via USB2.0
Plug-and-play USB2.0 interface enables fast downloading of fully radiometric recording and images including temperature measurement and voice annotation.

USB OTG interface (for Ethernet, printer, mouse, etc)
With the advanced USB OTG technology never been used in IR cameras, the camera is able to work as a host machine that is directly connected with and controls diversified USB devices such as Ethernet module, without employing a computer.

Robust post-processing software
Offering extensive range of temperature measuring, image

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processing and report generating functions, the easy-to-operate Windows- based software highly automates the process of reporting and archiving infrared and visual images, videos and voice, improving professional thermographers' productivity and efficiency.

Technical Specification

Imaging Performance

THERMAL

Detector type:	Uncooled FPA microbolometer (384× 288 pixels, 35μm)
Spectral Range:	8-14μm
Thermal Sensitivity:	0.06°C at 30°C (frame averaging)
Field of View/ Focus:	22°× 16°/ 35mm
Focus:	Automatic
Electronic Zoom:	×1 to ×8 continuous zoom

VISUAL

Built- in Digital Video:	CMOS Sensor, 1280× 1024 pixels, 2^{15} colors

Image Presentation

External Display:	3.5″ high resolution color LCD (TFT), 640× 480 pixels
Viewfinder	0.6″ built-in high resolution color OLED, 640× 480 pixels
Video Output:	VGA/PAL/ NTSC

Measurement

Temperature Range:	-20 °C- +800°C (up to +2000°C optional)
Accuracy:	±1°C or ±1% of reading
Measurement Modes:	Spot / manual (up to 8 moveable), spot / automatic placement at max, area (up to 8 moveable) displaying either max, min, or average, isotherm, line profile, auto hot spot, auto alarm
Emissivity Correction:	Variable from 0.01 to 1.00 (in 0.01 increment)
Measurement Features:	Automatic correction based on distance, relative humidity, atmospheric transmission and external optics
Optics Transmission Correction:	Auto, based on signals from sensors

Image Storage

Type:	Removable 2GB SD card
File Format:	JPEG (an individual file consists of infrared image, visual image and voice annotation if any)
Voice Annotation:	Up to 30 seconds per file (more than 30 seconds optional) Bluetooth wireless headset

Optional Lenses

Field of View/ Focus:	7.7°× 5.8°/ 100mm 45.6°× 35°/ 16mm

Laser Locator

Classification Type:	Class 2 semiconductor laser

Power System

Battery Type:	Rechargeable Li-ion Camcorder battery, field- replaceable
Charging System:	In camera or in battery charger
Battery Operating Time:	Over 2.5 hours continuous operation
External Power Operation:	AC adapter 110/ 220 VAC, 50/ 60Hz

Environmental Specification

Operating Temperature:	-20°C~+60°C
Storage Temperature:	-20°C~+60°C
Humidity:	Operating and storing 10% to 95%, non- condensing
Encapsulation:	IP54 IEC 529 housing
Shock:	Operational: 25G, IEC 68-2-29
Vibration:	Operational: 2G, IEC 68-2-6

Interfaces

USB 2.0/ RS232:	Image (thermal and visual), measurement and voice transfer to PC
USB OTG	Connect and control multiple USB peripherals

Man-Machine Communication

Touch Screen:	Present and receive operator's commands given by touch
Auto Speech Recognition:	Automatically recognize and react to operators' voice commands

Physical Characteristics

Casing:	Magnalium
Weight:	1.1kg(including battery)
Size:	186mm×106mm× 83mm (standard model)
Tripod Mounting:	1/4″- 20

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