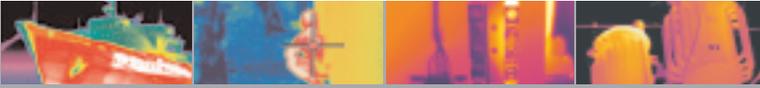




The Global Leader in Infrared Cameras

# ThermaCAM® P65

INFRARED CAMERA



The ThermaCAM P65 is the most highly refined infrared inspection system available today. Its powerful new features and conveniences enable the professional thermographer to work with unprecedented efficiency and productivity.



- > High Thermal Sensitivity
- > Precise Temperature Measurement
- > Outstanding Thermal Image Quality
- > JPEG Image Storage
- > Removable CompactFlash™ Memory
- > Interchangeable Optics
- > Built-in Laser LocatIR™
- > Includes ThermaCAM® QuickView™ Software

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

### Extraordinary Thermal Sensitivity and Imaging Quality

Thermal sensitivity of 0.08° C coupled with a 76,000 pixel display provides extremely accurate, high-resolution 16-bit thermal images in real time. Plus, the state-of-the-art 320 x 240 uncooled microbolometer detector means the P65 is ready to go in seconds. The built-in external 4-inch LCD screen displays digital images of corresponding thermal images captured by the IR system.

### Easy to Operate

Ergonomic, intuitive controls make operation seamless and efficient. A user-friendly joystick, familiar menus, and soft control buttons on both the camera body and detachable handle provide for easy one-handed operation. The built-in Laser LocatIR™ provides point-and-shoot accuracy.

### Rugged and Lightweight

The P65 was designed for use in harsh environments. It has an IP54 industrial shock rating and complete environmental encapsulation. Plus, at under 4.4 lbs., it is the lightest full-featured infrared camera available.

### Flexible Viewing Options

The built-in color viewfinder is ideal for outdoor applications, while the detachable 4-inch color LCD on the camera's handle adjusts to any viewing angle, and may be used to operate the camera via redundant controls - for optimal use in hard-to-reach areas - indoors and out.

### Flexible Image Storage

Windows-friendly JPEG images can be transferred from RAM to a removable CompactFlash® memory card, for infinite memory capacity. The camera may be set up to automatically capture images at preset intervals.

### Burst and AVI Recording

Powerful burst recording captures moving targets for sequences up to 20 minutes long. Sequences may be played back on the camera or transferred to a PC for further analysis. Nonradiometric moving images may be optionally recorded in AVI file format for convenient report playback using industry-standard players.

### Special Features Boost Your Efficiency

A brilliant LED target light automatically turns on when required by visual lighting conditions. Powerful auto-focus and auto-hot-spot features save time and effort. The P65 can automatically indicate the temperature and position of the hottest spot in the image and instantly calculate the difference between different measurement points. Sound and color alarms warn when targets exceed temperature maximums set by the user.

### Voice Recording with Bluetooth® Technology...and More.

The P65 can record up to 30 seconds of audio with each image. A cordless Bluetooth earpiece eliminates all cable connections, increasing operator safety. In addition, text comments for each image can be entered manually or preloaded from a PC with optional ThermaCAM® Reporter software.

### Store User Profiles

Personal camera settings may be stored on the P65, for several users, a time-saving feature.

### Wide Range of Accessories

Optional optics include: microscopic, wide-angle and telescopic to address diverse application requirements. Infrared heads-up displays (IR HUD) are available, to augment situational awareness. Power options include lightweight, rechargeable, long-life Li-Ion batteries, and the ability to operate the P65 from external power sources.

### Optional Software Does the Work for You!

ThermaCAM Reporter reporting and analysis software reduces the task of creating great-looking reports to simple drag-and-drop. ThermaCAM Database software enables you to trend, archive, and organize inspection data and reports quickly and easily. ThermaCAM Image Builder knits multiple IR images together to create a single radiometric composite.

# ThermaCAM® P65 Technical Specifications

Imaging Performance	
<b>Thermal</b>	
Field of view/min focus distance	24° x 18° / 0.3 m
Spatial resolution (IFOV)	1.3 mrad
Thermal sensitivity @ 50/60Hz	0.08° C at 30° C
Electronic zoom function	2,4,8, interpolating
Focus	Automatic or manual
Digital image enhancement	Normal and enhanced
Detector type	Focal plane array (FPA) uncooled microbolometer; 320 x 240 pixels
Spectral range	7.5 to 13 µm
<b>Visual</b>	
Built-in digital video	640 x 480 pixels, full color
Image Presentation	
Viewfinder	Built-in high-resolution color LCD (TFT)
External display	Built-in high-resolution color LCD (TFT)
Video output	4" LCD with integrated remote control RS 170 EIA/NTSC or CCIR/PAL
Measurement	
Temperature ranges	-40° C to +120° C (-40° F to +248° F), Range 1 0° C to +500° C (+32° F to 932° F), Range 2 Up to +1500° C (+2732° F), optional Up to +2000° C (+3632° F), optional
Accuracy (% of reading)	± 2 °C or ± 2%
Measurement modes	Up to 10 movable spots. Automatic temperature difference (Δ) and placement and reading of maximum and minimum temperatures. Up to 5 movable circle areas or boxes. Up to 2 isotherms. Line profile.
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 CompactFlash® (256 MB) memory card; built-in Flash memory (100 images); built-in RAM memory for burst and AVI 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	Input via supplied Bluetooth® wireless headset up to 30 seconds of digital voice clip per image stored with image
Text annotation of images	Predefined by user and stored with image
System Status Indicator	
LCD display	Shows status of battery and storage media. Indication of power, communication and storage modes.
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	2 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	2.0 kg (4.4 lbs) w/battery and top handle (includes remote control, LCD, video camera and laser) 1.4 kg (3.1lbs) excluding battery and handle
Size	100mm x 120mm x 220 mm ( 3.9" x 4.7" x 8.7") camera only
Tripod mounting	1/4" - 20

Camera includes:	
IR camera with visual camera, Laser LocatIR, remote control w/ LCD display	
High-output multi-LED target light	
Bluetooth® wireless headset	
Carrying case, lens cap, shoulder strap, hand strap	
Manual (multi-lingual)	
Batteries (2)	
Power supply	
Battery charger	
FireWire® (IEEE 1394) cable	
Video cable with RCA plug	
USB cable	
S-video cable	
256 MB CompactFlash® card	
ThermaCAM® QuickView™ software	
Lenses (optional)	
Field of view/minimum focus distance	
3X Telescope (7° x 53°/4m)	
2X Telescope (12° x 9°/1.2m)	
0.5X Wide angle (45° x 34°/0.1m)	
0.3X Wide angle (80° x 60°/0.1m)	
200 µm Close-up (64mm x 48mm/150mm)	
100 µm Close-up (34mm x 25mm/80mm)	
50 µm Close-up (15mm x 11mm/19mm)	
Wearable Optics/Heads-up Display	
Interfaces	
USB / RS232	Image (thermal and visual), measurement data, voice and text transfer to PC
IrDA	Two-way data transfer from laptop, PDA
Remote control	Removable handle with redundant controls and LCD
Firewire output (IEEE 1394)	Real-time (60 Hz) digital transfer of radiometric thermal images or digital video (DV) out

Save \$12,000 with the  
**P65 Value Package!**  
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