

ThermalGuard\IR™ Series

Infrared Thermal Imaging Camera And Day/Night Camera Systems



Applications:

- Military
- Law Enforcement
- Security and Surveillance
- Wildland and Structure Fire
- Portable
- Mobile
- Fixed mount
- Marine

Features:

- User Friendly
- Rugged And Compact
- Day Or Night Full Image Resolution
- Selectable Polarity, White Or Black Hot
- SunTech\IR^P Sun Protection Technology
- Selectable Zoom
- 640 X 480 Image Display
- Optional Spot Temperature Display
- Detection To Two Miles And Beyond
- Full Motion Real Time Video
- External Power And Video Jacks

Options:

- Mobile Mount
- Marine Version
- Radar Intergration
- Gyro-Stabilization
- Software
 - Tracking
 - Thermotect/Thermofind Detection™
 - Radar Slew-to-que



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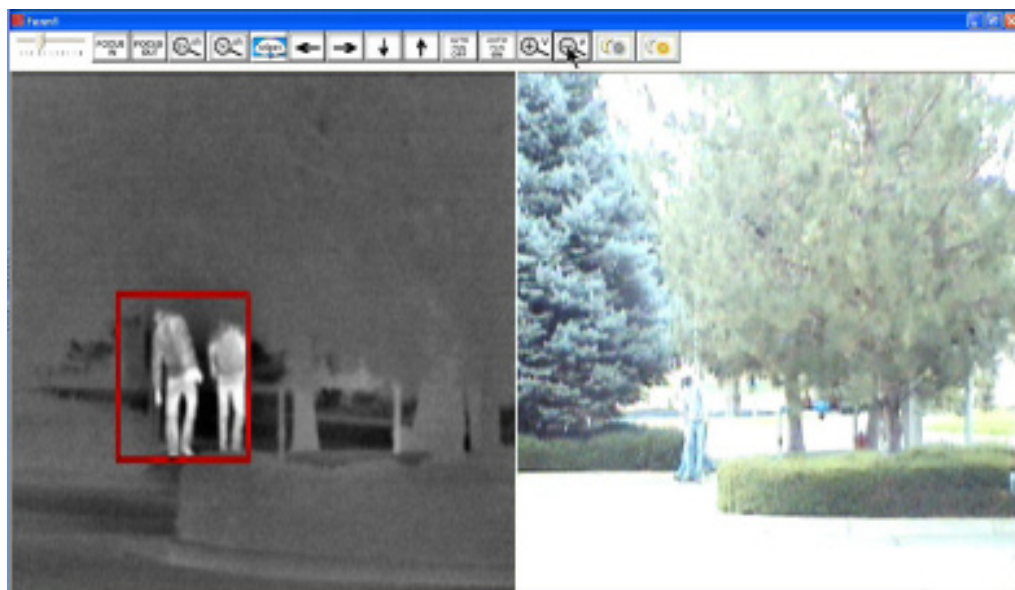
Each camera enclosure is fully sealed and pressurized to assure moisture free operation and long lifetime. The Detector is totally protected from sun-light damage through the use of Infrared Inc. SunTech® technology.



The optional controller was specifically designed to manage a network of imaging nodes. The powerful digital controller is capable of managing all camera functions and up to 9 nodes, yet is very cost effective and easy to operate.

Features:

- Compact and Rugged Design
- Quick-change Camera Modules (blocks) with True Plug 'n Play
- Controlled by Network, Computer or Dedicated Controller
- Universal Operating Protocol, Unaffected by Camera Changes
- Suntech® - Technology
- Mil-STD-810F, IP66, Sealed and Pressurized Camera Housings
- 10-30 VDC Operation
- Choices of Cameras
- Continuous 360° Pan Rotation
- Mobile and Invertable
- No exposed wiring
- Full Two-Way Communication
- Programmable Stow Position

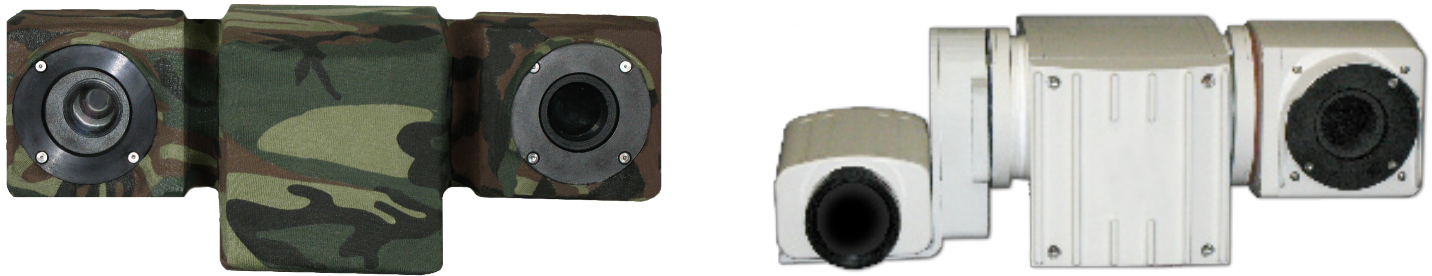


*Model #'s & specifications subject to change

* Subject to U.S. Export Regulations



ThermalGuard\IR™ Series Specifications



Thermal Camera Specifications

Thermal Imaging Performance

Start-up Time	~4 seconds
Contrast/Brightness	Advanced Image Processing
Polarity	Selectable White or Black Hot
Zoom	2X, 4X, 6X, 8X, 10X Selectable

Focal Plane Array

Detector	Amorphous Silicon Microbolometer 320 x 240 pixel array
Output Resolution	640 x 480 pixels NTSC, 768 x 574 pixels PAL
Spectral Response	7-14 microns (filter bandwidth)
Thermal Sensitivity	< 50 mK
Refresh Rate	Real-time 30Hz or 9 Hz

Optics

FOV (H x V)	3° x 2.25°	6° x 4.5°	12° x 9°	25° x 19°	50° x 37.5°
Range to detect a person (Up to)	9843' (3000m)	6130' (1860m)	3330' (1015m)	1465' (445m)	775' (235m)
Focus Method	Manual - Temperature stabilized				
Iris	Automatic Electronic				

Video

Analog Output Frame Rate	NTSC: 30hz , PAL: 25hz
Optional Absolute Color	3 selectable color points can be mapped (factory preset) to selectable absolute temperatures

Power

Power Source	12 VDC
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Environmental Characteristics

Operating Temperature	-4° F to 185°F (-20° C to 85° C)
Storage Temperature	-40° F to 221°F (-40° C to 105° C)

Mechanical Positioner Specifications

Voltage	12 VDC with reverse polarity
Pan Range	360° Continuous
Pan Speed	0.25°-100°/sec
Tilt Range	-90° to +90° Non-continuous
Motor Type/Drive	Steppers with belt drive
Connector	Mil Spec, bottom pigtail or side mount (height increase) connector
Weight	Less than 22lbs (10kg) with dual cameras
Microprocessor Control	32 presets, 2 tours, 2 memory tours
Control Formats	Serial RS422 485/autobank
Limits	Fixed tilt hard limit, adjustable soft limits
Repeatability	0.25°
Materials	Aluminum housing, stainless steel hardware
Marine Resistant	Paint, bearings, gasket
Enclosures	IP66, sealed, pressurized camera housings
Operating Temp. Range	-32° to 55°C (-25.6° to 131°F)
Position Feedback	.01 degree

Visual Camera Specifications

Image Device	1/4 type Super HAD
Effective Picture Elements	Approximately 680,000 pixels
Lens	26X zoom, f=3.5 mm (wide) to 91.0 mm (tele), F1.6 to F3.8
Digital Zoom	12X (312X with optical zoom)
Min. Illumination	2.0 lx (typical) (F1.6, 50 IRE)
S/N Ratio	+50 dB
Electronic Shutter	1/1 to 1/10,000 s, 22 steps
White Balance	Auto, ATW, Indoor, Outdoor, One-push, Manual
Gain	Auto/Manual (-3 to 28 dB, 2 dB steps)
AE Control	Auto, Manual, Priority mode, Bright, EV compensation, Back-light compensation
Privacy Zone Masking	On/Off (24 positions)
Flicker Cancel	Auto
Focusing System	Auto (Sensitivity: normal, low), One-push AF, Manual, Infinity, Interval AF, Zoom Trigger AF
Camera Operation Switch	Zoom tele, Zoom wide