

Thermal Viper 3620



- Proven Amorphous Silicon Microbolometer Detector Technology (30µm 160 x 120 pixel array)
- Best-In-Class Power Consumption (<1.2W)
- Best-In-Class Image Quality (Advanced Histogram-Based Image Processing 640 x 480 video output)
- 30Hz Frame Rate State-of-the-Art Sensitivity & Dynamic Range
- Reliable Solid State Construction
- Ambient Temperature Operation
- Rugged Weather and Corrosion Protective Enclosure
- Mil-Spec Connectors
- Shielded Weather Protected Cable
- Pan/Tilt Control Box (optional)
- Polarity Switch for White Hot/Black Hot Operation (optional)
- Stainless Steel Window Protection Mesh (optional)
- Small and Light Weight
- Simple User Friendly Point-and-View Operation
- Stealth, Quiet Operation



Weather Proof Pan/Tilt (optional)

The **Thermal Viper** thermal imaging system is designed for rough and demanding operation. It delivers high performance Digital Signal Processing imagery in a lightweight rugged weather and corrosion protective enclosure. The Thermal Viper features completely quiet point-and-view operation. Its specially coated enclosure offers maximum protection against weather and corrosive environments such as marine and corrosive gasses associated with petrochemical facilities.

Basic model is supplied with standard monochrome (gray scale) display in white hot mode where higher temperature objects appear whiter on the display. Contrast and brightness is automatic with advanced image processing. The Thermal Viper can also be factory set to display the following:

- Temperature Bar
- Temperature Measurement Display (with saturation temperature of 1100°F (600°C) +/-10% w/ automatic electronic iris)
- Crosshair Display (center point for temperature display)
- Scene Colorization (3 factory set color points can be mapped to absolute temperatures; temperatures below the first absolute temperature threshold and above the saturation point are shown as shades of gray)
- Digital Zoom (up to 5X set at factory)

External user control can be provided with an optional Camera Control Box. External controls include Polarity (white/black hot modes) and Digital Zoom (1X to 2-5X).

APPLICATIONS

Military

The Thermal Viper's rugged, reliable, simple and quiet operation provides reliable thermal imagery for demanding military operations.

Public Safety

Protect officers while searching and pursuing suspects. Detect prowlers.

Search and Rescue

Spot lost and stranded boaters and accident victims. Navigate dangerous waterways. Respond to natural and man-made disasters.

Marine

Off Shore Oil Spills, Search & Rescue, Navigation

Security

Provide day/night visual surveillance. Protect critical infrastructure such as ports and waterways, nuclear power sites, and petrochemical facilities. Monitor perimeters to prevent intrusion.

Wild land and Fire Fighting

Provide the most efficient fire attack for wild land direct firefighting. Detect hot spots and see escape routes through darkness and thick smoke. Scan large areas for heat sources and flare-ups.

Industrial

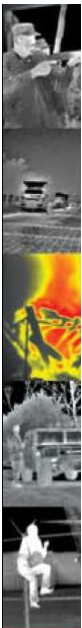
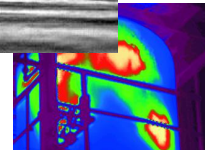
Perform thermal analysis to detect heat loss points in structures. Detect wet areas signifying possible water leaks in roofs. Perform preventive maintenance to identify possible component failure in electrical components and machinery.

Standard Equipment

- Thermal Camera with Enhanced Digital Video Processing
- Weather Sealed and Camera Enclosure with Corrosion Protective Coating
- Fully EMI Shielded Video/Power Cable (coiled cable; extends to 6')
- Operator manual

Optional Equipment

- High Definition TFT 6.4 inch Flat Panel Display
- Stainless Steel Mesh for Protection Against Rocks and Other Debris
- Weatherproof Variable speed Pan/Tilt Unit and P/T Controller
- Roof Bar Mount Kit
- Camera Control Box



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THERMAL-EYE

SPECIFICATIONS

Physical

- Dimensions: 8.375" L x 4.0" W x 4.0" H (excluding sun shroud)
- Weight: 3.4 lbs
- Mounting Provisions: Standard Camera Mount and Tripod Mount
- Enclosure: Weather Sealed With Baked and Chemically Cured Coating That Provides Maximum Resistance To Severe Corrosive Environments Such as Acids, Alkalis and Salt Spray. Resistant To Marring, Chipping, Weathering and Solar Exposure
- Hard Carbon Coated IR Window Resistant to Corrosive Alkalitic, Acidic and Salty Environments
- Stainless Steel Mesh for Lens Protection Against Debris

Environmental

- Operating Temperature: -20°C to 85°C
- Storage Temperature: -40°C to 105°C
- Operating Humidity: 0-95 Percent Non-Condensing
- Environmental Enclosure (NEMA 4X)

Electrical

- Input Power: 6 – 12 VDC
- Power Consumption: <1.2 watts (typical)
- Reverse Polarity Protection

Interfaces

- Mil-Spec Connectors for Video and Power to Camera and Video Display
- Electronic Power/Video/Pan/Tilt Control Box (when optional Pan/Tilt is supplied)
- Optional Camera Control Box (provides polarity and digital zoom control)

Performance

- Detector Type: Uncooled Amorphous Silicon Microbolometer (160 x 120 Pixels)
- Pitch: 30.0 µm
- Spectral Response: 7 to 14 Microns
- Start-up Time: 2.4 Sec +/- 10% @25° C
- Thermal Sensitivity: <50mK
- Refresh Rate: Real-time 30Hz
- Contrast/Brightness: Automatic
- Operation Modes: White Hot/Black Hot (Optional Tri-Color Scene Colorization to Factory Set Absolute Temperatures)
- Optional Temperature Bar
- Optional Crosshair & Temperature Measurement Display (with saturation temperature of 1100°F (600°C) +/-10% w/ automatic electronic iris)
- Optional Digital Zoom (1X to 2-5X)
- Saturation Temperature: 1100° F/600° C
- Output Resolution: 640 x 480 pixels for higher clarity thermal images

Lens Focal Length	FOV (H x V)	Focus Distance	Person Detection Range
16mm f/1.0	~ 17 x 12 deg	5 ft to infinity	~1000 ft
25mm f/1.0	~ 11 x 8 deg	5 ft to infinity	~1500 ft

Subject to change without notice

Please call for additional information

Pan/Tilt

Mechanical:

Electrical:

Environment:

Pan Rotation:

Tilt Rotation:

Dimensions:

Weight:

Control

Pan/tilt Control:

Scan:

Electrical

Input:

Output:

Dimensions:

Weight:

Display Type:

Resolution:

Screen Size:

Dot Pitch:

Dimensions:

Power Source:

PAN/TILT/CONTROL

Cast and plate aluminum with all internal parts corrosion protected. Tilt shaft constructed of Type 304 stainless steel 12VDC 0.7 Amp (from control box)

Meets weather and dust-proof requirements for installation in salt-air environments.

Meets NEMA 3R rating

435° +/- 217.5°

1° 23° +/- 1° per sec (variable speed)

+/- 90° in vertical plane

1° - 3° +/- .5° per sec (variable speed)

9.12"(H) x 9.37"(W) x 5.24"(D)

23.2 cm (H) x 23.8cm (W) x 13.3 cm (D)

13.1 lbs (5.94 kg)

Desktop or rack mount w/ remote joystick control

Variable speed

12VDC

12 VDC

8.25"(W) x 12"(D) x 3.5"(H)

20.9 cm (W) x 30.48 cm (D) x 8.9 cm (H)

5.5 lbs (2.49 kg)

DISPLAY

TFT Flat panel LCD

960 (W) x 234 (H)

6.4" diag

0.136 (W) x 0.416 (H)

5.31"(H) x 6.875"(W) x 1.1"(D)

12 - 24 VDC

ITEM	PART NUMBER
Thermal Viper Camera	ATE/TV3620-17
Flat Panel LCE (6.4" Diag)	ATE/LCD-64
Video/Power Cable (6' coil)	ATE/TVCBL-6
OPTIONAL EQUIPMENT	
P/T Control Box & Remote Joy Stick	ATE/TVCTLBX
Pan/Tilt	ATE/QSPT
Camera/PT Cable (25 ft)	ATE/TVPTCBL-25
Camera Control Box	ATE/TVCTLBX

