

# SR-EO/IR Mk II IMAGING PAYLOAD



## Aeryon SR-EO/IR Mk II Imaging Payload

Stay on target with enhanced, daylight and thermal aerial imagery

The **Aeryon SR-EO/IR Mk II** is the next-generation multi-sensor imaging payload for the Aeryon SkyRanger sUAS.

Delivering high definition daylight and thermal imagery in a weather-resistant, 3-axis stabilized gimbal, the **EO/IR Mk II** provides tactical teams, police, and first responders anytime/anywhere, immediate aerial intelligence. Optional onboard image processing capabilities provide the automatic identification and tracking of moving targets, and can maintain a fixed hold on stationary objects while the aircraft is repositioned.

### Advantages of the EO/IR Mk II imaging payload:

- Passive and active mechanical stabilization, as well as digital image stabilization
- Enhanced thermal (IR) imagery in a range of color palettes – white-hot, black-hot, rainbow and ironbow
- HD 1080p30 video streamed securely to the pilot, and to remote viewers anywhere in the world through AeryonLive
- Rugged, environmentally tolerant design tested to IP-53 standards, enabling all-weather operation
- Choice of IR lenses - 19mm focal length (tactical applications) and 13mm (thermal mapping or SAR applications)
- Advanced radiometric temperature measurement, accurate to +/- 9° F (5° C)<sup>1</sup>

The optional **Vector™ embedded computing** platform employs advanced video processing algorithms to maximize operator efficiency and optimize target identification and acquisition. The tracking algorithm adapts in real-time to changes in target shape and maintains a hold on the target even when its position changes or another object obstructs the view. Initial applications deployed on the Vector-enabled EO/IR Mk II include:

- **Target Tracker:** Automatically holds a stationary or moving target centrally in the camera's field of view (FOV) by repositioning the gimbal and aircraft
- **Moving Target Indicator (MTI):** Automatically annotates up to 10 moving objects within the camera's FOV
- **Digital Image Stabilization (DIS):** onboard video stabilization

Designed to capture high-resolution, precise images and video, the EO/IR Mk II payload is ideal for day & night-time operations in the following scenarios:

Crime Prevention	ISR
Emergency Response	Search and Rescue
Forensics	Tactical Response

For information about Aeryon sUAS solutions, contact your Aeryon Sales Representatives:

Call +1-519-489-6726 ext: 320 or email [sales@aeryon.com](mailto:sales@aeryon.com)

[www.aeryon.com](http://www.aeryon.com) | [@aeryonlabs](https://twitter.com/aeryonlabs)



## TECHNICAL SPECIFICATIONS<sup>2</sup>:

### CAMERA FEATURES (DAYLIGHT/EO):

#### Image capture:

- Stills: 13 megapixels
- File format: JPEG

#### Video:

- Resolution: 1080p H.264 HD recorded
- HD streamed to Mission Control Station (MCS)
- STANAG 4609 metadata

#### Field of view: 58°

### CAMERA FEATURES (THERMAL/IR):

#### Image capture:

- Stills: 640x512
- File format: JPEG

#### Video:

- Resolution: 640x512, 8.33 FPS H.264 Recorded
- 640x512 streamed to Mission Control Station (MCS)
- STANAG 4609 metadata

#### Field of view:

- 45° (13mm)
- 32° (19mm)

#### Color palettes:

- White-hot, Black-hot, Rainbow, Ironbow

#### Digital Enhancements:

- ACE<sup>3</sup>, DDE<sup>4</sup>, Isotherms, IBHEQ<sup>5</sup>

#### Removable memory:

- SD card onboard aircraft

#### Weight:

- 20oz (575 g)

#### Operating temperature:

- -22 to 122°F (-30 to 50°C)

### GIMBAL FEATURES:

- 3-axis stabilization
- **Range of motion:**  
Roll: +/- 20 degrees  
Pitch: +/- 60 degrees  
Yaw: +/- 20 degrees

### MINIMUM SYSTEM REQUIREMENTS (VECTOR):

- Aeryon Mission Control Station (MCS) software version 3.6.0+
- Vector-enabled Aeryon SR-EO/IR Mk II Imaging Payload

<sup>1</sup> - Enabled in a future software release

<sup>2</sup> - Technical specifications and design subject to change without notice.

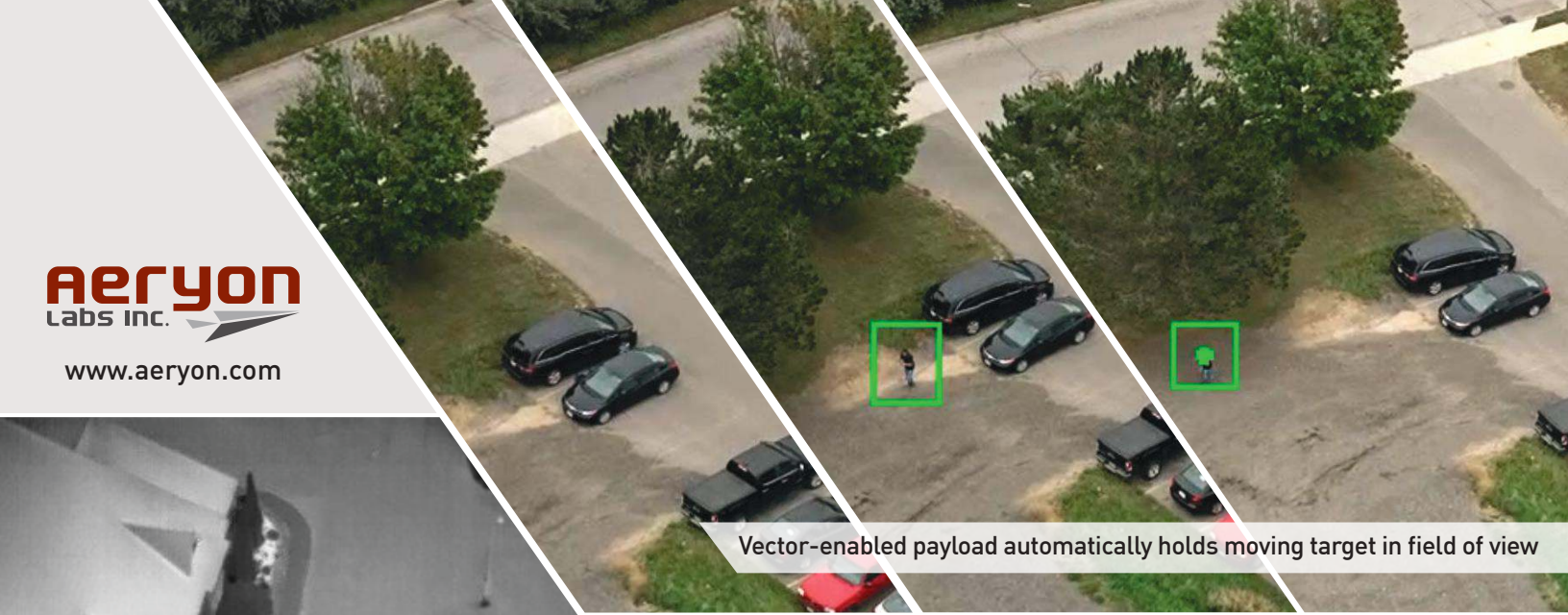
<sup>3</sup> - Active Contrast Enhancement

<sup>4</sup> - Digital Detail Enhancement

<sup>5</sup> - Information Based Histogram Equalization

**Aeryon**  
Labs Inc.

[www.aeryon.com](http://www.aeryon.com)



Vector-enabled payload automatically holds moving target in field of view



Ensure evidence provides detail & accuracy



Annotate up to 10 moving objects



Ironbow IR color palette



Real-time situational awareness



Maintain hold on target even when obstructed