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 critical infrastructure inspectors 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 1080p video streamed securely to the pilot, and to remote personnel 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 +/- 9º F (5º C)[1]

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:

Buildings, roofs & support structures	Thermal mapping
Pipelines	Flarestacks

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

Call +1-519-489-6726 ext: 320 or email sales@aeryon.com
www.aeryon.com | @aeryonlabs

TECHNICAL **SPECIFICATIONS**[2]:

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: 58º

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:
- 45º (13mm)
- 32º (19mm)

Color palettes:
- White-hot, Black-hot, Rainbow, Ironbow

Digital Enhancements:
- ACE[3], DDE[4], Isotherms, IBHEQ[5]

Removable memory:
- SD card onboard aircraft

Weight:
- 20oz (575 g)

Operating temperature:
- -22 to 122ºF (-30 to 50ºC)

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

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1 - Enabled in a future software release
2- Technical specifications and design subject to change without notice.
3 - Active Contrast Enhancement
4 - Digital Detail Enhancement
5 - Information Based Histogram Equalization

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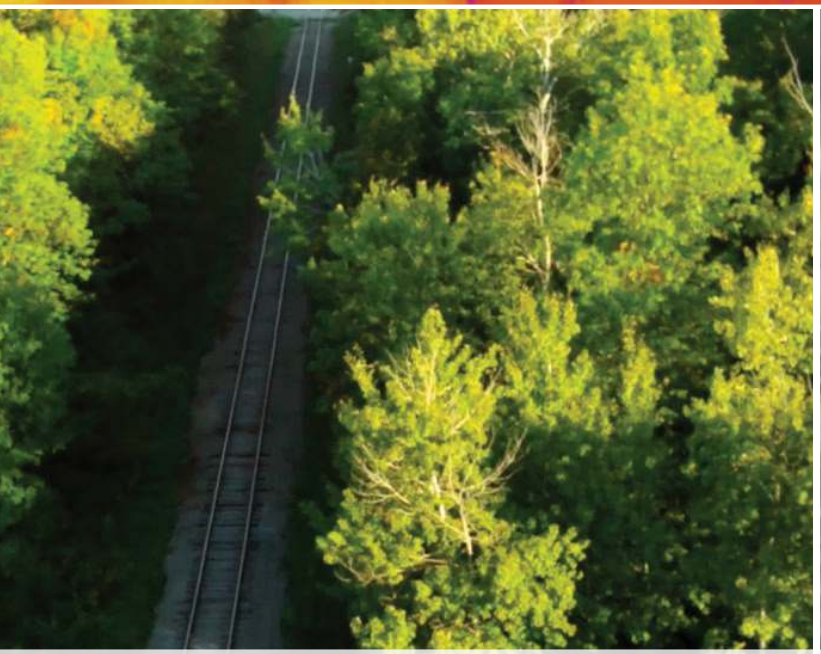
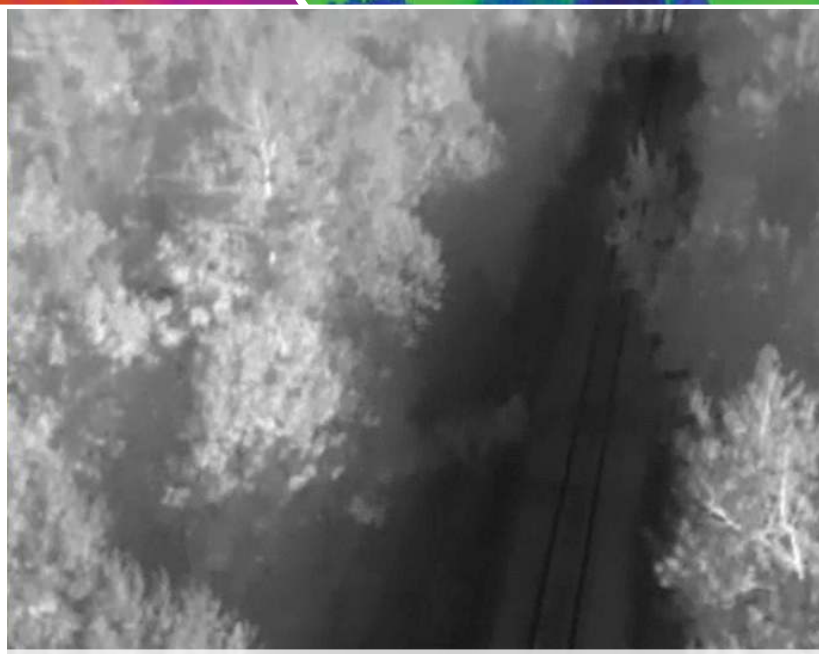
Thermal mapping capabilities

Close inspection of critical infrastructure

IR color palettes

Enhance maintenance & reliability programs





Simultaneous daylight and thermal image capture