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 +/- 9º F [5º C]

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:

<table>
<thead>
<tr>
<th>Crime Prevention</th>
<th>ISR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Response</td>
<td>Search and Rescue</td>
</tr>
<tr>
<td>Forensics</td>
<td>Tactical Response</td>
</tr>
</tbody>
</table>

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

Copyright © 2016 Aeryon Labs Inc. - All rights reserved. Aeryon, Aeryon Labs, Aeryon SkyRanger and Vector are trademarks of Aeryon Labs, Inc.

---

**TECHNICAL SPECIFICATIONS**²:

**CAMERA FEATURES (DAYLIGHT/E0):**

- **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:**
  - ACE³, DDE
  - Isotherms, IBHEQ
- **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

---

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
Ironbow IR color palette

Real-time situational awareness

Ensure evidence provides detail & accuracy

Annotate up to 10 moving objects

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

Maintain hold on target even when obstructed

www.aeryon.com