

Gimballed Aerial OGI

Data Sheet



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Cutting-Edge Optical Gas Imaging Camera

The Sierra-Olympic Ventus OGI (Optical Gas Imaging) camera core brings together the latest in detector, cooler and lens design for detecting and visualizing hydrocarbon gas leaks. The reporting software offered by Aerial OGI can generate and send geo-referenced reports in flight providing a streamlined workflow. The powerful low size, weight, and power (SWaP) sensor wrapped into the Aerial OGI platform is built for integration into crewed and uncrewed aerial platforms for surveying large areas of infrastructure in a fast and effective manner.

The Ventus OGI utilizes a state-of-the-art 640 x 512, 15µm pixel pitch HOT MWIR detector array with a special narrow bandpass cold filter in a miniature, long life, closed cycle, stirling cooler with an f/1.5 cold shield and an optimized purpose built lens to provide unmatched thermal sensitivity. The Aerial OGI is a powerful tool for operators looking for the best OGI imagery on the market.

Applications

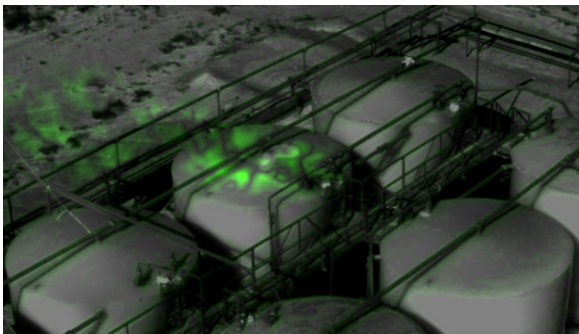
- » Visualizing hydrocarbon gasses
- » Quickly survey large areas
- » Image from a safe distance
- » Meet requirements, reduce fines
- » Around-the-clock surveillance

What's Included?

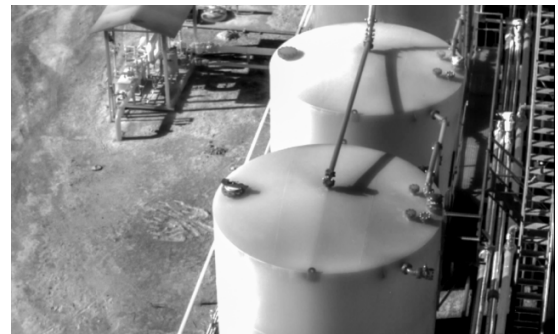
- » Fully integrated gimbaled OGI sensor
- » Tablet for video streaming and real-time data analysis
- » Waterproof Pelican transport case with custom foam insert
- » Aerial OGI Reporting Tool Basic

Key Features

- » Long-life High Operating Temperature (HOT) Medium Wave Infrared (MWIR) detector
- » 640 x 512 resolution / 15 um pixel pitch
- » Low-SWaP integration (541 grams)
- » 25mm, F1.5 optic; 4x digital zoom
- » Fully-functional MWIR thermal camera
- » Gas Enhancement Mode (GEM) or grey scale
- » Instant reporting



Airborne gas leak detection



Easily Integrate With Vision Aerial Aircraft

The Gimballed Aerial OGI sensor is compatible with all Vision Aerial aircraft platforms. A pre-installed male Payload Connection System (PCS) attachment allows for quick installation on either system and use of the standardized, magnetic electrical connector ensures a quick and reliable connection.

System version compability requirements

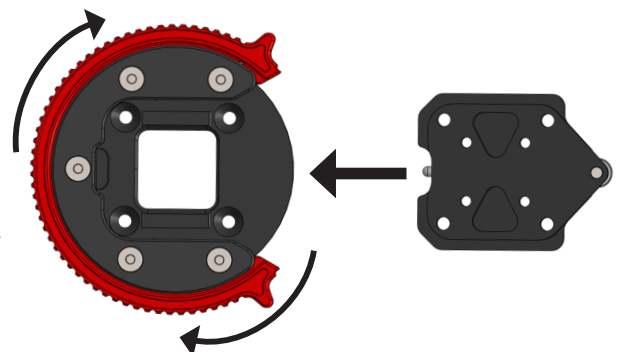
System	Minimum Version
Vector	Mk 2.3.3*
SwitchBlade-Elite	Mk 2.3.5*

* The Vector Mk 2.3.3 and SwitchBlade-Elite Mk 2.3.5 standards will be available for purchase or upgrade in January 2024



For Custom Integrations

Have an existing platform and simply need the gimballed payload? A female PCS lock ring and primary harness adapter can be provided for interoperability with other aerial or ground systems.



Interaction of the PCS insert with the PCS lock ring

Data Streaming and Reporting

Optimize gathering mission results without compromising flight safety. The sensor's live video stream is received on a dedicated tablet to allow for real-time data analysis while keeping flight information clear and visible.

Expedite your reporting and minimize revenue loss. At the push of a button, the onboard Aerial OGI reporting software generates a report and can send data to a connected LDAR software.

Payload Specifications

Integration and Environment	
Mass (approx)	1006 g (2.22 lbs)
External Dimensions (approx)	222 x 121 x 200 (mm)
Sensor	Ventus OGI
Gimbal	Gremsy Pixy-U
Operating Temperature	-35 °C to +65 °C
Certification	0000a Certified (<=60 g/hr)
Power Consumption	12 VDC / 6W typ 12 W peak

System	
Analog Video Output	NTSC/PAL
Digital Video Output	Uncorrected 14-bit CameraLink
Detectable Gases	Acetic Acid, Ammonia, Benzene, Butadiene, Butane, Ethane, Ethylbenzene, Ethylene, Heptane, Hexane, Isoprene, Methyl Ethyl Ketone (MEK), Methane, Methanol, MIBK, Octane, 1-Pentane, Propane, Propylene, Sulphur Dioxide, Toluene, Vinyl Chloride, Xylene
Camera Control	Serial / Ethernet
Export Classification	EAR 6A003.b.4.a

Detector	
Detector Type	High Operating Temperature (HOT) Medium Wave Infrared (MWIR)
Array Format	640 x 512
Pixel Pitch	15 µm
Spectral Response	3.2 - 3.42 µm
Frame Rate	30 Hz
Regulation	Non ITAR
NETD	<35 mK

Lens	
EFL	25 mm
F#	1.5°
FOV	21.7°
Digital Zoom	2x, 4x and 8x

Gimbal	
System Type	3-Axis camera stabilizer
Input Voltage	14-52 VDC
Working Current	Static Current: 400mA (@12V) Dynamic Current: 800mA (@12V) Stall Current: 4.0A (@12V)
Angular Vibration Range	± 0.02°