

VAYU HD

UNPARALLELED 1920 X 1200 LWIR IMAGERY



SIERRA-OLYMPIC
Technologies Inc.

The Vayu HD is the industry gold standard for critical applications when superior imaging performance at the lowest weight and the highest resolution available are essential.

- + *World's first Full HD, 1920 x 1200 x 12µm Uncooled VOX Microbolometer Array*
- + *25 and 50 mm lens options*
- + *Standard Video Outputs: HDMI, IP VIDEO (H.264/265), 16-BIT USB3.0*
- + *Low-SWaP integration (450 / 520 grams)*
- + *Dual use classification*



Vayu HD Details: With true 1920x1200 (Full HD) resolution from an uncooled VOx microbolometer array, the Vayu HD is the highest-resolution LWIR camera on the market. At just 450 and 520 grams (25 and 50mm lens versions) and compact enough to fit in the palm of your hand, the Vayu HD sets a new standard for superior image quality and resolution in a SWaP optimized package.

The camera features a USB3.0 raw video output for more universal compatibility, an open chassis for the lightest possible integration weight and an F/1.2 lens with a high-performance AR coating for calibrated optical performance. An onboard image processor provides H.264/H.265 encoded RTP output, advanced image processing functions, and the ability to implement optional features such as object tracking and detection with telemetry, NMEA metadata packaging and more.



APPLICATIONS

- + **Low-SWaP aerial integration**
- + **Navigation**
- + **Wide Area Surveillance**
- + **Driver Vision**
- + **Aerial Mapping**
- + **Unmanned Vehicles**
- + **Film production**

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FEATURE SPECIFICATIONS:

DETECTOR

Detector Type	Uncooled VOx Microbolometer
Bit Depth	16-bit
Array Format	1920 x 1200
Pixel Pitch	12µm
Spectral Response	LWIR 8-14µm
Frame Rate	60Hz
1-point NUC	Scene or mechanical shutter

LENS

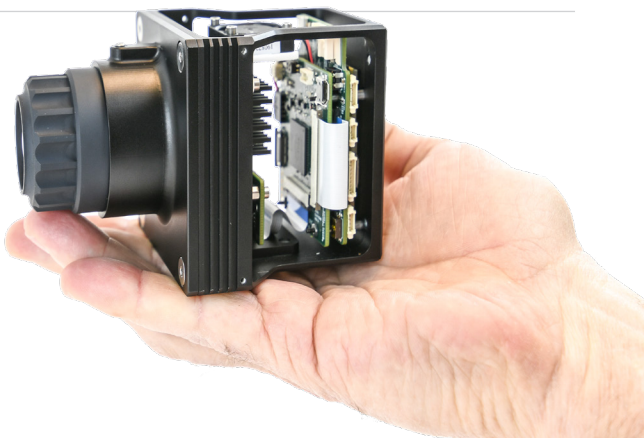
EFL	25mm / 50mm lens models
F#	1.2
Focus	Manual
FOV	25mm: 49.5° x 32.1° 50mm: 25.9° x 16.4°
Environmental	Athermalized, High-performance AR Coating

SYSTEM

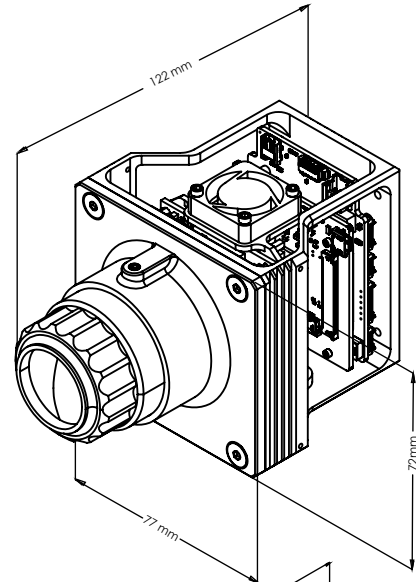
Video formats	HDMI (1080p), IP, USB3-UVC (raw)
IP Video	H.264/H.265 MPEG
Image Enhancement	Linear Histogram AGC, CLAHE, LAP, Sharpen, De-noise, Electronic image stabilization
Camera Control	Ethernet, RS-422
Other interfaces	Serial in/out for telemetry, GPIO

DELIVERABLES

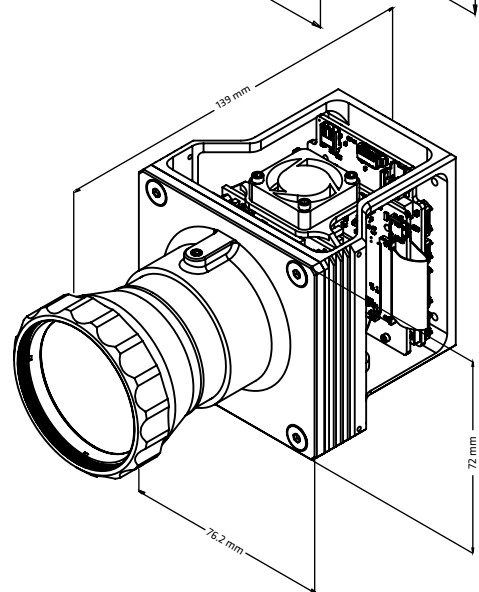
Vayu HD with 25mm or 50 mm lens
Software, documentation
Rugged delivery/storage case
Controlled under ECCN 6A003.b.4.b



+ 25 mm lens



+ 50 mm lens



ENVIRONMENTAL SPECIFICATIONS:

Size	25 mm: 122 mm x 77 mm x 72 mm 50 mm: 139 mm x 77 mm x 72 mm
Weight (approx)	25 mm: 450g (1 lbs) 50 mm: 520g (1.1 lbs)
Mounting	¼-20 and M4 tapped mount points
Input Voltage	11-14VDC
Power	12 W typical
Operating temperature	-20C to +45C

*Specifications and descriptions subject to change without notice.