

VAYU HD-I

WEATHER RESISTANT AND VIBRATION TESTED



The VAYU HD-I is an enclosed high definition system with an IP54 ingress rating. This HD infrared camera is water and dust resistant. It's also has been tested for vibration environments making it the most rugged camera we sell.

- + Highest resolution LWIR on the market
- + Uncooled VOx microbolometer
- + 60 Hz frame rate
- + 50 millikelvin NETD
- + 25 mm, 50 mm, 87mm lens options available

DETAILS

High definition infrared in difficult environments is what the Vayu HD-I was built for. This infrared system is enclosed in a IP54 ingress rated case with sealed and locking connectors. With the encasement Sierra-Olympia was able to add several mounting arrangements, making integration faster without giving up much Low-SWaP capability in weight critical missions.

The Vayu HD-I is capable of operating in a wider 35° temperature range than the unenclosed version, Vayu HD. While encased the HD-I was tested for operation in vibration frequencies.

APPLICATIONS

- + Low-SWaP aerial integration
- + Wide area surveillance
- + Aerial mapping
- + Wildlife, wildfire, S&R
- + Navigation, surveying
- + Driver vision
- + Unmanned vehicles
- + Film production





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EXPORT CLASSIFICATION: DUAL USE

FEATURE SPECS

DETECTOR



Detector Type	Uncooled VOx Microbolometer
Array Format	1920 x 1200
Pixel Pitch	12 Micron
Spectral Response	LWIR
Frame Rate	60 Hz
Bit Depth	16-bit
NETD	50 mK

ENVIRONMENTAL



Size (L x W x H)	25 mm: 151 x 85 x 85 mm 50 mm: 141 x 85 x 85 mm 87 mm: 171 x 89 x 89mm
Weight	25 mm: 860g 50 mm: 890g 87 mm: 1180g
Input Voltage	11 to 14 VDC
Power Dissipation	14W typical at room temperature 15W maximum
Operating Temperature	-15°C to +55°C
Mounting	1/4-20 M4 tapped mounting holes
Sealed/Rated	IP54
Certifications	Operational vibration environment (MIL-810 514.6 Cat 24)
Standards/Compliance	FCC Part 15 Subpart B Class A

SYSTEM



Digital Video Output	SDI (1080p) USB3.0 UVC (RAW 16-bit)
IP Video Output	Ethernet (H.264, H.265)
NUC	Scene or Mechanical shutter
Image Enhancement	Linear Histogram AGC, CLAHE LAP, Sharpen, De-noise, Electronic image stabilization
Color Palette Options	User color palettes/LUT
Digital Zoom/Pan	1X to 16X
Symbology	User Defined
Onboard Storage	64 GB
Camera control/command Interfaces/System Control	Ethernet Serial (RS-422/RS-232)
Other Electrical Interfaces	Aux serial in/out

LENS OPTIONS



F#	1.2
FOV or H/VFOV	25 mm: 49.5° by 32.1° 50 mm: 25.9° by 16.4° 87 mm: 15.1° by 9.46°
Focus	Thread Focus
Environmental (coating)	25 mm: Athermalized, high-performance AR coating 50 mm: Athermalized, high-performance AR coating

