

VAYU HD

UNCOOLED HIGH DEFINITION (1080P) THERMAL CAMERA



SIERRA-OLYMPIC
Technologies Inc.



- + True HD, 1920 x 1200 x 12 μ m Uncooled VOX Microbolometer Array
- + Standard Video Outputs: HD-SDI, IP-Video (H.264/MJPEG), 16-bit CameraLink[®]
- + Rugged, IP67 Sealed Design for Outdoor Use

The Vayu HD is the world's first Full High Definition uncooled thermal camera capable of 1080p output. The Vayu HD provides unmatched image resolution, sensitivity, and detector quality for the most stunning thermal imagery ever offered in a stand-alone commercially designed camera.

The Vayu HD processor core offers some of the most refined capabilities found in any thermal camera ever produced. Standard offerings include real-time extended image processing tools found in no other camera, electronic image stabilization, on-board image and video storage, and true Ethernet capabilities. Optional extension capabilities include object tracking and moving target detection with telemetry, NMEA metadata tagging in the Ethernet stream.

Because of the special sensor, a custom-designed 24mm F1.1 optic is provided with the system. The lens focuses via the locking thread mount, and supports the systems IP67 enclosure rating. The lens is athermalized, offers a 52° HFOV with minimal distortion, and has a hard-carbon coating for direct exposure to outdoor environments.

APPLICATIONS:

- + Degraded Vision
- + Wide Area Surveillance
- + Maritime Imaging
- + Navigation
- + Rugged Military Imaging
- + Unmanned Vehicle



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CAMERA FEATURES:

- + 1920 x 1200 resolution
- + 12µm pixel pitch
- + HD-SDI, h.264, or 16-bit CameraLink video output

FEATURE SPECIFICATIONS:

DETECTOR

Detector Type	Uncooled VOx Microbolometer
Array Format	1920 x 1200
Pixel Pitch	12µm
Spectral Response	LWIR 8-14µm
Frame Rate	30Hz
1-point NUC	Scene or mechanical shutter

LENS

EFL	24mm
F#	1.1
Focus	Manual threads with lock ring
FOV	51.3° x 30.2° on 1920 x 1200
Environmental	Athermalized, IP67 compatible, DLC front element coating.

SYSTEM

Video formats	HD-SDI, IP-Video, CameraLink®
Sensor bit depth	16-bits on CameraLink®
HD-SPI/IP-Video Format	1920 x 1200 (1080p) H.264/MJPEG
IP Protocol	UDP, RTP, RTSP, IP-Unicast
H.264 Encoding	Base, main, or high profile
Image Enhancement	Linear Histogram AGC, CLAHE, LAP, Sharpen, De-noise
Camera Control	Ethernet or RS-422
Other interface	Serial in/out for telemetry, GPIO

DELIVERABLES

Vayu HD with 24mm lens
3m HD-SDI cable (BNC)
5m CameraLink® cable
5m Power cable with 120VAC-12VDC power supply
3m Ethernet cable
3m Aux cable for RS-422, serial, GPIO
Software, documentation
Rugged delivery/storage case

- + Integrated image enhancement functions
- + 1-year warranty
- + Athermalized 24mm F 1.1

ENVIRONMENTAL SPECIFICATIONS:

Size	206mm L x 128mm W x 91mm H with Lens and without sunshield.
Weight	2.7 Kg (6lbs) with lens
Camera Mount	¼ x 20 thread on base
Input Voltage	11-14VDC
Power	18 W typical
Operating temperature	-40C to +45C with sunshield/fan assembly

*Specifications and descriptions subject to change without notice.

