

VAYU HD

UNPARALLELED 1920 X 1200 LWIR IMAGERY



Featuring the world's first full HD 1920 x 1200 x 12 μ m uncooled microbolometer array, Vayu HD delivers superior image clarity and situational awareness in a SWaP-optimized package.

DETAILS

This camera will bring a small area into focus with high level of detail allowing the user to more accurately read an image from a further distance. With 87 mm model weighing < 1 kg this camera maintains low-SWaP capability while producing a highly detailed image making it excellent for aerial integration.

You can connect this camera to your current equipment with the USB3.0 raw video output for universal compatibility. All users will benefit from an onboard image processor that provides H.264/H.265 encoded RTP output and advanced image processing functions. The F/1.2 lenses are coated with a high-durability AR coating, and calibrated for optical performance. This camera also retains the ability to add optional features like object tracking and detection with telemetry, NMEA metadata packaging and more.

APPLICATIONS

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

- + Highest resolution LWIR on the market
- + Custom 25 and 50 mm optic options
- + Video outputs: HDMI, IP Video (H.264/H.265), USB3.0-UVC (raw 16 bit)
- + Low-SWaP integration (450 / 500 grams)



VAYU HD

HIGH-PERFORMANCE TWELVE-MICRON PIXEL PITCH LWIR

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	60Hz
Bit Depth	16-bit
NETD	50 mK

ENVIRONMENTAL



Power Dissipation	12 W typical at room temp, 13.5W maximum
Operating Temperature	-0°C to +45°C

LENS MODELS



EFL	25 mm / 50 mm / 87 mm
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°
Environmental Coating	Athermalized, high-performance AR coating
Focus	Thread focus
Size (L x W x H)	25 mm: 122 x 77 x 72 mm 50 mm: 139 x 77 x 72 mm 87 mm: 169 x 88 x 88 mm
Weight	25 mm: 450g 50 mm: 500g 87 mm: 997g

SYSTEM



Digital Video Output	HDMI (1080P), IP, USB3.0 UVC (RAW 16-bit)
IP Video	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
Onboard Storage	32GB std, Expandable to 512GB
Input Voltage	11-14VDC

