

48 MP EO/IR Gimbal Camera

A multi-sensor payload with two 48 MP visible-light cameras, a 640 x 512 thermal detector and a laser rangefinder. The three-axis gimbal provides continuous 360-degree yaw rotation. Listed weight is no more than 380 g.



Thermal Imaging

Detector	Uncooled focal-plane detector
Native detector resolution	640 x 512
Spectral band	8-14 um
Pixel pitch	12 um
NETD	<=50 mK
Thermal lens	19 mm
Thermal field of view	22.8 x 18.4 degrees (+/-5%)
Optional super-resolution output	1280 x 1024; not native detector resolution
Temperature functions	Spot measurement, area measurement and over-temperature alarm
Thermal digital zoom	8x

Visible-Light Cameras

Sensors	Two 48 MP, 1/2-inch CMOS sensors
Wide-angle lens	4.49 mm, F2.8
Zoom lens	15-50 mm, F3.7-F4.6
Listed equivalent optical magnification	11x across the visible-light imaging system
Hybrid magnification	160x; distinct from optical magnification
Photo	8000 x 6000, JPG
Video	4K at 30 fps; 1080p at 60 fps; MP4
Encoding	H.264 / H.265

THERMAL PAYLOADS / PRODUCT SPECIFICATIONS

Rangefinder

Wavelength	905 nm
Listed range	5-1200 m for a large object such as a building, with visibility ≥ 5 km
Listed accuracy	≤ 1 m

Gimbal and Interfaces

Stabilization	Three-axis
Yaw	Continuous 360-degree rotation
Pitch	-130 to +90 degrees
Roll	-60 to +60 degrees
Listed control interfaces	UART / 100 Mbps Ethernet, optional configuration
Video interface	100 Mbps Ethernet
Image-stream output	RTSP / UDP selectable; configurable bitrate 2.5-6 Mbps
Storage support	MicroSD card up to 512 GB; supplied card not specified

Physical and Electrical

Listed weight	≤ 380 g; included mounting hardware and cables not specified
Dimensions	90 x 105 x 124 mm
Input voltage	DC 10-26 V; nominal DC 12 V
Steady-state power	≤ 20 W
Startup peak current	≤ 5 A at 24 V DC, as listed in the supplied specifications
Operating temperature	-20 to +55 C
Storage temperature	-40 to +60 C

Configuration notes

The 48 MP and 4K specifications refer to the visible-light cameras. Native thermal resolution is 640 x 512.

Confirm temperature range, accuracy conditions and required data format for the selected configuration.

Per-pixel temperature-file export is not established by the available specifications.

Aircraft compatibility requires review of the platform, mounting, power, control and data requirements.