

Compact Multi-Sensor Thermal Gimbal

A three-axis payload combining two 8 MP visible-light cameras, a 640 x 512 thermal detector and a laser rangefinder. Listed features include spot and area temperature measurement, with a payload weight of no more than 250 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%)
Temperature functions	Spot measurement, area measurement and over-temperature alarm
Thermal digital zoom	16x

Visible-Light Cameras

Sensors	Two 8 MP, 1/2.8-inch CMOS sensors
Wide-angle lens	8 mm, F1.6
Telephoto lens	25 mm, F3.5
Listed fields of view	Wide: 48.8 degrees; telephoto: 15 degrees
Photo	3840 x 2160, JPG
Video	3840 x 2160 at 30 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
Listed control interfaces	UART / Ethernet; configuration to be confirmed
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	≤ 250 g; included mounting hardware and cables not specified
Dimensions	70 x 93.5 x 108 mm
Input voltage	DC 10-26 V; nominal DC 12 V
Steady-state power	≤ 8 W
Operating temperature	-20 to +55 C
Storage temperature	-40 to +60 C

Configuration notes

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.