

Gremsy Vio

MULTI-SENSOR EO / IR GIMBAL

A stabilized multi-sensor payload combining a 20× zoom EO camera, a 640×512 radiometric thermal imager, and an IR laser rangefinder for ISR and inspection.



20×
OPTICAL ZOOM

640×512
THERMAL ARRAY

8.51MP
EO CAMERA

≤50MK
THERMAL NETD

3AXIS
STABILIZED GIMBAL

EO Camera

Sensor	Exmor R CMOS sensor
Sensor Size	0.4"
Photo Resolution	8.51 megapixels
Lens	4.4mm to 88.4mm
Zoom	Optical 20x, Digital 12x Super Resolution 30x
Image Size	3840 x 2160
Photo Format	JPEG
Video Resolution	3840 x 2160 @ 30 fps 1920 x 1080 @ 60 fps
Video Format	MP4
Aspect Ratio	Photo 16:9
Field of View (FOV)	Wide 72° · Telephoto 4.1°
Shutter Speed	1/30 to 1/2000s
Exposure Settings	Auto, Shutter speed, Iris, Bright, Manual
White Balance	Auto, Indoor, Outdoor
Zoom Mode	Combined, Separate, Super Resolution

Key Capabilities

- 20× optical / 30× super-resolution zoom
- 640×512 radiometric thermal imager
- Integrated IR laser rangefinder
- 3-axis stabilization ($\pm 0.01^\circ$)
- Simultaneous EO + IR capture

APPLICATIONS

ISR and reconnaissance, infrastructure and asset inspection, search & rescue, wildfire and public-safety operations, and perimeter security.

Thermal

Sensor	Uncooled Vox Microbolometer
Array Format	640 x 512
Frame Rate	60Hz
Pixel Size	12 μ m
Thermal Spectral Range	8-14 μ m
Scene Temperature Range	140°C (high gain) to 500°C (low gain)
Lens Options	Fixed Focus, 32° (HFOV) 14 mm (EFL)
Digital Zoom	1x to 8x zoom
Resolution	Photo 640x512 · Video 640x512 @ 60Hz
Format	Photo JPEG · Video MP4
Thermal Sensitivity (NETD)	Professional: ≤50 mK
Radiometry	Yes, overlay on the runtime video

Gimbal & Rangefinder

Angular Vibration Range	$\pm 0.01^\circ$
Max Controlled Rotation Speed	Pan / Tilt / Roll 100°/s
Mechanical Endpoint Range	Tilt $\pm 143^\circ$ · Pan $\pm 320^\circ$ Roll -260° to 80°
Controlled Rotation Range	Tilt $\pm 120^\circ$ · Pan $\pm 310^\circ$ · Roll $\pm 45^\circ$
Operating Temperature	32°F – 122°F

INTEGRATED IR LASER RANGEFINDER

On-board rangefinder provides target distance for geolocation, overlaid with radiometric thermal for ISR, inspection, and search & rescue missions.