

PV Labs designs and manufactures gimbals that provide best in class performance while also operating in the most demanding environments. The mini-Eclipse utilizes PV Labs proprietary Gen-V technology and is based on the PV-15's open architecture design. The mini-Eclipse provides customers with ease of sensor integration, full meta-data support, and geo-pointing to suit the needs of the most demanding applications. When you choose the mini-Eclipse, you are getting more than a stabilized platform—you are getting over 30 years of experience in delivering industry leading quality and performance as well as expert support.

Key Benefits

- 3 axis stabilization; ≤ 4 microradian jitter performance on all fixed and rotor wing aircraft
- Larger payload volume than all other systems in class
- Open Architecture;
 - Available for custom sensors;
- Best in class durability and maintainability;
 - Core components are user serviceable; line replaceable or shop replaceable units



Specification	mini-Eclipse
Gimbal Dimensions (Dia. x H)	16.5" Dia. Dome x 21.25"
Gimbal Weight (without payload)	<75 lbs (+ external gimbal cables)
Payload Weight/Volume	40 lbs (typ.) 100 lbs (max)/1320 in ³ (Inside gimbal dome enclosure)
Add'l Payload Electronics Volume	99 in ³ (inside gimbal bulkhead)
Power Requirements	<280 W (Typ), 1400W (Max) per MIL-STD 704
Steering and Stabilization	
Axes of Stabilization	6 axes: 3 internal/3 external (azimuth/roll/elevation)
Stabilization Performance (inner axes)	3 axis Stabilization; $\leq 4 \mu\text{R}$ RMS Jitter ¹
Range of Travel	Yaw 360° continuous (turret configuration)
	Roll $\pm 60^\circ$
	Pitch $\pm 110^\circ$
	LOS $\pm 1^\circ$ (with step-stare capability)
Slew Rate	Yaw $\geq 100^\circ/\text{s}$
	Roll $\geq 60^\circ/\text{s}$
	Pitch $\geq 100^\circ/\text{s}$
Maximum Acceleration	$\geq 300^\circ/\text{s}^2$
Vibration Isolation	Active; $F_N = 10\text{-}20$ Hz
Geo-Pointing	+/- 1.5 mrad pointing accuracy

Environmental	
Temperature Range (Operating)	-40°C to +50°C (wider temperature ranges available on request)
Temperature Range (Non-operating)	-55°C to +71°C
Altitude – maximum (Subject to temperature limits)	30,000 ft
Load Resistance – Shock / Crash	6g for 20 ms / 10 g for 11 ms
Environmental Systems	Breather and desiccant systems
Features	
GPS Interface	OEM 6 (externally mounted)/SAASM Compliant Available
Gimbal Control Interface	Graphical User Interface/Gimbal API/Console/Joystick
Line of Site Meta-Data	Yes; (Nav-GPS, mount/earth LOS angles, BIT, target position, UTC)
Included Components	Shipping Container + External Gimbal Cables + Test Stand +GUI
Mounting Options	The mini-Eclipse may be mounted in any attitude
Maintenance	All core electronics modules accessible
Options	
Special Gimbal Operating Modes	Step Stare/Motion Compensation (Forward/Rotational); Line Tracking; Path Tracking; Absolute Level Horizon (INS Based)
Interface Software Development Kits	Remote Control Interface (RCI) Computer Graphics Interface (CGI)
Thermal Management	Heater Modules, Heat Exchanger, Circulating Fans
Service and Support	
Warranty	12 months/5,000 hrs
Training Available	Operation/Maintenance (Line Replaceable and Shop Replaceable Units)

PV-15 Product Family



PSI Vision 3000
Wide Area Motion Imagery Sensor



Multi-Sensor EO/IR



mini-Eclipse (6 axis)

Product Availability	6 mos ARO	Additional Information	www.pv-labs.com
Pricing	Call for quote	Contact Information	sales@pv-labs.com