

PV Labs designs and manufactures sensor systems that provide best in class performance while also operating in the most demanding environments. The PV Labs Gen-V technology platform enables a class of optical systems that set the standard for next generation long range intelligence, surveillance and reconnaissance. With Gen-V technology, PV Labs has been able to improve the overall system capability by matching the performance of the optical bench to the sensor system. PV Labs has utilized the largest payload volume in its class to maximize the aperture of the sensor system; effectively giving 20" Class MWIR performance in a 15" class size gimbal. This results in longer range detection, recognition and identification of targets across our product line in each size category.

Key Benefits

- 20" Class MWIR performance in a 15" class size gimbal
- Matched FOV for MWIR/EO Channels
- High resolution Electro-Optic Imaging
 - See more, gain context, prosecute decisions - with more information
- High resolution imagery enables leading edge machine vision techniques to be applied to full motion video



Same IFOV

Specification	PV-15
System Dimensions (Dia. x H)	16.5" Dia. Dome x 18.5"
Gimbal Weight (without payload)	<65 lbs (+ external gimbal cables)
Total System Weight	115 lbs
Power Requirements	<280 W (Typ), 1400W (Max) per MIL-STD 704
Steering and Stabilization	
Axes of Stabilization	5 axes: 3 internal/2 external (azimuth/elevation)
Stabilization Performance (inner axes)	3 axis Stabilization; $\leq 4 \mu\text{R RMS Jitter}^1$
Range of Travel	Yaw 360° continuous (turret configuration)
	Pitch $\pm 110^\circ$
	LOS $\pm 1^\circ$ (with step-stare capability)
Slew Rate	Yaw $\geq 100^\circ / \text{s}$
	Pitch $\geq 100^\circ / \text{s}$
Maximum Acceleration	$\geq 300^\circ / \text{s}^2$
Vibration Isolation	Active; $F_N = 10\text{-}20 \text{ Hz}$
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
Airspeed – maximum (Non-operating/operating)	425 knots IAS / 350 knots IAS

Sensor Characteristics	IR Sensor	
Camera type	Staring Focal Plane Array	
Wavelength	3.4 - ≥ 5.1 micrometer	
Camera Pixels	1280 x 1024	
Pixel Pitch	15 μm	
Optical Focal Lengths	40 mm, 200mm, 1000mm, 1500 mm	
Horizontal Fields of View	27°, 5.5°, 1.1°, 0.73°	
Polarity	White Hot/Black Hot	
Other Processing Features	Electronic Zoom	
Output Type	1080p, 720p	
	EO Spotter	EO Wide
Camera type	CMOS RGB Focal Plane Array	1/2.8"-type Exmor CMOS
Wavelength	450-625 nm	
Camera Pixels	5120 x 3840	2096 x 1561
Pixel Pitch	6.4 μm	2.5 μm
Optical Focal Lengths	1700mm (3400mm Eqv)	11.0 – 55.0 mm Continuous
Horizontal Fields of View (FOV)	1.10°	26.99° – 5.50° Continuous
Other Processing Features	Electronic Zoom	
Output Type	1080p, 720p	

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)
Mounting Options	The PV-15 may be mounted in any attitude
Maintenance	All core electronics modules accessible on flight line
Options	
Special Gimbal Operating Modes	Step Stare/Motion Compensation (Forward/Rotational); Line Tracking; Path Tracking
Interface Software Development Kits	Remote Control Interface (RCI) Computer Graphics Interface (CGI)
Service and Support	
Warranty	12 months/5,000 hrs
Training Available	Operation/Maintenance (Line Replaceable and Shop Replaceable Units)

Product Availability	12 mos ARO	Additional Information	www.pv-labs.com
Pricing	Call for quotation	Contact Information	sales@pv-labs.com