



# PRODUCT DATA SHEET - LDG 2A-265

Specifications	LDG-2A-265
Gimbal Dimensions (L x W x H)	36" x 27" x 27"
Gimbal Weight (w/o payload)	110 lbs (+ external gimbal cables 5-10 lbs. installation dependant)
Payload Weight (typical)	45 – 100 lbs
Payload Volume (typical)	≈3800 in <sup>3</sup> with standard SU or ≈4000 in <sup>3</sup> with side-mounted SU option
Payload Long Dimension (maximum)	14½" with standard SU or 21" with side-mounted SU option
Power Requirement (excluding payload)	6A typical – 25A max. at 28VDC
Steering & Stabilization	
Stabilization Type	Multiple axes (6 axes passive, 3 axes dynamic rotational, 2+ axes steering)
Passive Vibration Isolation	Yes, F <sub>N</sub> = 6-12 Hz
Order of Outer Axes	Roll, Pitch, (+ limited travel on internal LOS axis)
Stability (Line of Sight Jitter – excluding at resonances)	< 5 μRAD RMS (as measured on individual axes)
Geo-Pointing	IMU/INS providing +/- 1.5 milliradians pointing accuracy
Slew Rates	≥ 55°/sec maximum
Maximum Acceleration (payload dependent)	≥ 100°/sec <sup>2</sup> maximum
Range of Travel	Roll ± 120° (adjustable according to program requirements)
	Pitch ± 50° (adjustable according to program requirements)
	LOS ± 6.5° (travel on internal LOS axis without third outer axis option)
Environmental	
Temperature Range (Operational)	-35°C to +40°C
Temperature Range (Non-operational)	-55°C to +71°C
Altitude – maximum (subject to temperature limits)	35,000 ft
Airspeed – maximum (non-operating / operating)	350 knots IAS (in stow mode) / 150 knots IAS
Load Resistance – Shock / Crash Safety	6g for 20 ms / 10 g for 11 ms
Environmental Systems	Breather and desiccant systems
Features	
GPS Interface	Novatel OEM-V (external mounting is standard)
Gimbal Control Interface	cTune2 Gimbal Control and Monitoring Tool
LOS Meta-Data	Yes (Nav-GPS, mount/earth LOS angles, gimbal status, target position, UTC time)
Included Components	Shipping Container + External Gimbal Cables + Test Stand + cTune2
Optional Items	
Special Gimbal Operating Modes	Motion Compensation (Forward/Rotational); Line Tracking; Path
Interface Software Development Kits	RCI and CGI SDKs - To assist with gimbal interface software development.
Third Outer Axis	Line of Sight Outer Axis Range ± 195° or continuous rotation options.
SU Orientation Change	The stabilization unit can be relocated to accommodate different payloads.
Thermal Management	Heater, circulating fans and heat exchanger options available.
Internal GPS	Option to mount GPS within the gimbal outer ring.
Mounting Brackets/Pods/Fairings	Fuselage, side-mount and removable half-door installations available.
Service and Support	
Warranty	12 months/1000 hours
Required Maintenance Checks	Pre-flight, 100 hour and 1000 hour
Training Available	Operation/Maintenance
Contact Information/Website	<a href="mailto:sales@pv-labs.com">sales@pv-labs.com</a> / <a href="http://www.pv-labs.com">www.pv-labs.com</a>



**PV Labs Inc. LDG 2A-265 Gimbal with optional pod and fairing**



# PRODUCT DATA SHEET - LDG 3A-265

Specifications	LDG-3A-265
Gimbal Dimensions (L x W x H)	36" x 27" x 27"
Gimbal Weight (w/o payload)	117 lbs (+ external gimbal cables 5-10 lbs. installation dependant)
Payload Weight (typical)	45 – 100 lbs
Payload Volume (typical)	≈3800 in <sup>3</sup>
Payload Long Dimension (maximum)	14½"
Power Requirement (excluding payload)	6A typical – 25A max. at 28VDC
Steering & Stabilization	
Stabilization Type	Multiple axes (6 axes passive, 3 axes dynamic rotational, 3 axes steering)
Passive Vibration Isolation	Yes, F <sub>N</sub> = 6-12 Hz
Order of Outer Axes	Roll, Pitch, LOS
Stability (Line of Sight Jitter – excluding at resonances)	< 5 μRAD RMS (as measured on individual axes)
Geo-Pointing	IMU/INS providing +/- 1.5 milliradians pointing accuracy
Slew Rates	≥ 55°/sec maximum
Maximum Acceleration (payload dependent)	≥ 100°/sec <sup>2</sup> maximum
Range of Travel	Roll ± 120° (adjustable according to program requirements)
	Pitch ± 50° (adjustable according to program requirements)
	LOS ± 195° (or continuous rotation options available)
Environmental	
Temperature Range (Operational)	-35°C to +40°C
Temperature Range (Non-operational)	-55°C to +71°C
Altitude – maximum (subject to temperature limits)	35,000 ft
Airspeed – maximum (non-operating / operating)	350 knots IAS (in stow mode) / 150 knots IAS
Load Resistance – Shock / Crash Safety	6g for 20 ms / 10 g for 11 ms
Environmental Systems	Breather and desiccant systems
Features	
GPS Interface	Novatel OEM-V (external mounting is standard)
Gimbal Control Interface	cTune2 Gimbal Control and Monitoring Tool
LOS Meta-Data	Yes (Nav-GPS, mount/earth LOS angles, gimbal status, target position, UTC time)
Included Components	Shipping Container + External Gimbal Cables + Test Stand + cTune2
Third Axis Cable Management	Components to manage payload cabling through the third axis.
Optional Items	
Special Gimbal Operating Modes	Motion Compensation (Forward/Rotational); Line Tracking; Path
Third Axis Continuous Rotation	Components to allow continuous rotation about the LOS axis.
Interface Software Development Kits	RCI and CGI SDKs - To assist with gimbal interface software development.
Thermal Management	Heater, circulating fans and heat exchanger options available.
Internal GPS	Option to mount GPS within the gimbal outer ring.
Mounting Brackets/Pods/Fairings	Fuselage, side-mount and removable half-door installations available.
Service and Support	
Warranty	12 months/1000 hours
Required Maintenance Checks	Pre-flight, 100 hour and 1000 hour
Training Available	Operation/Maintenance
Contact Information/Website	<a href="mailto:sales@pv-labs.com">sales@pv-labs.com</a> / <a href="http://www.pv-labs.com">www.pv-labs.com</a>



**PV Labs Inc. LDG 3A-265 Gimbal with optional pod and fairing**