WASP™-200 Laser Rangefinder

UAV-Optimized, 200 m Miniature Laser Rangefinder (LiDAR)

CU1-001
(UART)

MC1-001
(IP67, CAN Bus, RS-232)

MU1-001
(IP67, UART)

CD1-001
(DroneCAN)

The WASP™-200 series of rangefinders are LiDAR sensors designed to measure ranges of 200 m off of non-cooperative targets with remarkable accuracy and precision in an ultra-tiny package with FDA Class 1 laser certification. The WASP™ Laser Rangefinder provides robust measurements off of low-reflectivity targets. It uses single shot time of flight (ToF) ranging which allows it to work from fast moving vehicles on fast moving targets. It is designed with a host of advanced features making the WASP™ series of rangefinders well-suited for a variety of applications. The WASP™ Laser Rangefinder can identify targets beyond 300 meters away at a rate of up to 56 ranges per second with custom options to 10 Khz, and with accuracy better than 10 cm at 200 m and performance over water.

Highlights

- High repetition rate for fast single-shot ranging for fast scanning and moving platforms
- Programmable burst mode averaging
- Class 1 Laser Product
- IP 67 option
- Optional fields of view available for proximity detection applications
- ArduPilot supported (Plane, Copter, and Rover)
- Connector options including pigtails
- Durable molded ABS plastic housing
- Integrated back or front mounting

Applications

- Robotics and Drones
- Scanned LiDAR
- Sense and Avoid
- Height Above Ground (HAG) flight
- Industrial Automation
- Height & Distance Measurements
- Maritime Operations
- Precise Proximity Detection

Software Features

- Programmable burst mode and moving averaging for enhanced precision
- Programmable burst mode averaging
- Background solar noise detection and compensation
- Programmable sensitivity and range offsets

The WASP™ Laser Rangefinder are designed and manufactured in Attollo's 34,000 ft^2 facility in Camarillo, California. Attollo Engineering specializes in infrared imaging and has a wide range of laser-related solutions, including laser seekers, laser warning systems, and laser see-spot technology. Attollo is AS9100 certified.

SYSTEM FEATURES

WASP™ 200-LRF




Specifications	CU1-001	MU1-001	MC1-001	CD-001
Laser Eye Safety	Class 1 Laser Product			
Range Performance	0.15 m to 175 m 18% reflectivity			
Range Performance *Full Sun Conditions	0.1 m to 300 m 80% reflectivity			
Maximum Range	315 m			
Accuracy	< 10 cm			
Spectral Band	905 nm			
Resolution	1 cm			
Update Rate	Single shot to 56 Hz		Single shot to 50 Hz	
Wavelength	905 nm			
Beam Divergence	8 mrad x 1 mrad			
Optical Aperture	18 mm			
Input Voltage	3.5 V to 16 V		3 V to 16 V	
Operating Current	< 75 mA @ 5 V Operating Voltage		< 75 mA @ 10 V Operating Voltage	
Inrush Current	< 100 mA @ 5 V Operating Voltage		< 100 mA @ 10 V Operating Voltage	
Connector	8 pin Hirose Connector or Pigtail	ODU IP67		
Communication Interface	UART		CAN Bus, RS-232	DroneCAN
Dimensions (L x W x H)	44 x 20 x 42 mm^3	44 x 34.8 x 42 mm^3		
Weight	26 grams	46 grams		
Operating Temperature	-40 to + 60 °C			
	-40 to 140 °F			

ATTOLLO Engineering

See More

Please scan QR code for more information

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