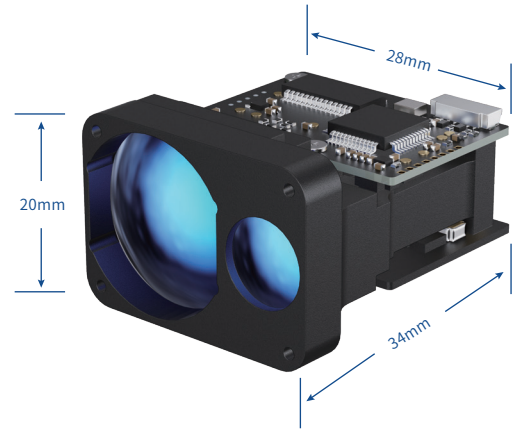


SR3000

3 km Miniature Laser Rangefinder Module

- Wavelength: 905 nm
- Class 1



Product Introduction

The SR3000 is a 3,000 m miniature laser rangefinder module based on 905 nm semiconductor laser technology. Compliant with Class 1 eye safety standards, it features an ultra-wide ranging scale of 3 m to 3,000 m with precision up to ± 0.4 m. Integrating core functions such as single and continuous ranging, the module offers advantages in compact size, long-range performance, high stability, and all-weather adaptability. It is ideal for high-precision ranging terminals like commercial drones, outdoor observation gear, and security surveillance, providing highly integrated and reliable solutions for industry clients.

Product Highlights



- Max. Ranging Distance: 3,000 m



- SWaP Optimized: $34 \times 28 \times 20$ mm, 20 ± 0.5 g, 0.8 W



- Ranging Accuracy: Up to ± 0.4 m (Close Range)



- Universal UART Interface



- Wide Temperature Operation: -20°C to 70°C



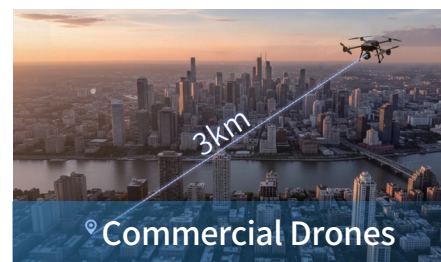
- Shock and Vibration Resistant Design

Product Parameters

Product Model	SR3000
Specifications	
Eye Safety Level	Class 1 (IEC 60825-1)
Laser Wavelength	905±10nm
Beam Divergence (Typical)	2×3.5mrad
Max. Range (Visibility ≥ 6km)	≥3,000 m (@60% reflectivity, building target)
Min. Range	3m
Ranging Accuracy (Building Target)	d≤800m: ±(0.4m+ d×0.07%)m d>800 m: ±1 m (d represents distance in meters)
Measurement Frequency	1 Hz to 5 Hz (Adaptive)
Probability of Detection	≥98%
False Alarm Rate	≤1%
Electrical Specifications	
Interface Type	UART(TTL_3.3V/2.5V)
Power Supply Voltage	DC 3 - 5V
Standby Power Consumption	≤0.5 mW (Power on pulled low) ≤0.3 W (Power on pulled high)
Operating Power Consumption (+5Vin)	≤0.8W@25°C
Start-up Time	≤200ms
Physical Properties	
Weight	20±0.5g
Dimensions	34×28×20mm (L×W×H)
Shock Resistance	1,200g, 1ms
Vibration Resistance	5 - 50 - 5 Hz, 1 octave/min, 2.5 g
Environmental Adaptability	
Operating Case Temperature	-20°C to +70°C
Storage Case Temperature	-25°C to +75°C
Reliability	MTBF ≥ 1,500 h

This information is for reference only. Images and technical specifications are subject to change without notice.

Applications



Company Profile

Raytron Microelectronics Co., Ltd. is a wholly-owned subsidiary of Raytron Technology Co., Ltd., providing global customers with infrared detectors, core modules, and industry solutions.

Our products are widely used in various fields, including infrared temperature measurement, night vision observation, machine vision, intelligent driving, Commercial Drone, smart industry, security monitoring, Internet of Things, medical epidemic prevention and gas detection.

With the mission of "to create incremental value for customers with technological advancements", we are committed to leaving a name in the history of constantly expanding human perception capabilities.



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