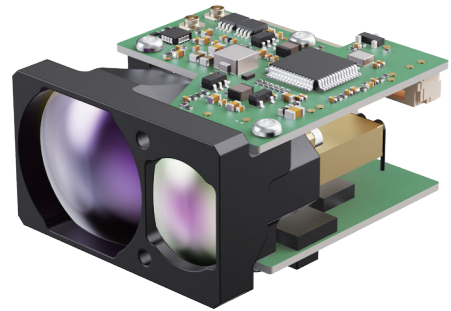


LM5000 mini

5 km Ultra-Compact Laser Rangefinder Module

- Wavelength: 1535 nm
- Class 1



Product Overview

The LM5000 mini is an ultra-compact laser rangefinder module featuring a proprietary 1535 nm erbium-glass laser and Class 1 eye safety. With a 20–6,000 m ranging range and up to 5 km ranging for vehicle targets, it integrates single/continuous ranging, first/last target detection, and multi-target ranging. Compact, lightweight, and low-power, it is ideal for commercial and industrial drones, outdoor handheld devices, and security applications.

Key Features



- SWaP-optimized, compact, lightweight, and low-power design



- Long-range performance with $\pm 1\text{m}$ accuracy



- Small beam divergence for precise target positioning



- Adjustable 1–10 Hz measurement frequency



- Shock-resistant, wide-temperature, and strong-light-resistant for demanding environments



- Flexible integration for streamlined development

Specifications

Model	LM5000 mini
Basic Specifications	
Laser Wavelength	1535±5nm
Eye Safety Class	Class 1 (IEC 60825-1)
Laser Beam Divergence	≤0.65mrad
Ranging Performance (Building)	20~6000m
Ranging Accuracy (Building Target)	±1m
Measurement Frequency	1~10Hz
Multi-Target Detection	Up to 3
Detection Probability	≥98%
False Alarm Rate	≤1%
Electrical Specifications	
Communication Interface	UART(TTL_3.3V/2.5V)
Supply Voltage	DC 4.5~16V
Operating Power Consumption	5V, ≤0.6W@1Hz; 5V, ≤2W@10Hz
Start-up Time	≤400ms
Physical Specifications	
Weight	<38g
Dimensions (L × W × H)	<43×35×22.5mm
Shock	75g, 6ms
Vibration	0.01~0.04g ² /Hz, 20~2000Hz
Environmental Specifications	
Operating Temperature	-20 ~ +70°C
Storage Temperature	-25 ~ +75°C

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

Applications



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