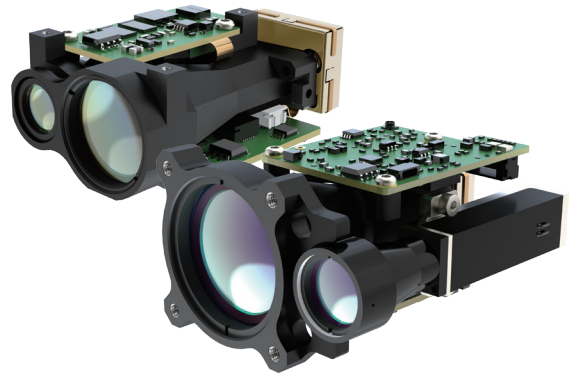


LM Series

Eye-safe Laser Rangefinder Module

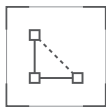
• Wavelength: 1535nm • Eye Safety: Class 1



Description

The LM Series eye-safe laser rangefinder module is developed based on our self-developed 1535nm erbium-doped glass laser, utilizing a single-pulse Time-of-Flight (TOF) ranging method. It offers key advantages such as multiple selectable long-range measurement options, a high eye-safety factor, and a small beam divergence. The module features a robust structural design, providing strong resistance to shock and vibration for excellent durability. It supports TTL (customizable to RS422) serial communication and is provided with a GUI software and communication protocol, facilitating user integration and secondary development. Lightweight and compact, the module can be widely integrated into various optoelectronic systems, including handheld observation devices, civilian UAVs, and security gimbal systems. It provides a reliable, efficient, and professional solution for optoelectronic ranging applications.

Highlights



Long Range



Small Size



High Stability



Eye Safety



Lightweight



High Shock Resistance

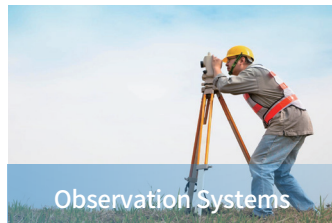
Specifications

Product Model	LM3000	LM6000	LM8000
Wavelength	1535±5 nm		
Eye safety	Class 1 (IEC 60825-1)		
Divergence	~0.6mrad	~0.3mrad	
Range (Building)	15~4200m	20~7100m	20~10000m
Frequency	1~10Hz (adjustable)		
Accuracy	±1m		
Detection probability	≥98%		
False alarm rate	≤1%		
Multi-target detection	Up to 3		
Interface	UART (TTL_3.3V)		
Operating power	≤2.5W@10Hz	≤3.5W@10Hz	
Weight	48×31×21mm	65×48×32mm	
Dimension	32±1g	58±1g	
Mechanical shock	1200g, 1ms	75g 6ms	
Vibration	5~50~5Hz, 1 octave per minute, 2.5g	0.01~0.04g2/Hz, 20~2000Hz	
Operation temperature	-20 ~ +70°C		
Storage temperature	-20 ~ +75°C		

Applications



UAV Pods



Observation Systems



Security Applications



Handheld Laser Rangefinders

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.



Official Website



LinkedIn Official Account

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