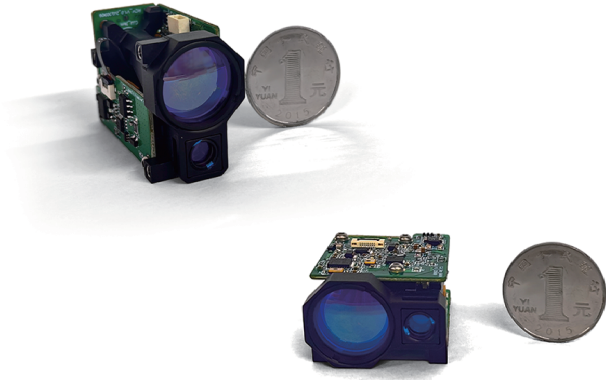


Laser Rangefinder Module Series

LSP-LRS-0310F

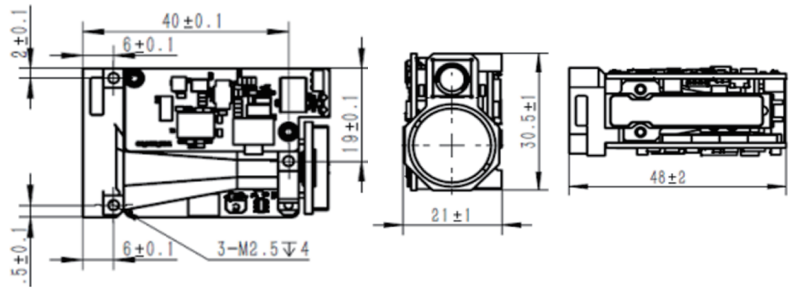


01 Light-Weight
Only Weighs = 33g

02 Small Size
48*21*31mm

03 High Precision
Accuracy $\pm 1m$

04 Eye-safety
Wavelength 1535nm



Adapted for small devices

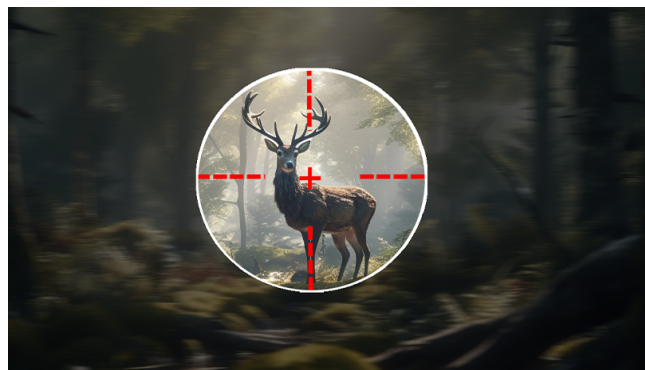
Ranging Module

The module integrates an advanced laser, high-end transmitting and receiving optics, and a sophisticated control circuit. These components work together to provide a visible range of up to 3km under ideal conditions.



UAVs Distance Sensor

LSP-LRS-0310F ranging modules excel in UAV ranging, offering precision in a compact package. They're lightweight, space-efficient, and ideal for ensuring UAVs navigate, avoid obstacles, and maintain safe distances, enhancing flight safety and performance.



Scope Aiming and Targeting

A mini-sized ranging module offers superior portability and versatility, making it ideal for applications like firearm aiming.

Laser Rangefinder Module Series

Technical Datasheet



LSP-LRS-0310F

Wavelength	1535±5	nm
Operating range	3,000m@objective: 2.3*4.6m;	m
Laser divergence angle	<0.6	mrad
Continuous ranging frequency	1-10(Adjustable)	Hz
Ranging accuracy	1	m
Minimum range	<20	m
Range resolution	≤30(Multi-target)	m
Voltage supply	DC6~36	V
Weight	≤35	g
Power consumption	“Average ≤1W(@1Hz); Peak ≤5W”	W
Dimension	≤48*21*31	mm
Working temperature	-40~+65	°C
Communication interface	TTL	

Note:

1. The laser emitted by this ranging module is 1535nm, which is safe for the human eye; however, it is recommended not to stare directly at the laser.
2. When adjusting the parallelism of the three optical axes, be sure to cover the receiving lens to avoid permanent damage to the detector due to strong backscattering.
3. This ranging module is not airtight; please ensure that the relative humidity in the usage environment is below 80% and maintain a clean and hygienic environment to prevent damage to the laser.
4. The measurement range of the ranging module is related to atmospheric visibility and the nature of the target. Ranging may be reduced in conditions such as fog, rain, and sandstorms. Targets like green clusters of leaves, white walls, and exposed limestone with good reflectivity can increase the measurement range. Additionally, an increased angle between the target and the laser beam can reduce the measurement range.
5. It is strictly prohibited to emit laser beams towards highly reflective targets such as glass or white walls within 20 meters to avoid excessive backscattering that could damage the APD detector.
6. Do not plug or unplug cables while the power is on.
7. Ensure that the polarity of the power supply is correctly connected; otherwise, it may result in permanent damage to the equipment.

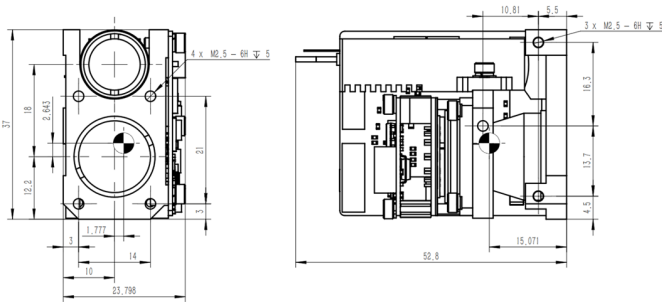
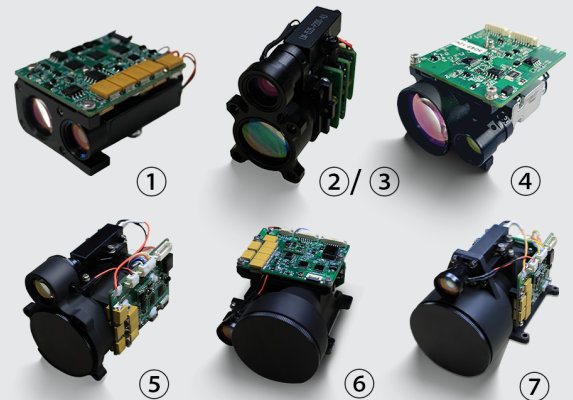
3-12km RANGEFINDER(1535nm)

Features :

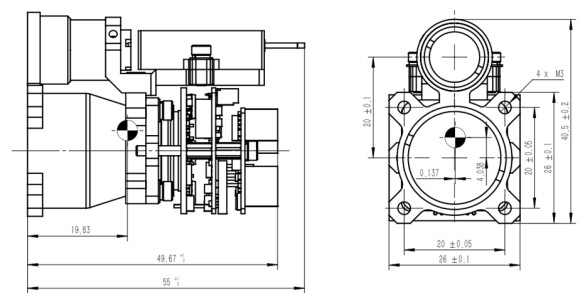
- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Developed based on 1535nm Er: Glass Laser

Applications :

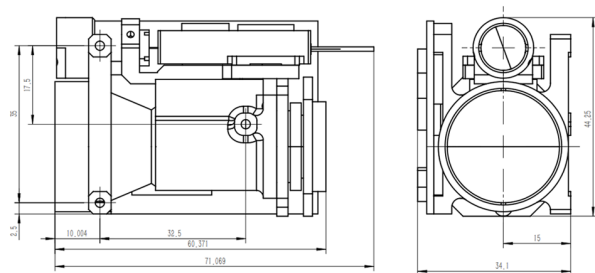
- Laser Ranging
- Targeting
- Photoelectric reconnaissance



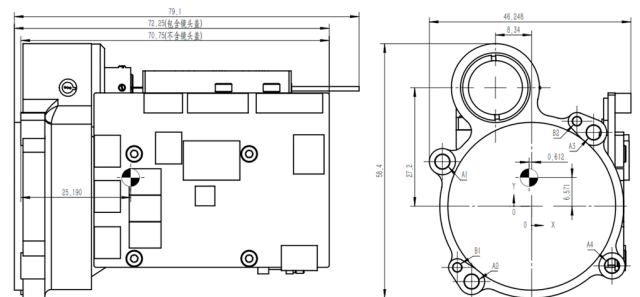
① LSP-LRS-0310MS-01



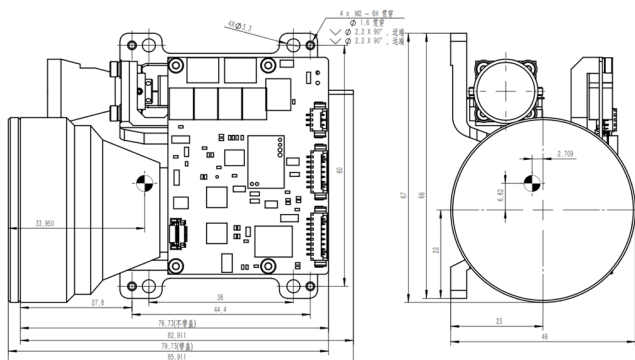
② LSP-LRS-0410A / ③ LSP-LRS-0510A



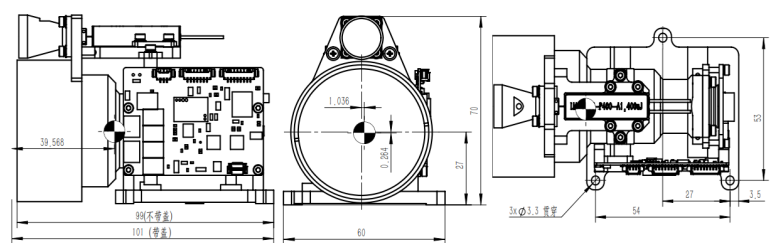
④ LSP-LRS-0610A



⑤ LSP-LRS-0810A



⑥ LSP-LRS-1010A



⑦ LSP-LRS-1210A

Specification	LSP-LRS-0310MS-01	LSP-LRS-0410A	LSP-LRS-0510A	LSP-LRS-0610A
Wavelength	1535nm±5nm	1535nm±5nm	1535nm±5nm	1535nm±5nm
Ranging Distance	≥3km	≥4km	≥5km	≥6km
Visibility	>6km	>8km	>8km	>10km
Laser divergence angle	≤0.5mrad	≤0.5mrad	≤0.5mrad	≤0.5mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)	1Hz-10Hz (adjustable)	1Hz-10Hz (adjustable)	1Hz-10Hz (adjustable)
Ranging accuracy	≤±2m (RMS)	≤±2m (RMS)	≤±2m (RMS)	≤±2m (RMS)
Accurate ranging ratio	≥98%	≥98%	≥98%	≥98%
Minimum range	≤20m	≤20m	≤20m	≤30m
Range resolution	≤30m	≤30m (Multi Targets)	≤30m (Multi Targets)	≤30m (Multi Targets)
Voltage supply	DC3~15V (Customizable)	DC9-16V (Customizable)	DC9-16V (Customizable)	DC9-16V (Customizable)
Weight	≤50g	≤55g	≤55g	≤70g
Power consumption	----- “Average ≤1.5W(@1Hz); Peak ≤5W” -----			
Dimension	≤53*37*24mm	≤55*41*26mm	≤55*41*26mm	≤72*45*35mm
Working temperature	-40-+60°C	-40-+60°C	-40-+60°C	-40-+60°C
Storage temperature	-50-+ 70°C	-50-+ 70°C	-50-+ 70°C	-50-+ 70°C
Communication interface	RS422,115200bps	RS422,115200bps	RS422,115200bps	RS422,115200bps

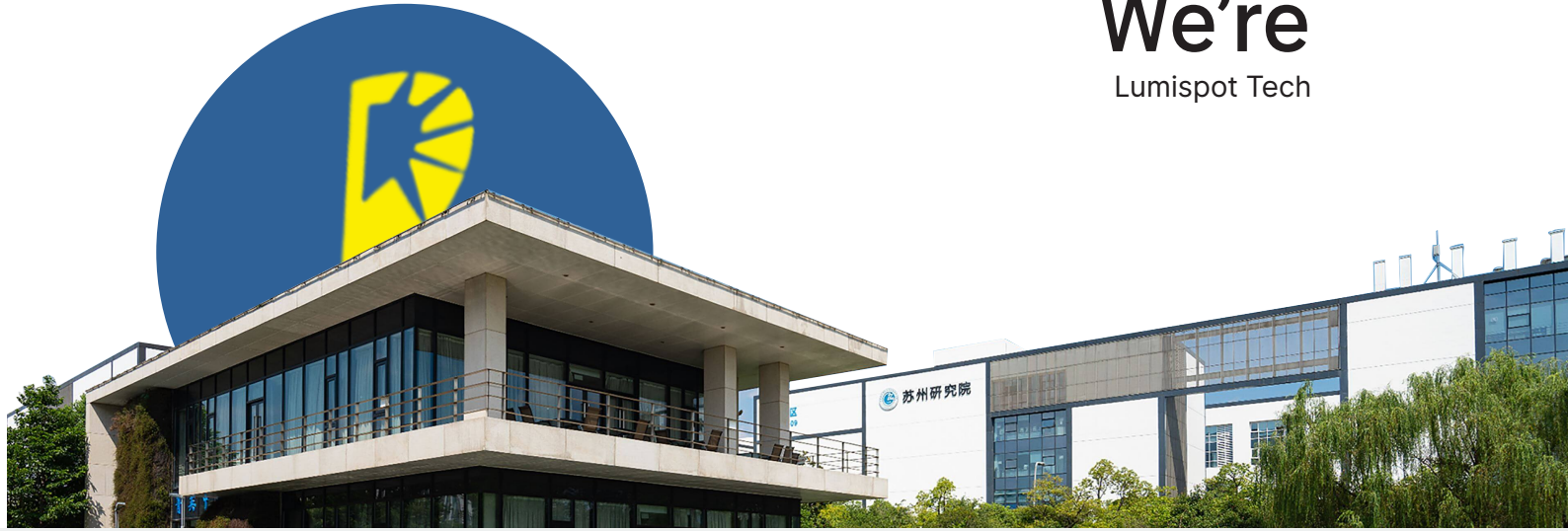
Specification	LSP-LRS-0810A	LSP-LRS-1010A	LSP-LRS-1210A
Wavelength	1535nm±5nm	1535nm±5nm	1535nm±5nm
Ranging Distance	≥8km	≥10km	≥12km
Visibility	>12km	>15km	>20km
Laser divergence angle	≤0.3mrad	≤0.3mrad	≤0.3mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)	1Hz-10Hz (adjustable)	1Hz-10Hz (adjustable)
Ranging accuracy	≤±2m (RMS)	≤ ±2m (RMS)	≤ ±3m (RMS)
Accurate ranging ratio	≥98%	≥98%	≥98%
Minimum range	≤30m	≤50m	≤50m
Range resolution	≤30m (Multi Targets)	≤30m (Multi Targets)	≤30m (Multi Targets)
Voltage supply	DC9-16V (Customizable)	DC9-16V (Customizable)	DC9-18V (Customizable)
Weight	≤120g	≤140g	≤240g
Power consumption	----- “Average ≤1.5W(@1Hz); Peak ≤5W” -----		
Dimension	≤80*47*59mm	≤83*68*46mm	≤100*60*70mm
Working temperature	-40-+60°C	-40-+60°C	-40-+60°C
Storage temperature	-50-+ 70°C	-50-+ 70°C	-50-+ 70°C
Communication interface	RS422,115200bps	RS422,115200bps	RS422,115200bps

Company Profile

About Lumispot

We're

Lumispot Tech



¥75M

Register Capital CNY

6+

Ph.D.

80%

Proportion of Talents

150+

Patents



Located in Suzhou Industrial Park, LumiSpot Technology Group is a leader in laser technology with a strong foundation, having a registered capital of CNY 74.97 million and a large office and production area of about 14,000 square meters. We have expanded our reach with subsidiaries in Beijing (Lumimetric), Wuxi, and Taizhou.

Our expertise lies in laser information technology, offering a wide range of products including laser diode, fiber lasers, solid-state lasers, ranging modules, and various vision inspection systems. Recognized for our innovation, we've been named a High Power Laser Engineering Center and have received numerous awards and national research funding.

Contact

Email : sales@lumispot.cn
Website: www.lumispot-tech.com

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- 2024 ●



**Illuminate Future
From Laser**

We aim to become the global leader in laser special information domain.

