

12km Laser rangefinder LRF Module



JIO-H1218X adopts the 1535nm eye-safe erbium glass laser module independently developed by Jioptik, which has the characteristics of low power consumption, small size, high precision.

Maximum measuring range: 12000m (2.3x2.3m NATO Target);18000m Max Range

Ranging accuracy $\pm 2m$

Measurement accuracy $\geq 98\%$

Weight $\leq 220g$

Features of JIO-H1220X Laser Rangefinder module

Safe and harmless to eyes

- Using 1535nm pump Q-switched erbium glass laser, safe for eyes.
- High reliability and long service life.

Easy to operate and secondary development

- Full duplex RS422 electrical interface, equipped with instruction set and communication protocol, convenient user secondary development.

Exchange optimization

- With its very small and ultra-light design and optimized power consumption, the STA-H1220X is ideal for a variety of handheld devices, weapon mounting applications, portable thermal imaging systems and lightweight sensor suites for use in UAVs or UGVs.

Large measuring range and high precision

- Maximum measuring range $\geq 18km$
- Measurement range of $2.3m \times 2.3m$ NATO Target $\geq 12km$
- Ranging accuracy $\pm 2m$. High precision, more accurate distance measurement results.
- Weight $\leq 220g$. Light weight and small size.

Product Introduction

The JIO-H1220X laser rangefinder consists of a laser, a transmitter-receiver optical system, a driver power supply board, an amplifier board and a main control board. The structural parts are made of aluminum alloy with oxidized surface and fixed with 4 M2.5 threaded holes. The product is mainly used for target distance measurement, suitable for UAV, thermal imaging, security equipment and other optoelectronic system integration, can realize the first and last target ranging, self-check information response, fault localization failure mode feedback and other functions, has a small size, light weight, high precision, easy to integrate, strong environmental adaptability and other characteristics.

12km LRF Module Parameters

Module	JIO-H1218X	
Operating wavelength	1.535nm	
Ranging capability	18000m	Maximum range
	≥15000m	Visibility ≥20km, 0.6 reflectivity Big Target
	≥12000m	Visibility ≥20km, 0.3 reflectivity for 2.3m × 2.3m NATO Target
Ranging capability (30% reflectivity, 10Km visibility)	≥6000m	1m × 1m Target
	≥4500m	1.7×0.5m Person target
	≥3500m	0.3×0.2m UAV target
Mini Range	≤80m	
Ranging accuracy	≤2m	
Ranging frequency	≥5Hz	
Accuracy rate	≥98%	
Divergence angle	≤0.4mrad	
Size	≤101×71×53mm(Without connector)	
Weight	≤220g	
Voltage	9V~15V	
Working temperature	-40℃~+60℃	
Storage temperature	-55℃~+70℃	

Note: All performance indicators and interfaces can be customized according to requirements

Size

