

# **SLY Series Laser Rangefinders**

Laser rangefinder is a kind of equipment to measure the distance of the target. It can measure the distance information of the target by detecting the return signal of the emitting laser. This series of products has mature technology and stable performance, which can be tested on a variety of static and dynamic targets, and can be equipped and used on a variety of platforms. Laser rangefinder is used to measure the range of the target. Its military application can be summarized into two categories: reconnaissance and fire control. Reconnaissance includes individual reconnaissance, sea base, road base, air base target detection and terrain detection. Fire control is mainly used in land air defense, sea combat, short-range fire control equipment precision attack, as well as ship and airborne fire control system in long-range ranging and target attack. According to different combat platforms, the laser range finder can be applied to the optoelectronic reconnaissance system of different platforms such as ground vehicle, light portable, air artillery, missile defense, airborne, shipborne and space detection as a supporting ranging system. The rangefinder products are characterized by independent control of core devices, small size and light weight, mass production, stable performance and easy operation.

### 1. 3-12km Laser Rangefinders (1535nm)

This series rangefinder is based on 1535 nm erbium-doped glass lasers, which are completely independently developed and protected by patents and intellectual property rights, and have now reached Class I human eye safety standards. The product is a single-pulse rangefinder that features small size, light weight, high-cost performance and adaptability to multiple platforms. The main functions are: single pulse range and continuous range, distance selection, front and rear target display and self-test function, and continuous range frequency adjustable from 1-10Hz. The series offers different products to meet different range requirements (3km to 12km).

Part number	SLY-0310MS-01	SLY-0410A	SLY-0510A	SLY-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"	"Average ≤1.5W(@1Hz); Peak ≤5W"	"Average ≤1.5W(@1Hz); Peak ≤5W"	"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
Part number	SLY-0810A	SLY-1010A	SLY-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"	"Average ≤1.5W(@1Hz); Peak ≤5W"	"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	

### 1.1 Laser Rangefinders-1535nm, SLY-0310MS-01

#### Features:

• Small size and light weight

Storage temperature

Communication

interface

- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3\*2.3m) over 3km

-50-+ 70°C

115200bps

RS422,

• Developed based on 1535nm Er: Glass Laser

### Applications:

- Laser ranging
- Targeting

Part number

Photoelectric reconnaissance



-50-+ 70°C

RS422,

115200bps

#### SLY-0310MS-01

-50-+ 70°C

RS422,

115200bps



Wavelength	1535nm±5nm
	"a. Single ranging and continuous ranging
Main function	<ul> <li>Range gate, forward and aft target indication</li> </ul>
	c. self-checking function"
Operating range	"≥3,000m"
	(Visibility > 6km; objective: 2.3*2.3m; reflectivity > 30%; humidity≤80%)"
Laser divergence angle	≤0.5mrad
Continuous ranging	1Hz-10Hz (adjustable)
frequency	
Ranging accuracy	≤±2m (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤20m
Range resolution	≤30m
Voltage supply	DC3~15V (Customizable)
Weight	≤50g
Power consumption	"Average ≤1.5W(@1Hz); Peak ≤5W"
Dimension	≤53*37*24mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422,115200bps



# 1.2 Laser Rangefinders-1535nm, SLY-0410A

#### Features:

- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3m\*2.3m) over 4km
- Developed based on 1535nm Er: Glass Laser

#### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance



Parameters	SLY-0410A
Wavelength	1535nm±5nm

Main function	<ul><li>"a. Single ranging and continuous ranging</li><li>b. Range gate, forward and aft target indication</li><li>c. self-checking function"</li></ul>
Operating range	"≥4,000m" (Visibility>8km; objective:2.3*2.3m; reflectivity>30%; humidity≤80%)"
Laser divergence angle	≤0.5mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)
Ranging accuracy	≤±2m (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤20m
Range resolution	≤30m (Multi Targets)
Voltage supply	DC9-16V (Customizable)
Weight	≤55g
Power consumption	"Average ≤1.5W(@1Hz); Peak ≤5W"
Dimension	≤55*41*26mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422, 115200bps





# 1.3 Laser Rangefinders-1535nm, SLY-0510A

### Features:

- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3m\*2.3m) over 5km
- Developed based on 1535nm Er: Glass Laser

### Applications:

- Laser ranging
- Targeting
- Photoelectric reconnaissance



Parameters	SLY-5410A
Wavelength	1535nm±5nm
Main function	<ul> <li>"a. Single ranging and continuous ranging</li> <li>b. Range gate, forward and aft target indication</li> <li>c. self-checking function"</li> </ul>



Operating range	"≥5,000m" (Visibility>8km; objective:2.3*2.3m; reflectivity>30%; humidity≤80%)"
Laser divergence angle	≤0.5mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)
Ranging accuracy	≤±2m (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤20m
Range resolution	≤30m (Multi Targets)
Voltage supply	DC9-16V (Customizable)
Weight	≤55g
Power consumption	"Average ≤1.5W(@1Hz); Peak ≤5W"
Dimension	≤55*41*26mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422, 115200bps



#### 1.4 Laser Rangefinders-1535nm, SLY-0610A

#### Features:

- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3\*2.3m) over 6km
- Developed based on 1535nm Er: Glass Laser

#### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance



Parameters	SLY-0610A
Wavelength	1535nm±5nm
Main function	"a. Single ranging and continuous ranging b. Range gate, forward and aft target indication c. self-checking function"
Operating range	"≥6,000m" (Visibility > 10km; objective: 2.3*2.3m; reflectivity > 30%;

	humidity≤80%)"
Laser divergence angle	≤0.5mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)
Ranging accuracy	≤±2m (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤30m
Range resolution	≤30m (Multi Targets)
Voltage supply	DC9-16V (Customizable)
Weight	≤70g
Power consumption	"Average ≤1.5W;(@1Hz) Peak ≤5W"
Dimension	≤72*45*35mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422, 115200bps





# 1.5 Laser Rangefinders-1535nm, SLY-0810A

### Features:

- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3\*2.3km) over 8km
- Developed based on 1535nm Er: Glass Laser

### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance



Part number	SLY-0810A
Wavelength	1535nm±5nm
Main function	<ul><li>"a. Single ranging and continuous ranging</li><li>b. Range gate, forward and aft target indication</li><li>c. self-checking function"</li></ul>
Operating range	"≥8,000m" (Visibility > 12km; objective: 2.3*2.3m; reflectivity ≥ 30%;

	humidity≤80%)"
Laser divergence angle	≤0.3mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)
Ranging accuracy	≤±2m (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤30m
Range resolution	≤30m (Multi Targets)
Voltage supply	DC9-16V (Customizable)
Weight	≤120g
Power consumption	"Average ≤1.5W (@1Hz); Peak ≤5W"
Dimension	≤80*47*59mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422, 115200bps

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### Features:

- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3\*2.3m) over 10km
- Developed based on 1535nm Er: Glass Laser

#### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance



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Parameters	SLY-1010A
Wavelength	1535nm±5nm
Main function	<ul><li>"a. Single ranging and continuous ranging</li><li>b. Range gate, forward and aft target indication</li><li>c. self-checking function"</li></ul>
Operating range	"≥10,000m" (Visibility > 15km; objective: 2.3*2.3m; reflectivity > 30%; humidity≤80%)"



Laser divergence angle	≤0.3mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)
Ranging accuracy	$\leq \pm 2m$ (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤50m
Range resolution	≤30m (Multi Targets)
Voltage supply	DC9-16V (Customizable)
Weight	≤140g
Power consumption	"Average ≤1.5W(@1Hz) ; Peak ≤5W"
Dimension	≤83*68*46mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422, 115200bps



#### 1.7 Laser Rangefinders-1535nm, SLY-1210A

#### Features:

- Small size and light weight
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- •

Distance



measurement for vehicle (2.3\*2.3m) over 12km
 Developed based on 1535nm Er: Glass Laser

#### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance

Parameters	SLY-1210A
Wavelength	1535nm±5nm
	"a. Single ranging and continuous ranging
Main function	b. Range gate, forward and aft target indication
	c. self-checking function"
	"≥12,000m"
Operating range	(Visibility > 20km; objective: 2.3*2.3m; reflectivity > 30%;
	humidity≤80%)"



Laser divergence angle	≤0.3mrad
Continuous ranging frequency	1Hz-10Hz (adjustable)
Ranging accuracy	$\leq \pm 3m$ (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤50m
Range resolution	≤30m (Multi Targets)
Voltage supply	DC9-18V (Customizable)
Weight	≤240g
Power consumption	"Average ≤1.5W (@1Hz); Peak ≤5W"
Dimension	≤100*60*70mm
Working temperature	-40-+60°C
Storage temperature	-50-+ 70°C
Communication interface	RS422, 115200bps



### 2. 15km, 20km (1570nm) Laser Rangefinders

This series rangefinder is based on the 1570nm OPO laser developed completely in-house, protected by patents and intellectual property rights, and has now met the Class I human eye safety standard. The product is a single pulse rangefinder with, cost-effective and adaptable to a variety of platforms. The main functions are: single pulse rangefinder and continuous rangefinder, distance selection, front and rear target display and self-test function, continuous rangefinder frequency adjustable from 1-5Hz. The average power consumption of the product is less than 50W and the peak power consumption is less than 100W.

Part number	SLY-1505	SLY-2005
Wavelength	1570nm±5nm	1570nm±5nm
Ranging distance	≥15km	≥20km
Visibility	>20km	>25km
Laser divergence angle	≤1mrad	≤1mrad
Continuous ranging frequency	1Hz-5Hz (adjustable)	1Hz-5Hz (adjustable)
Ranging accuracy	≤5m (RMS)	≤5m (RMS)
Accurate ranging ratio	≥98%	≥98%
Minimum range	≤200m	≤200m
Range resolution	≤50m (Multi Targets)	≤50m
Voltage supply	DC 18V~36V	DC 18V~36V
Weight	≤1,300g	≤2,000g
Power consumption	"Average ≤50W; Peak ≤100W"	"Average ≤50W; Peak ≤100W"
Dimension	≤180*64*108mm	≤207*125*80mm

Working temperature	-40-+65°C	-40-+65°C
Storage temperature	-55-+ 70°C	-55-+ 70°C
Communication interface	RS422, 115200bps	RS422, 115200bps

### 2.1 Laser Rangefinders-1570nm, SLY-1505

#### Features:

- High reliability
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle (2.3\*2.3m) over 15km
- Developed based on 1570nm OPO laser

#### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance



Parameters	SLY-1505
Wavelength	1570nm±5nm
Main function	<ul><li>"a. Single ranging and continuous ranging</li><li>b. Range gate, forward and aft target indication</li><li>c. self-checking function"</li></ul>
Operating range	"For vehicle (2.3*2.3m): ≥15,000m" "For Human (1.75*0.75m): ≥8,000m" For big target (Building): ≥20,000m)" (Visibility > 20km; objective: 2.3*2.3m; reflectivity ≥ 30%; humidity≤80%)"
Laser divergence angle	≤1mrad
Continuous ranging	1Hz-5Hz (adjustable)
frequency	
Ranging accuracy	≤5m (RMS)
Accurate ranging ratio	≥98%
Minimum range	≤200m
Range resolution	≤50m (Multi Targets)
Voltage supply	DC 18V~36V
Weight	≤1,300g
Power consumption	"Average ≤50W; Peak ≤100W"
Dimension	≤180*64*108mm
Working temperature	-40-+65°C
Storage temperature	-55-+ 70°C
Communication interface	RS422, 115200bps



# 2.2 Laser Rangefinders-1570nm, SLY-2005

#### Features:

- High reliability
- Class I human eye safety standards
- Stable performance and easy to use
- Provide customization service
- Distance measurement for vehicle over 20km
- Developed based on 1570nm OPO laser

### **Applications:**

- Laser ranging
- Targeting
- Photoelectric reconnaissance



Part number	SLY-2005	
Wavelength	1570nm±5nm	
Main function	<ul> <li>"a. Single ranging and continuous ranging</li> <li>b. Range gate, forward and aft target indication</li> <li>c. self-checking function"</li> </ul>	
Operating range	"For vehicle (2.3*2.3m): ≥20,000m" "For Human (1.75*0.75m): ≥9,000m" For big target (Building): ≥25,000m)" (Visibility > 25km; objective: 2.3*2.3m; reflectivity > 30%; humidity≤80%)"	
Laser divergence angle	≤1mrad	
Continuous ranging frequency	1Hz-5Hz (adjustable)	
Ranging accuracy	≤5m (RMS)	
Accurate ranging ratio	≥98%	
Minimum range	≤200m	
Range resolution	≤50m	
Voltage supply	DC 18V~36V	
Weight	≤2,000g	
Power consumption	"Average ≤50W; Peak ≤100W"	
Dimension	≤207*125*80mm	
Working temperature	-40-+65°C	
Storage temperature	-55-+ 70°C	
Communication interface	RS422, 115200bps	





# **STDY Series Laser Rangefinders**



STDY-DA and STDY-YA series laser rangefinder is compact in design and easy to integrate. The working light source is 905nm and 1550nm semiconductor laser diode. The features are long service life and low power consumption. And it is widely used in the airborne pod, vehicle turntable, handheld observation instrument, altimeter, telescope, gun sight, gun sight project and other photoelectric equipment, to meet aviation, ship, vehicle, police, railway, electric power, communication, geology, construction, fire protection, forestry, outdoor applications and other applications.

#### 1. STDY-DA1xxx series



NA LL		
Model	STDY-DA1000	STDY-DA1500
Wavelength	905nm	
Range	20m~1000m	20m~1500m
Ranging accuracy	≤±2m	
Ranging frequency	1Hz	
Accurate rate	≥98%	
Acceptance aperture	17mm	
Connector	TTL	
Supply voltage	5V±0.5V	
Power consumption	≤2W	
Dimension	45mmx44mmx21mm	
Weight	≤35g	
Operating temperature	<b>-40</b> °C <b>~+55</b> °C	

## 2. STDY-DA2xxx series



Model	STDY-DA2000	STDY-DA2500
Wavelength	905nm	
Range	20m~2000m	30m~2500m
Ranging accuracy	≤ <u>+</u>	2m
Ranging frequency	11	lz
Accurate rate	≥98%	
Acceptance aperture	17mm	
Connector	TTL	
Supply voltage	5V±0.5V	
Power consumption	≤2W	
Dimension	50.5mmx37mmx22mm	
Weight	≤45g	
Operating temperature	-40°C~+55°C	

## 3. STDY-DA3xxx series



Model	STDY-DA3000	STDY-DA3500
Wavelength	905nm	
Range	20m~3000m	30m~3500m
Ranging accuracy	≤ <u>+</u> ;	2m
Ranging frequency	11	Ηz
Accurate rate	≥98%	
Acceptance aperture	24mm	
Connector	TTL	
Supply voltage	5V±0.5V	
Power consumption	≤2W	
Dimension	50mmx49.5mmx29mm	
Weight	≤65g	
Operating temperature	-40℃~+55℃	



4. STDY-YA2xxx series



Model	STDY-YA2000	STDY-YA2500	
Wavelength	1550nm		
Range	30m~2000m	30m~2500m	
Ranging accuracy	≤±2m		
Ranging frequency	11	Ηz	
Accurate rate	≥98%		
Acceptance aperture	17mm		
Connector	TTL		
Supply voltage	5V±0	5V±0.5V	
Power consumption	≤3W		
Dimension	51mmx37mmx22mm		
Weight	≤45g		
Operating temperature	-40℃~+55℃		

#### 5. STDY-YA2xxxA series



Model	STDY-YA2000A	STDY-YA2500A
Wavelength	1550nm	
Range	30m~2000m	30m~2500m
Ranging accuracy	≤±2m	
Ranging frequency	requency 1Hz	
Accurate rate	≥98	3%
Acceptance aperture	eptance aperture 17mm	
Connector TTL		TL

Supply voltage	5V±0.5V	
Power consumption	≤3W	
Dimension	50.5mmx45.5mmx29mm	
Weight	≤45g	
Operating temperature	<b>-40</b> ℃ <b>~+55</b> ℃	

## 6. STDY-YA3000 and STDY-YA3000A



Model	STDY-YA3000	STDY-YA3000A	
Wavelength	1550nm		
Range	30m-3000m		
Ranging accuracy	≤±;	2m	
Ranging frequency	11	lz	
Accurate rate	≥98%		
Acceptance aperture	24mm		
Connector	TTL		
Supply voltage	5V±0	0.5V	
Power consumption	≤3W		
Dimension	51mmx50mmx29mm 51mmx55mmx40		
Weight	≤65g		
Operating temperature	-40°C~+55°C		



### STDY-DYC Series Small & Medium-sized Laser Rangefinder

STDY-DYC series of small and medium-sized laser rangefinders are compact, easy to install and operate. The working light source is a human eye safe band solid state laser. The features are long service life and low power consumption. It can provide deep customization according to different needs. And it is widely used in the airborne pod, vehicle turntable, handheld observation instrument, altimeter, telescope, gun sight, gun sight project and other photoelectric equipment, to meet aviation, ship, vehicle, police, railway, electric power, communication, geology, construction, fire protection, forestry, outdoor applications and other applications.

#### 1. STDY-DYCx000 series



STDY-DYC3000

STDY-DYC4000

STDY-DYC5000

Model	STDY-DYC3000	STDY-DYC4000	STDY-DYC5000
Wavelength	1535nm	1535nm	1535nm
Range	15m~3000m	50m~4000m	50m~5000m
Ranging accuracy	≤±2m	≤±2m	≤±2m
Ranging frequency	≥1Hz	≥1Hz	≥1Hz
Accurate rate	≥98%	≥98%	≥98%
Divergence angle	≤0.65mrad	≤0.6mrad	≤0.7mrad
Acceptance aperture	18mm	21mm	25mm
Connector	TTL	RS422	RS422
Supply voltage	12V±2V	12V±2V	12V±2V
Power consumption	≤2W	≤3W	≤3W
Dimension	50mmx36mmx24mm	57mmx50mmx30mm	61mmx43mmx32mm
Weight	≤56g	≤75g	≤85g
Operating temperature	<b>-40°C∼+55°</b> C	<b>-40°C∼+55°</b> C	<b>-40°C∼+55°</b> C





#### STDY-DYC8000/9000

Model	STDY-DYC6000	STDY-DYC7000	STDY-DYC8000	STDY-DYC9000
Wavelength	1535nm	1535nm	1535nm	1535nm
Range	20m~6000m	20m~7000m	80m~8000m	80m~9000m
Ranging accuracy	≤±2m	≤±2m	≤±2m	≤±2m
Ranging frequency	≥1Hz	≥1Hz	≥1Hz	≥1Hz

Accurate rate	≥98%	≥98%	≥98%	≥98%
Divergence angle	≤0.3mrad	≤0.3mrad	≤0.5mrad	≤0.5mrad
Acceptance aperture	34mm	34mm	42mm	42mm
Connector	RS422	RS422	RS422	RS422
Supply voltage	7.5V±1.5V	7.5V±1.5V	12V±2V	12V±2V
Power consumption	≤2W	≤2W	≤3W	≤3W
Dimension	80x59x45mm	80x59x45mm	86x66x45mm	86x66x45mm
Weight	≤120g	≤120g	≤145g	≤145g
Operating temperature	<b>-40℃~+55℃</b>	<b>-40°C∼+55°</b> C	<b>-40°C~+55°</b> ℃	<b>-40°C∼+55°</b> C

## 2. STDY-DYCx000A series



Model	STDY-DYC6000A	STDY-DYC7000A	
Wavelength	1535nm		
Range	20m~6000m 20m~7000m		
Ranging accuracy	≤ <u>+</u> ;	2m	
Ranging frequency	11	Ηz	
Accurate rate	≥98%		
Divergence angle	≤0.3mrad		
Acceptance aperture	34mm		
Connector	TTL		
Supply voltage	7.5V <del>1</del>	±1.5V	
Power consumption	≤2W		
Dimension	81mmx57.5mmx41.5mm		
Weight	≤125g		
Operating temperature	-40℃~+55℃		

## 3. STDY-DYC6000B



Model	STDY-DYC6000B
Wavelength	1535nm
Range	50m~6000m
Ranging accuracy	≤±2m
Ranging frequency	1Hz
Accurate rate	≥98%
Divergence angle	≤0.7mrad
Acceptance aperture	34mm
Connector	RS422
Supply voltage	28V±6V
Power consumption	≤3W
Dimension	87mmx52mmx41mm
Weight	≤195g
Operating temperature	-40℃~+55℃

# 4. STDY-DYC100X and STDY-DYC100XA



Model	STDY-DYC100X	STDY-DYC100XA	
Wavelength	1535nm		
Range	50m~10000m 80m~10000r		
Ranging accuracy	≤ <u>+</u>	2m	
Ranging frequency	11	Ηz	
Accurate rate	≥98%		
Divergence angle	≤0.5mrad		
Acceptance aperture	48mm		
Connector	RS	422	
Supply voltage	28V	±6V	
Power consumption	≤4W		
Dimension	107mmx84mmx56mm		
Weight	≤230g ≤290g		
Operating temperature	-40℃~+55℃		

# 5. STDY-DYC series medium range finder

STDY-DYC series of medium range finders are compact and easy to install and operate. The working light source is a human eye safe band solid state laser. The features of it are long service life and low power consumption. It can provide deep customization according to different needs. And it is widely used in the airborne pod, vehicle turntable, handheld observation instrument, altimeter, telescope, gun sight, gun sight project and other photoelectric equipment, to meet aviation, ship, vehicle, police, railway, electric power, communication, geology, construction, fire protection, forestry, outdoor applications and other applications.





STDY-DYC250X

# STDY-DYC300X

Model	STDY-DYC250X	STDY-DYC300X	
Wavelength	1535nm		
Range	300m~25000m 300m~3000		
Ranging accuracy	≤ <u>+</u> :	5m	
Ranging frequency	11	Ηz	
Accurate rate	≥98%		
Divergence angle	≤0.4mrad		
Acceptance aperture	48mm 65mm		
Connector	RS4	422	
Supply voltage	28V	±6V	
Power consumption	≤1(	W	
Dimension	245mmx113mmx85mm	133mmx122mmx76mm	
Weight	≤2100g	≤1000g	
Operating temperature	-40℃~+55℃		



# **STDY-DYB Series Small Laser Photometer**

STDY-DYB series of small laser photometer is pumped by semiconductor, which can transmit laser pulse and receive laser echo to obtain the distance information of the measured target. It emits laser pulses in a specified precise coding or external synchronous way to provide semi-active guidance laser spots for laser guided weapons. The product is suitable for ground reconnaissance equipment, vehicle turret, ship turret, helicopter and UAV photoelectric load.



STDY-DYB025



STDY-DYB060





STDY-DYB100

Model	STDY-DYB025	STDY-DYB040	STDY-DYB060	STDY-DYB100
Wavelength	1064nm	1064nm	1064nm	1064nm
Averag energy	≥25mJ	≥40mJ	≥60mJ	≥100mJ
Energy instability	≤10%	≤10%	≤10%	≤10%
Divergence angle	≤0.5mrad	≤0.4mrad	≤0.4mrad	≤0.25mrad
Optical axis stability	≤0.05mrad	≤0.05mrad	≤0.05mrad	≤0.05mrad
Range	100m~5000m	300m~5000m	300m~8000m	300m~20000m
Irradiation distance	≥2000m	≥4000m	≥5000m	≥13000m
Exposure frequency	20Hz	20Hz	20Hz	20Hz
Precise frequency code	45ms~56ms	45ms~56ms	45ms~56ms	45ms~56ms
Coding accuracy	±2.5us	±2.5us	±2.5us	±2.5us
Pulse width	15ns±5ns	15ns±5ns	15ns±5ns	15ns±5ns
Supply voltage	28V±6V	28V±6V	28V±6V	28V
Weight	≤450g	≤1000g	≤1500g	≤2800g
Dimension	91x6851.5mm	112x62x57mm	180x100x78mm	239x116x81mm
Operating temperature	<b>-40°℃~+55°</b> ℃	<b>-40°C∼+55°</b> C	<b>-40℃~+55℃</b>	<b>-40°C~+55°</b> C
Connector	RS422	RS422	RS422	RS422

# **STJ Series Laser Rangefinders**

# 1. Diode Laser Rangefinder OEM Modules

The diode laser rangefinder module has the characteristics of small size, light weight, low power consumption, high performance, and easy integration. It is widely integrated in various equipment and optoelectronic systems.



- Semiconductor eye-safe laser.
- Accurate measurement and good repeatability.
- Small size and light weight.
- High reliability.

#### **Technical specifications**

reennear speemeations			
Part number	STJ-RFS-032	STJ-RFS-028	STJ-RFS-6558
Wavelength	Eye-safe laser	Eye-safe laser	Eye-safe laser
Maximum range	Vehicle: 2km	Vehicle: 4.5km	Vehicle: 4km
Maximum range	Human: 1km	Big target: 8km	Human: 2km
Minimum range	50m	100m	100m
Ranging accuracy	±5m	±5m	±5m
Repeat frequency	≥0.3Hz	≥0.3Hz	≥0.3Hz
Accurate rate	≥95%	≥95%	≥95%
Ranging logic	With the first and last t arget output function	With the first and last targ et output function	With the first and last t arget output function
Size(L×W×H)	≤65×45×30mm	≤120×100×52mm	≤110×100×50mm
Weight	≤60g	≤350g	≤350g
Operating temperature	<b>-40°</b> ℃~ <b>+60°</b> ℃	<b>-40</b> °C∼ <b>+60</b> °C	<b>-40</b> ℃~+60℃
Storage temperature	<b>-55℃~+70℃</b>	<b>-55</b> ℃~ <b>+70</b> ℃	<b>-55</b> ℃~ <b>+70</b> ℃

# 2. High-frequency Laser Rangefinder OEM Modules

STJ-RFS-376 high-frequency laser ranging module uses diode pumped laser as the light source, which can achieve high repetition frequency laser output, used to accurately and reliably measure the distance.

The main application areas include: shipboard, airborne, vehicle-mounted, shore-based photoelectric fire control system, photoelectric reconnaissance system, photoelectric monitoring system, photoelectric measurement system.





- Semiconductor pumped eye-safe laser.
- Repetition frequency can reach 20Hz.
- Long range and high reliability.

#### **Technical Specifications**

5
STJ-RFS-376
1.57µm
300m $\sim$ 20km (large targets under good weather conditions)
15km for 3*5m target
±5m
1~20Hz
1Hz working mode: continuous operation.
5Hz working mode: continuous working for 10 minutes, cooling for 1 minute.
20Hz working mode: continuous working for 1 minute and cooling for 1 minut
е.
≤230×150×130mm
≤2.0Kg
-40°C ∼+60°C
High repetition frequency, long working distance, high measurement accurac
y, high reliability and strong anti-interference ability
Photoelectric reconnaissance system, photoelectric monitoring system, pho
toelectric measuring system

## 3. Erbium Glass Laser Ranging OEM Modules

STJ-RFS-6271 series erbium glass laser ranging modules use an erbium-doped glass laser as a light source, which can achieve a low-gain laser output and is used to accurately measure the target. They are mainly used for distance measurement of medium and long-range targets in the applications areas such as photoelectric reconnaissance system, photoelectric surveillance system.

- Eye-safe laser.
- Small size, light weight, high accuracy, high reliability and strong anti-interference ability



#### **Technical Specifications**

Part number	STJ-RFS-6271-20	STJ-RFS-6271-30	STJ-RFS-6271-40
Wavelength	1.54µm	1.54µm	1.54µm
Maximum range	≥12km	≥14km	≥16km
Ranging accuracy	±2m	±2m	±2m
Repeat frequency	≥0.5Hz	≥0.5Hz	≥0.5Hz
Size	≤100×50×45mm	≤100×61×48mm	≤112×72×56mm
Weight	≤135g	≤160g	≤200g
Operating temperature	-40°C∼+60°C		



# 4. Fiber Laser Rangefinder OEM Modules

STJ-JIR-603x series fiber laser ranging modules use rare earth-doped glass fiber as the gain medium to output eye-safe laser, which is small in size, light in weight, high in reliability and easy for system integration. Mainly used in photoelectric reconnaissance, photoelectric fire control, photoelectric monitoring, photoelectric measurement and other fields.

- Eye-safe laser.
- Small size and light weight.
- Fast heat dissipation and low loss.
- Strong environmental adaptability.



	STJ-RFS-6030A	STJ-RFS-6030B	STJ-RFS-6031	STJ-RFS-6032
Wavelength	1550±20nm	1550±20nm	1550±20nm	1550±20nm
Minimum range	50m	50m	50m	50m
Maximum rango	≥15km	≥3km	≥8km	≥6km
Maximum range	(Ship: 20×70m)	(UAV: 0.3×0.3m)	(Vehicle: 2.3×2.3m)	(Vehicle: 2.3×2.3m)
Divergence angle	0.6mrad	0.3±0.1mrad	0.3±0.1mrad	0.3±0.1mrad
Repeat frequency	1Hz	5Hz	1Hz	1Hz
Ranging accuracy	±5m	±2m	±2m	±2m
Accurate rate	≥98%	≥98%	≥98%	≥98%
False alarm rate	≤2%	≤2%	≤2%	≤2%
Ranging logic	With the first and las t target output functi on	With the first an d last target outp ut function	With the first and la st target output fun ction	With the first and la st target output fun ction
Size(L×W×H)	95×51×64mm	95×51×64mm	91×49×45mm	91×53×42mm
Weight	≤200g	≤200g	≤160g	≤150g
Operating temperature	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C
Storage temperature	<b>-50°</b> ℃~+70°℃	-50°C~+70°C	<b>-50°</b> ℃~ <b>+70°</b> ℃	-50°C∼+70°C

# 5. STJ-JIR-6244B Handheld Multifunctional Laser Rangefinder

STJ-JIR-6244B Multi-function Laser Rangefinder is mainly used for long distance observation and laser range finding, with the function of azimuth and pitch angle measurement, northing and GPS/Beidou positioning.



- Binocular observation
- Laser ranging
- Electronic compass
- GPS/Beidou positioning



## Data output

**Device List** 

No.	Name	Qty	Remarks
1	Multi-functional laser range finder	1	1
2	Standby Battery	4	18650 rechargeable battery
3	Charger	1	
4	Communication cable	1	1

### **Technical Specifications:**

- (1) Laser Rangefinder
- Wavelength: 1570±20 nm
- Range capability: 100m~10km
- Ranging accuracy: ±5m
- Magnification: 6×
- Field of view: 6°
- (2) Electronic compass
- Azimuth accuracy: 1°
- Elevation accuracy: 1°
- (3) GPS: Locating accuracy: <10m
- (4) Data output interface: RS422
- (5) Power: Built-in four 18650 batteries or external DC 14.8V~16.8V power
- (6) Working temperature: -40°C~60°C
- (7) Size and Weight:  $\leq 226$ mm(L)×206mm(W)×95mm(H),  $\leq 1.8$ kg

# 6. STJ-JIR-6702 Portable Laser Irradiator

As a portable multi-functional laser target indication system, it can complete the target reconnaissance through TV, infrared, positioning, angle measurement, distance measurement and other multi-sensor, report the reconnaissance information through the information system, accept various control methods to start laser irradiation, send coded laser pulses to the target, and cooperate with semi-autonomous laser guidance weapons to complete the accurate target strike.

- Ranging and coding the target
- Visual observation of the target by uncooled infrared components or visible light (optional)
- It has external control function of upper computer.



# **Technical Specifications**

(1) Laser ranging

• Working wavelength: 1.064 μm.

- Distance measurement capability: under the condition of 10km visibility, the distance of 4.6×2.3m tank is ≥ 5km. The distance to large target (5×5m) is ≥ 8km.
- (2) Laser irradiation
- Working wavelength: 1.064 μm.
- Repetition frequency: 1Hz-25Hz optional.
- Short period irradiation: one irradiation duration  $\geq$  17s, interval  $\leq$  10s, continuous 8 cycles.
- Long period irradiation: one irradiation duration ≥ 47s, interval ≤ 40s, two consecutive cycles.
- (3) Uncooled infrared range

The maximum detection distance of  $4.6 \times 2.3$ m target is  $\ge 4500$ m, and the maximum recognition distance is  $\ge 2500$ m.

(4) Weight: laser irradiator  $\leq$  6.0kg, thermal imager  $\leq$  2.0kg.

- (5) Boundary dimension
- Laser irradiator: ≤ 330mm×300mm×130mm.
- Thermal imager: ≤ 340mm×160mm×160mm.

# 7. STLRF-6243F/6244F Laser Rangefinder

STLRF-6243F/6244F Laser Rangefinder is widely used for Patrol & reconnaissance; Engineering exploration; Surveying and mapping.

#### Features:

- High accuracy range finding
- Easy operation
- Simultaneous multiple targets measurement
- Small size and low light

#### **Technical Specifications:**



Model	STJIR-6243F	STJIR-6244F
Wavelength	1.55 µm (eye safe)	1.55µm (eye safe)
Aiming channel	CCD	CCD
Detector	APD	APD
Ranging capability (km)	Against big target: 21km Against 2.3*2.3 : 12km	Against big target: 12km Against 2.3*2.3 : 8km
Distance accuracy	±3m	±3m
Repetition rate	1Hz	1Hz
Divergence angle	≤0.3mrad	≤0.3mrad
Eyepiece adjust range	±3Diopter	±3Diopter
Impact	30g	30g
Photo/Video	Yes	Yes
Operation temperature	-30°C~60°C	-30°C~60°C
Power supply	12V battery	12V battery
Interface	RS422	RS422
Size	≤215×150×75 (mm)	≤200×150×65 (mm)
Weight	≤1.5Kg	≤1.0Kg



Positioning (Optional)	10m	10m
Angle measurement / height measurement (Optional)	0.3°/10m	0.3°/10m
Tripod (Optional)	High range:0.5~1.5m Bearing:5Kg	High range:0.5~1.5m Bearing:5Kg

# 8. STJ-IRC-36 Uncooled Portable & Long-Range Multifunction Binoculars

Based on years of actual combat application experience and continuous improvement, we have successfully developed the STJ-IRC-36, a portable, multifunctional, long-range binocular system that help operators observe the battlefield, and investigate target information under all weather conditions, observe shooting effects, etc., provides powerful information support for combat units.

#### 24/7 Observation & Target Location:

• 2 observation channels: - Thermal

- Color TV

#### **Multifunction:**

- GPS positioning
- Take photo / Video recording
- Electronic compass
- Target ranging and location computation

#### **Easy Operation:**

- Ergonomic design
- Easy Operation

#### Multimedia & Connectivity:

- Image/ Video Storage
- Fast data Hand Over
- Standard & legacy interfaces

#### **High Precision & HD:**

- Ranging accuracy: ± 2m
- Positioning accuracy: ≤10m
- Orientation accuracy: ≤0.5°
- HD OLED Display

#### **Technical Specifications:**

Uncooled Thermal Channel	
Field of View	WFoV: 6°x4.5°
Sensor resolution	640x512
Color Day Channel	
WFoV	3°x2.2°
Resolution	1920 x 1080
Power	
Battery	Rechargeable
Autonomy	≥ 6h
Interfaces	
Video Output	PAL analog
Remote control	RS232
Weight	<1.8kg (including battery)
Other Features	GPS, Electronic Compass
Laser rangefinder	≥8km
Advanced Image Processing	Image Stabilization, Continuous eZoom x1-x4



