

1064nm Co-aperture Laser Target Designator

SKU :LDR1064D

OVERVIEW

Based on the principle of laser irradiation, combined with the optical characteristics of the transmitting system, the fully reflective co-aperture laser target design is integrated, and the advanced design of sharing one system for laser receiving and transmitting makes the whole laser target designation system more stable and reliable, with high energy concentration, compact structure and light weight to better meet the actual application requirements. Open frame OEM modules and various configurations of LRUs (line replaceable units) are available.



TECHNICAL SPECIFICATIONS

Laser wavelength	1064nm				
Laser energy	≥20mJ	≥40mJ	≥60mJ	≥80mJ	≥120mJ
Start time	Ready to use				
Pulse width	10ns~20ns				
Beam dispersion angle	<0.4mrad	<0.3mrad	<0.3mrad	<0.3mrad	<0.3mrad
Energy fluctuation	±8%				
Range	200m~10000m	200m~20000m	200m~30000m	200m~40000m	200m~50000m
Range accuracy	±2m				
Ranging frequency	1Hz / 5Hz/mark				
Encoding accuracy	≤±0.2us				
Illumination frequency (fundamental frequency)	20Hz	20Hz	20Hz	20Hz	20Hz
★Average power consumption	≤20W	≤40W	≤60W	≤80W	≤120W
★Weight	≤625g	≤730g	≤845g	≤1050g	≤1565g
★Dimension (mm)	≤112×79×76	131×81×78	≤148×83×77	≤168×95×79	≤193×116×78
Illumination code	With the ability to load 1024 sets of pre-set codes and above (expandable pseudo-random code function)				

Illumination time	An irradiation time of not less than 20s, with an interval of 10s, for 8 consecutive irradiation cycles: An irradiation time of not less than 60s, interval 60s, 2 consecutive irradiation cycles.
Electrical Interface	RS122/CAN
Power supply	28VDC, normal operating range 22V~32V
Operating temperature	-40℃~+60℃ (customizable -45℃~+65℃)
Storage temperature	-55℃~70℃
Vibration	Meet the requirements of GJB150A.16-2009 "vibration test"
Shock	Meet GJB150A.16-2009 "impact test" requirements
Note: The table ★ weight, power consumption, volume for the maximum beam dispersion angle corresponding to the index Products can be customized	

ELECTRICAL INTERFACE

Electrical interface:

1. Requirements for connectors

J30JM-15ZK and J30JM-15ZJ are used as power supply and communication interfaces.

2. Definition of socket number of connector

The details are shown in Table 1 and 2.

Table 1 Definition of the DC28V Incoming interface

Pin	Signal definition	Remarks
1~8	24V+	
9~15	GND	

The "communication" interface is defined in the following table.

Table 2 "Communication" interface definition

Pin	Signal definition	Remarks
1	External trigger +	3.3V差分 3.3V difference
2	External trigger -	
3	RS422 RX+	Serial port communication interface
4	RS422 RX-	
5	RS422 TX+	
6	RS422 TX-	
7	GND	Signally
8	Exosync+	3.3V difference
9	External synchronization-	
10	NC	

SOFTWARE OPERATION

Port Settings <input type="text" value="COM1"/> <input type="button" value="V"/> Baud rate <input type="text" value="115200"/> <input type="button" value="V"/> <input type="button" value="Close"/>				Signal encoding Signal Control Coding method <input type="text" value="Accurate frequency"/> <input type="button" value="V"/> <input type="button" value="Settings"/>			
Working mode <input checked="" type="radio"/> I O control <input type="checkbox"/> External Trigger <input checked="" type="checkbox"/> Distance measurement mode <input type="radio"/> Serial port control <input type="checkbox"/> Debugging mode			Read LDR Parameter data	<input type="button" value="Start signal & laser (internal trigger and serial control valid)"/>		Accurate frequency Frequency / Hz <input type="text" value=""/> <input type="button" value="V"/> <input type="button" value="Binding"/>	
Parameter Setting Q-tuning delay / us <input type="text" value="v"/> <input type="button" value="Binding"/> Working hours / s <input type="text" value="v"/> <input type="button" value="Binding"/> Temperature control1 temperature/°C <input type="text" value="v"/> <input type="button" value="Binding"/> <input type="button" value="Start"/> Temperature control2 temperature/°C <input type="text" value="v"/> <input type="button" value="Binding"/> <input type="button" value="Start"/> Drive 1 current / A <input type="text" value="v"/> <input type="button" value="Binding"/> Drive 1 pulse width /us <input type="text" value="v"/> <input type="button" value="Binding"/> Drive 2 current/A <input type="text" value="v"/> <input type="button" value="Binding"/> Drive 2 pulse width / us <input type="text" value="v"/> <input type="button" value="Binding"/>				Time Code T1 <input type="text" value="V"/> T2 <input type="text" value="V"/> T3 <input type="text" value="V"/> T4 <input type="text" value="V"/> T5 <input type="text" value="V"/> T6 <input type="text" value="V"/> T7 <input type="text" value="V"/> T8 <input type="text" value="V"/> <input type="button" value="Binding"/>			
Drive gear Drive 1 current block <input type="text" value="v"/> <input type="button" value="Binding"/> Drive 2 current block <input type="text" value="v"/> <input type="button" value="Binding"/>				for random code Code Length <input type="text" value="100"/> <input type="button" value="V"/> Location <input type="text" value="V"/> <input type="button" value="Browse"/> <input type="button" value="Binding"/>			
				Distance measurement Primary Target <input type="text" value="V"/> <input type="button" value="Frequency: 1Hz"/> <input type="button" value="V"/> Second Objective <input type="text" value="V"/> <input type="button" value="Start Distance Measuring"/> Third Objective <input type="text" value="V"/> <input type="button" value="Primary Target"/>			
LDR Status Already out of the light time / working time: 10s Rested time/stopping time: 0s Temperature control 1 current temperature: 35.3°C Temperature control 2 current temperature: 35.3°C Temperature control 1 status: Stop in progress Temperature control 2 status: Stop in progress Laser status: Stopping			LDR prompt data Temperature control 1: Normal Temperature control 2: Normal LD1: Normal LD2: Normal				