RICHBEAM 锐驰智光

LakiBeam1S

ToF industry-grade single 2D LiDAR
Ultra-small volume, VCSEL laser

Introduction

LakiBeam1S is a single-line LiDAR developed by Richbeam for medium and low-speed scenarios. The industrial design is exquisite and compact, making the product small in size, light in weight, and high in performance. It supports ultra-high frequency sampling and optional angular resolution, and achieves zero blind spot within the detection range.

Applications

LakiBeam1S can be used in industrial automation, port automation. It is widely used in AGV obstacle avoidance as the main laser of indoor robots and the oblique laser of outdoor robots for mapping and obstacle avoidance.

Core Parameters

Sensor

Scanning Principle	Mechanical Rotation	Horizontal Resolution & Rotating Frequency	0.2°(10Hz); 0.5° (20Hz)
Range Principle	TOF	Protection Distance	≥15m@70% reflectivity ≥10m@10% reflectivity
Horizontal FOV	270°	Data Sample Rate	18kHz(10Hz); 14.4kHz(20Hz)
Distance Resolution	1cm	Range Accuracy	±2cm

Output

Data Output Format	RJ45/USB	Data Transmission	UDP/IP Ethernet (100 Mbps)
Time Source	Internal Timestamp	Data Output	Distance, Angle, Echo Intensity, Time

Physical Parameters

Laser Class	Class 1 Eye Safe	Dimension	60mm*60mm*80mm(D*W*H)
Wavelength	940nm	Environmental Protection	IP65
Operating Temperature	(-25°~60°)	Operating Voltage	6~36V
Storage Temperature	(-40°~75°)	Power Consumption	≤2.5W
Weight	160g		

Contrast

Product model	LakiBeam1S	LakiBeam1	LakiBeam1L
Range Principle	dToF		
Horizontal FOV	270°		
Protection Distance	≥15m@70% ≥10m@10%	≥25m@70% ≥15m@10%	≥40m@70% ≥20m@10%
Rotating frequency	10Hz; 20Hz	10Hz; 20Hz; 25Hz; 30Hz	
Data Sample Rate	18kHz(10Hz) 14.4kHz(20Hz)	36kHz(10Hz); 28.8kHz(20Hz) 36kHz(25Hz); 43.2kHz(30Hz)	
Horizontal Resolution	0.2°(10Hz) 0.5° (20Hz)	0.1°(10Hz) 0.25° (20Hz、25Hz、30Hz)	
Range Accuracy	±2cm		

About Richbeam

Richbeam(Beijing) Technology Co., Ltd., formerly known as Yinbing Technology, was founded in 2016 and is an integrated chip LiDAR solutions provider. The founding team developed the world's first integrated LiDAR based on nearly 20 years of scientific research experience in top universities. From the core technology, we continue to innovate and develop a variety of products. The products can be widely used in Autonomous Driving, Smart Transportation, Robotics, Industrial Automation, Smart Home and other fields. Richbeam has a complete intellectual property certification system, and now has more than 30 patents.