What you should know about

RoboSense

RoboSense is the world leading LiDAR environment perception solution provider who specifically focuses on autonomous driving industry. Through consistent technological innovation, the company creatively combines LiDAR hardware, 3D data processing algorithms and deep learning technology to bring the world with top-notch robot perception solutions which enable robots to see the world with better than human eyes environment perception capability.

RoboSense was founded by a team of PhDs from Harbin Institute of Technology in 2014. Over 7-year R&D and 3-year commercialization, RoboSense has successfully set up a research-production-marketing operation model for LiDAR Environment Perception Products.

Currently, the company has nearly 200 talents(factory workers not included) with 60% are post-graduate level R&D engineers. RoboSense has established long-term partnership with a few top engineering colleges including MIT, Tsinghua, and HIT, etc.

60% **R&D Team**

The R&D team is composed of more than 100 professionals, among which more than 60% are PhDs and Postgraduates.

10+ **R&D Experience**

More than 10 years of technological accumu-lation on robotics R&D. Commercialization of R&D achievements started from 2014.

1 **Technical Strength**

World leading technology power with many years of technological accumulation.

400 632 5830

激光雷达 看见大世界

More than what you see

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robosense

RS-LiDAR-32

Multi-Beam Real Time LiDAR

www.robosense.ai

RS-LiDAR-32
Multi-Beam Real Time LiDAR

RS-LiDAR-32 is a line of mass production 32 beam solid-state hybrid LiDAR products developed by RoboSense.

This line of products are developed according to OEM requirements, which asks for not only stronger performance in high-speed driving environment but also smaller footprint. Designed with a generous 40° vertical FOV, the laser heads of RS-LiDAR-32 are lined up with smaller interspace in the middle part , which gives an amazingly high vertical angular resolution of 0.33°, and larger interspace on both ends. Such design steers the scanning region of interest to the driving space and gives the 32 beam LiDAR even higher performance than that of 64 beam LiDAR products.

Applications

32 Laser Beams

The 32 beam RS-LiDAR-32A and RS-LiDAR-32B are customized to fulfill OEM's LiDAR requirements on higher speed autonomous driving.

200m Measurement Range

The 200 meter measurement range of RS-LiDAR-32 gives more response time for autonomous vehicles in high-speed autonomous driving conditions.

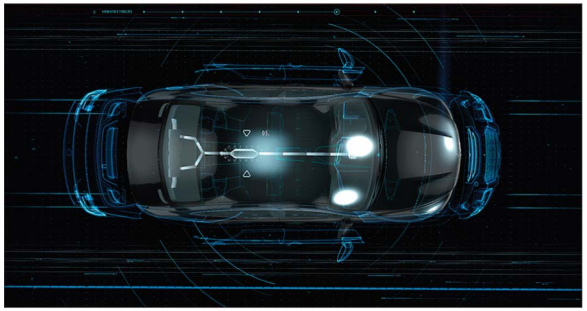
0.33° Vertical Angular Resolution

The laser heads of RS-LiDAR-32 with a minimum angular resolution of 0.33° are symmetrically lined up with smaller interspace in the middle part and larger interspace on both ends. The rich precision point cloud data of which makes human shape distinguishable within 100 meters.

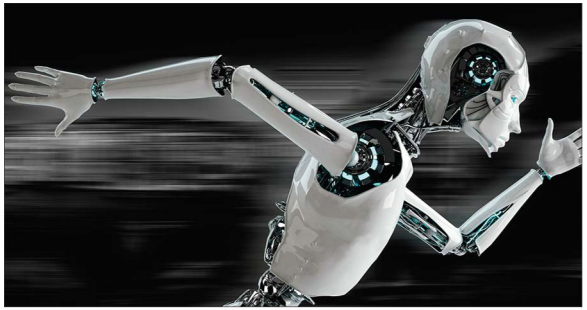
Application Scenarios

RS-LiDAR-32 is specially designed for high speed autonomous driving scenarios. Together with RoboSense's proprietory RS-LiDAR-Algorithms, it can deliver highly reliable autonomous driving environment perception data. More than that, RS-LiDAR-32 is also suitable for mobile robots environment perception and HD mapping.

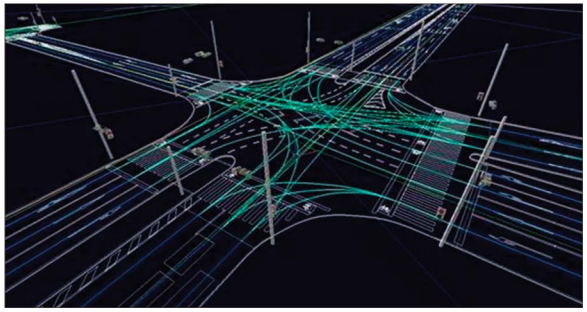
Autonomous Driving Environment Perception



Robot Environment Perception



HD Maps



Product Parameters

Sensor	Laser: 32channels
	Wavelength: 905nm
	Laser class: class1
	Accuracy: ±5cm(typical)
	Range: 0.2m~200m(20% object reflectivity)
	Data rate: 640,000pts/s
	FOV(vertical): A:30°(+15°~-15°)
	B:40°(+15°~-25°)
	Angular resolution(vertical): 0.33°(+1.66°~-4.66°)
	FOV(horizontal): 360°
	Angular resolution(horizontal): 0.09°~0.36°(5~20Hz)
Mechanical	Input voltage: 9-32VDC
	Power: 13.5W (typical)
	Sensor protection: IP68
	Operation temperature: -10~60°C
	Dimension: A:ϕ115mm*95.7mm
	B:ϕ114mm*108.73mm
	Weight: A:0.92kg B:1.0kg
Data	Data collection: 3D space coordinates/ reflectivity