



# RS-LiDAR-16

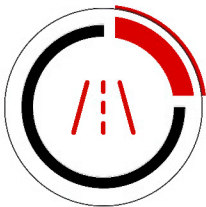
16 beam LiDAR with Better Performance



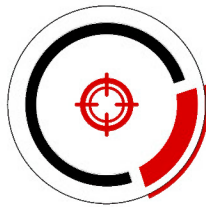
RS-LiDAR-16, launched by RoboSense, is the first of its kind in China, world leading 16-beam miniature LiDAR product. Its main applications are in autonomous driving, robots environment perception, UAV mapping and etc.

The compact housing of the RS-LiDAR-16, mounted with 16 laser/detector pairs, rapidly spins and sends out high-frequency laser pulses to continuously scan the surrounding environment, collecting real-time 3D point clouds with reflectivity of objects to enable machines to “see” and providing reliable data for localization, navigation and obstacle avoidance.

## Product Advantages



150m  
Measurement Range



2cm  
Range Accuracy



-30°C  
Cold-Resistant



RoboSense / Suteng Innovation Technology Co., Ltd.

10-11/F, Block 3, Chongwen Garden, Nanshan IPark, 3370 Liuxian Avenue, Shenzhen, China / 0755-86325830 / service@robosense.cn



RoboSense LiDAR

[www.robosense.ai](http://www.robosense.ai)

Sensor			
# of Lines	16	Horizontal FoV	360°
Laser Wavelength	905nm	Vertical FoV	30°
Laser Safety	Class 1 eye safe	Horizontal Resolution <sup>2</sup>	0.1°/0.2°/0.4°
Range <sup>1</sup>	150m (80m@10% NIST)	Vertical Resolution	2.0°
Blind Spot	≤0.4m	Frame Rate	5Hz/10Hz/20Hz
Range Accuracy (Typical) <sup>3</sup>	Up to ±2cm	Rotation Speed	300/600/1200rpm(5/10/20Hz)

Output	
Points Per Second	~300,000pts/s (Single Return Mode) ~600,000pts/s (Dual Return Mode)
Ethernet Connection	100 Mbps
Output	UDP packets over Ethernet
UDP Packet include	Spatial Coordinates, Intensity, Timestamp, etc.

Mechanical / Electrical / Operational			
Operating Voltage	9V – 32V	Dimension	φ109mm * H80.7 mm
Power Consumption <sup>4</sup>	12W	Operating Temperature <sup>5</sup>	-30°C ~ +60°C
Weight(without cabling)	~0.87 kg	Storage Temperature	-40°C ~ +85°C
Time Synchronization	\$GPRMC with 1PPS	Ingress Protection	IP67

# Applications



Autonomous Driving



V2R

Robotics

Industrial

1 The range performance is depending on circumstance factors, not only temperature, range and target reflectivity but also including other uncontrollable factors.

2 The corresponding operating frequency of 0.1°/0.2°/0.4° is 5Hz/10Hz/20Hz.

3 The measurement target of accuracy is a 50% NIST diffuse reflectance target, the test performance is depending on circumstance factors, not only temperature, range and target reflectivity but also including other uncontrollable factors.

4 The power consumption is tested under 10Hz frame rate. The result is depending on circumstance factors, not only temperature, range and target reflectivity but also including other uncontrollable factors.

5 The operation temperature is depending on circumstance factors, not only sun load and air flow but also including other uncontrollable factors.