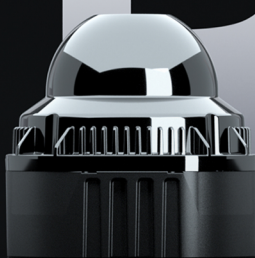


AIRY



Lite

360°×45° Ultra-Compact Digital LiDAR

Airy Lite is an ultra-compact 360° digital LiDAR specifically engineered for robotics applications. It adopts a digital architecture and features a 360°×45° omnidirectional FOV, ultra-long detection range of 60m, and high ranging precision of 1 cm (1σ), delivering large-area, high-accuracy perception capability. With a compact body and a 20mm low-profile optical window, Airy Lite can be easily embedded into various devices. It also offers strong resistance to impact, vibration, and shock, making it highly durable.

Airy Lite provides structured point clouds and is algorithm-friendly, enabling real-time detection of objects in 3D space, helping robots efficiently perform localization, mapping, navigation, and obstacle avoidance. Whether it's complex terrain detection or irregular obstacle recognition, Airy Lite performs outstandingly, making it an ideal perception solution for consumer, industrial, and commercial robotics applications.

Advantages



Ultra-wide Range
Perception



High
Precision



Compact &
Lightweight



Integrated
IMU



Digital
Architecture



24-beam
3D Perception



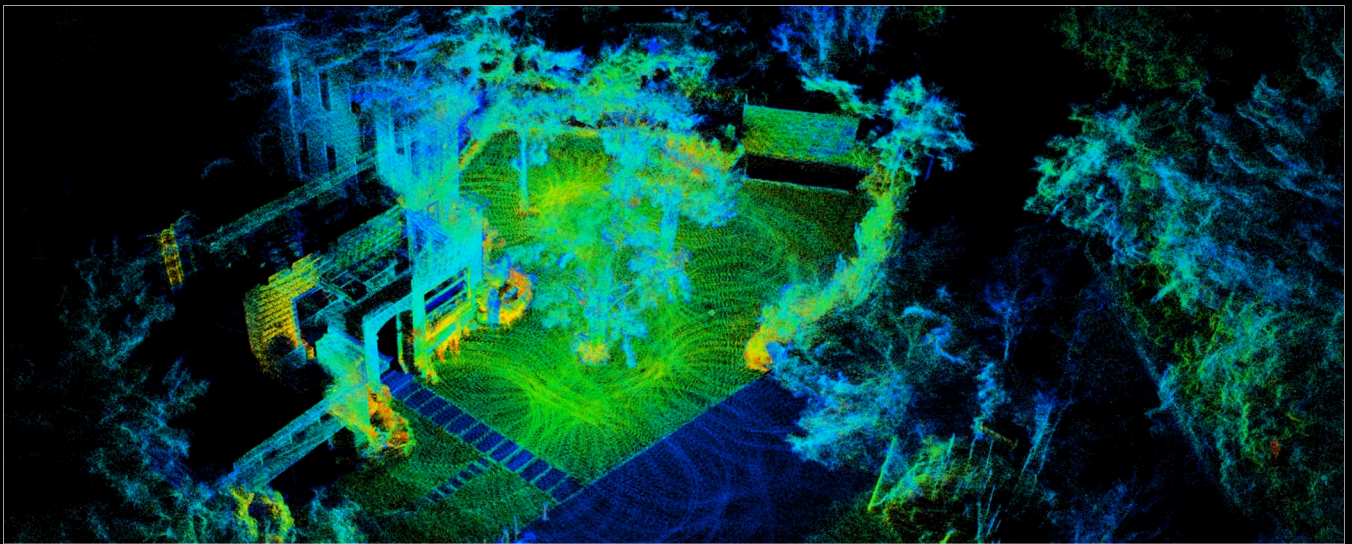
Wide Operating
Temperature Range



Low Noise & Low
Power Consumption

RoboSense Technology Co., Ltd

Building 9, Block 2, Zhongguan Honghualing Industry Southern District, 1213 Liuxian Avenue, Taoyuan Street, Nanshan District, Shenzhen, China
0755-86325830 / service@robosense.cn



Efficient SLAM & Navigation

Specifications

Version	Serial Port Ver.	ETH Ver.
Laser Wavelength	940nm	
Laser Safety	Class 1 eye safety	
Range	7-18 Channels: 40 m @10% / 1-6 & 19-24 Channels: 30 m @10% / Maximum Range: 60 m	
Precision	1 cm(1σ)	
Blind Spot	< 0.1 m	
Horizontal FOV	360°	
Vertical FOV	45°(-11.5°~+33.5°)	
Angular Resolution	0.6°(H)×1.96°(V)	
Point Rate (Single Return Mode)	~144,000 pts/s	
Point Rate (Dual Return Mode)	~288,000 pts/s	
Frame Rate	10 Hz	
Dimension	69 mm(H)×64 mm(W)×62 mm(D) (Without Lead-out)	72.5 mm(H)×64.2 mm(W)×65 mm(D) (Including Aviation Plug)
Weight	210±10 g	235±10 g
Power Consumption	4.5 W	6 W
Interface	RS-485	100BASE-TX
Output	UART 8N1	UDP packets over Ethernet
Operating Voltage	10 ~ 16 V	9 ~ 32 V
UDP Data Packet Content	Distance, Reflectivity, Timestamp, etc.	
Time Synchronization	\$GPRMC with 1PPS	GPS & gPTP & PTP
Working Temperature	-20 °C ~ + 60 °C	
Storage Temperature	-40 °C ~ + 85 °C	
Ingress Protection	IP67	

RoboSense Technology Co., Ltd

Building 9, Block 2, Zhongguan Honghualing Industry Southern District, 1213 Liuxian Avenue, Taoyuan Street, Nanshan District, Shenzhen, China
0755-86325830 / service@robosense.cn