



Airy

96-beam Ultra-wide Angle HD LiDAR

RoboSense Technology Co., Ltd

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Overview

Airy, the first digitalization LiDAR product under the R platform, is an ultra-wide HD LiDAR designed for AI robots, equipped with the new generation of receiver systems and adopting advanced VCSEL and SPAD-SoC chips.

Airy features a compact design that delivers outstanding point cloud quality and performance. With a unique hemispherical FOV, a 96-beam high-definition 3D point cloud, and a maximum detection range of 60 meters, Airy supports a wide range of functions including navigation, mapping, recognition, and obstacle avoidance. It's available to be applied to AI robotics products such as AGVs, AMRs, unmanned forklifts, delivery robots, cleaning robots, lawn-mowing robots, and service robots.

Airy emits millions of laser beams per second to scan the environment, making it unaffected by environmental lights, which allows robots to operate continuously in various conditions, whether indoors or outdoors, day or night.

Product Specifications

Wavelength	940nm	#of Lines	96
Range	30m@10%	Laser safety	Class 1 Eye Safety
Maximum range	60m	Accuracy	1.5cm (1 Sigma)
FOV (H×V)	360°×90°	Blind spot	<0.1m
Angular resolution (H)	0.4°	Angular resolution (V)	0.94°
Frame rate (adjustable)	10Hz	Power consumption	<8W
Points per second (single return mode)	860,000pts/s	Points per second (Dual return mode)	1,720,000pts/s
Ethernet connection	100Base-TX	Output	UDP packets over Ethernet
Dimension	φ60mm×H63mm	UDP packet include	Spatial Coordinates Intensity Timestamp, etc.
Weight (without cabling)	<240g	Operating voltage	9V ~ 32V
Operating temperature	-40°C ~ +60°C	Storage temperature	-40°C ~ +85°C
Time synchronization	\$GPRMC with 1PPS, PTP&gPTP	Ingress protection	IP67、IP6K9K

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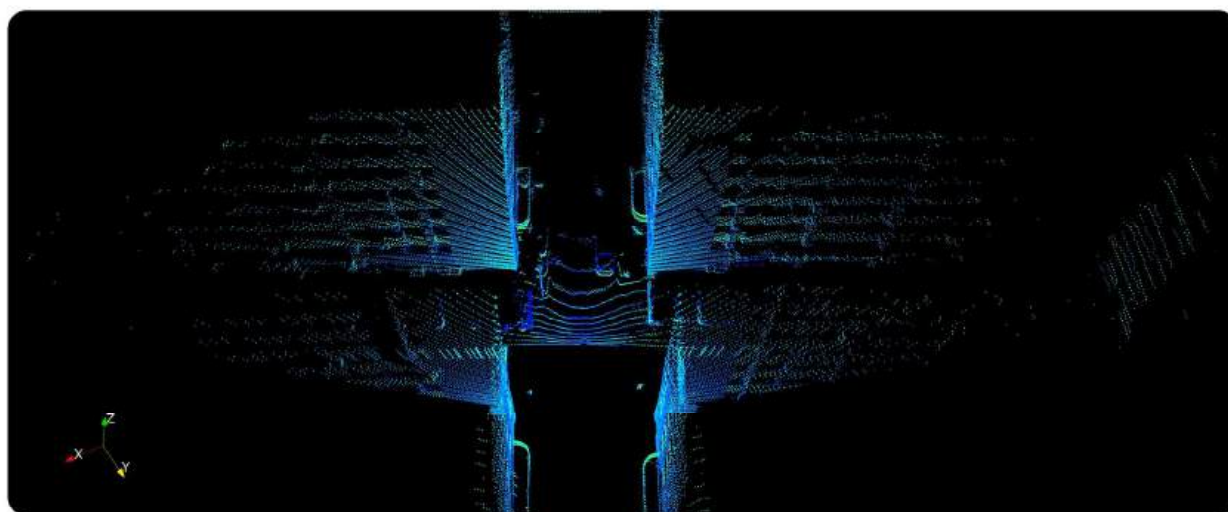
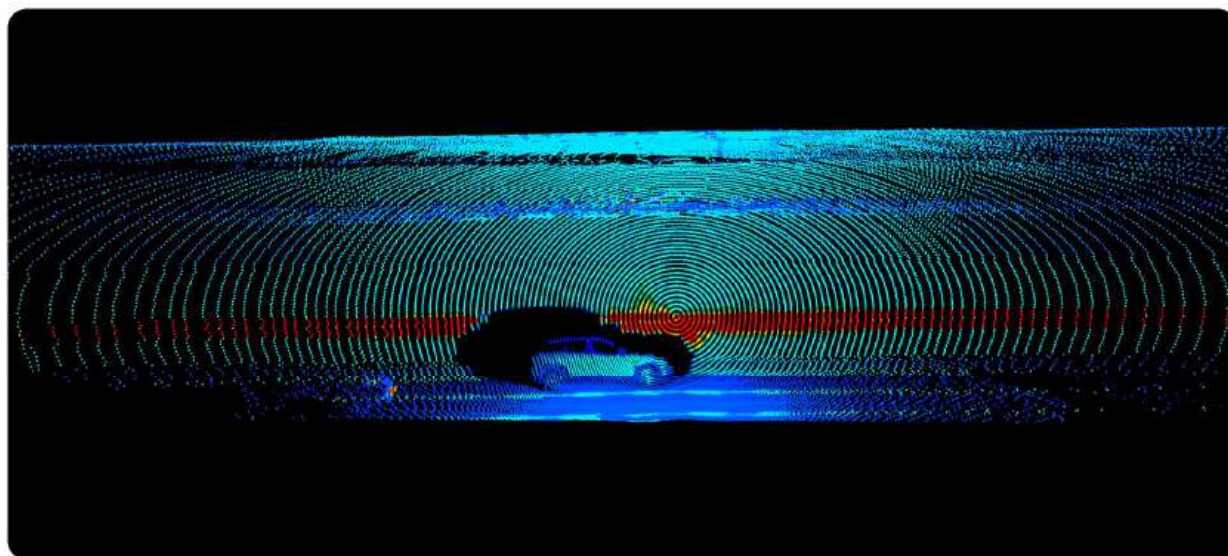


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Hemispherical Ultra-wide FOV



96-beam High-definition Point Cloud



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Applications

The compact design enables Airy to be perfectly embedded into various types of robots. With its unique hemispherical FOV, Airy accurately scans every corner around the robot, helping achieve full-view environmental perception.

Autonomous Delivery Robot

● Airy×4



Cleaning Robot

● Airy×4



Legged Robot

● Airy×2



Lawn-mowing Robot

● Airy×1



Humanoid Robot

● Airy×2



Unmanned Forklift

● Airy×4



AMR

● Airy×1



Service Robot

● Airy×1



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