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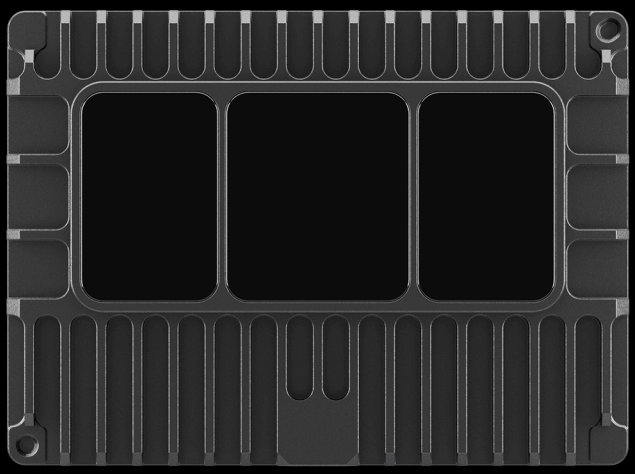

E1

High-Performance Fully Solid-State Blind Spot LiDAR

RoboSense Technology Co., Ltd

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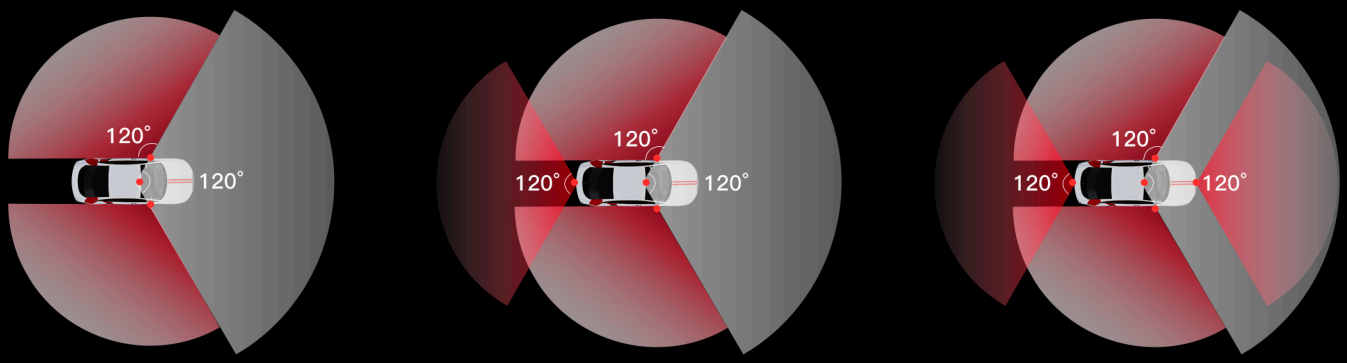
Overview

E1 is a high-performance, fully solid-state blind-spot LiDAR designed for OEM mass production. It features the world's first digitalized SPAD-SoC chip and 2D VCSEL chip, offering an exceptional architecture and a compact design.

E1 is equipped with a 120°×90° ultra-wide FOV, an ultra-high refresh rate of up to 30 Hz, and a strong ranging capability of 30 meters @10% reflectivity. It precisely meets blind-spot perception requirements across a wide range of driving scenarios. By combining multiple LiDAR units, E1 enables comprehensive coverage of diverse blind-spot areas, fulfilling the safety perception needs of intelligent driving from ADAS to L4.

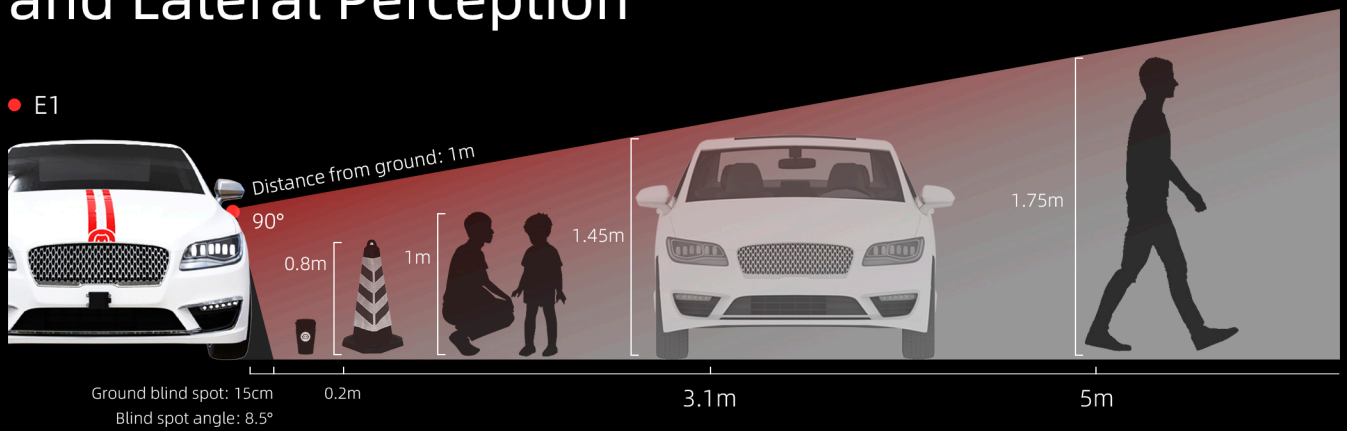
120° Horizontal FOV, Optimized Deployment



- E1 x2 ● Front LiDAR x1
- E1 x3 ● Front LiDAR x1
- E1 x4 ● Front LiDAR x1

90° Vertical FOV, Covering Ground Blind-Spots and Lateral Perception

- E1



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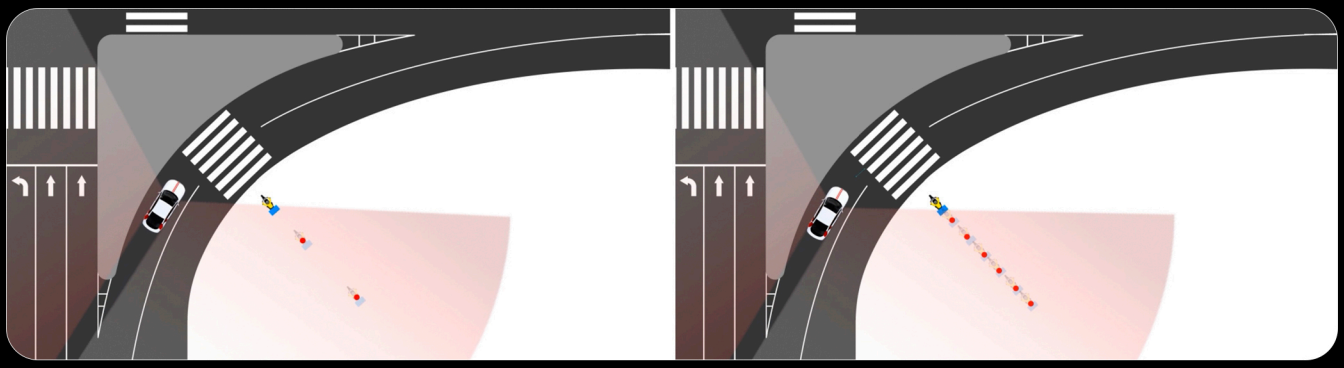
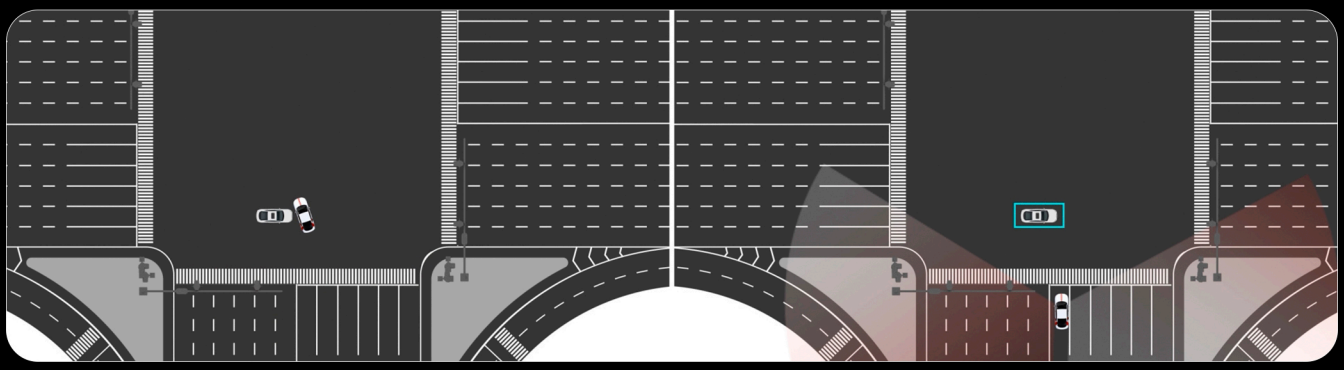
Frame Rate Up to 30 Hz, Enhanced Small Object Detection



Extended Detection Range Up to 75m (30m @10%)

Covering Two-Way 12-Lane Intersection Scenarios



Fully Digital Architecture, Commercially Mature

Self-developed SPAD-SoC chip

Industry-exclusive 2D-addressable VCSEL arrays

Industry's only mature mass production

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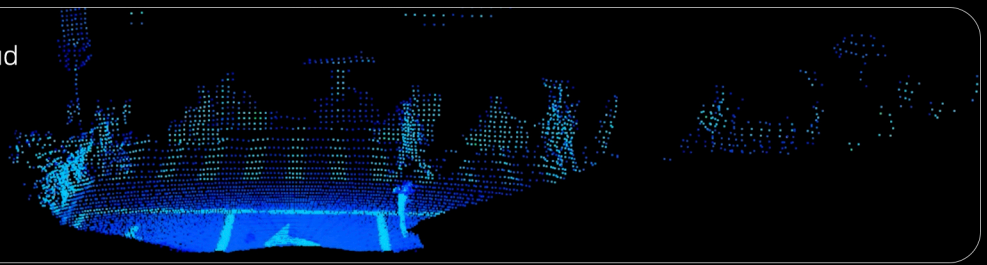
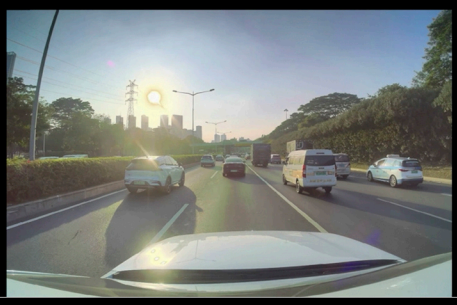
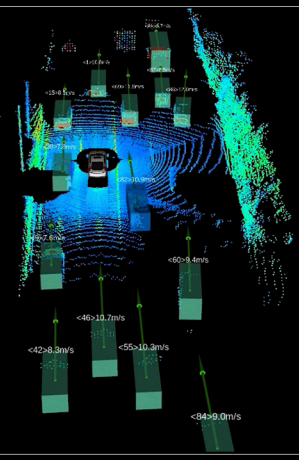
High-Resolution Point Cloud



Accurate Obstacle Detection





Specifications

Wavelength	940nm	#of Lines	144
Range	30m@10%	Laser safety	Class 1 eye safety
Maximum range	75m	Accuracy	±5cm
FoV (H*V)	120°×90°	Blind spot	≤0.1m
Angular resolution (H)	Average 0.625°	Angular resolution (V)	Average 0.625°
Frame rate (adjustable)	10Hz/20Hz/30Hz	Power consumption	<10W
Points per second (single return mode)	260,000 pts/s	Points per second (dual return mode)	520,000 pts/s
Dimensions (H×W×D)	69.5×95×43mm	Window dimensions (H×W×D)	35×75×7mm
Weight (without cabling)	330±20g	Operating voltage	9 - 16V
Working temperature	-40°C ~ +85°C	Storage temperature	-40°C ~ +105°C
Time synchronization	gPTP	Ingress protection	IP67、IP6K9K

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