



The World's First Ultra-Long-Range Digital LiDAR

EM4 is the flagship product of RoboSense's brand-new digital architecture EM Platform. It integrates multiple advanced technologies, including digital architecture, crosstalk removal, all-condition optoelectronic signal processing, and lossless data compression. EM4Gen1 features 520 lines, a maximum detection range of 300m, and an imaging capability of 12.48million points/sec—top-tier performance that leads LiDAR into the digital era.

Product Advantages



Ultra-High
Beam Count



Ultra-Long
Detection Range



High
Resolution



All-Condition
Adaptability



SPAD-SoC
Chip



VCSEL Chip

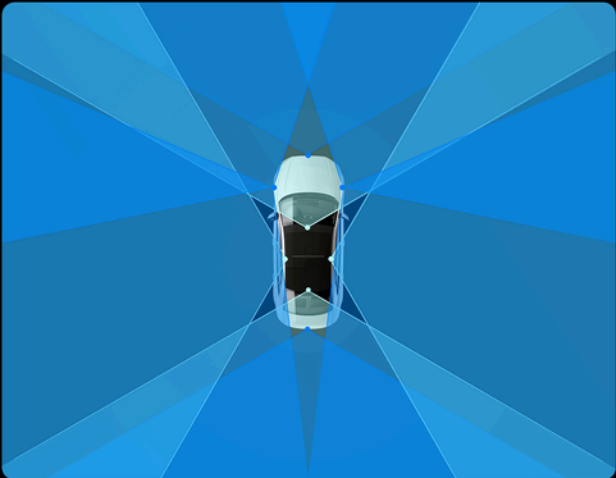
Product Specifications

Lines	520	Points per second (Dual return mode)	12,480,000 pts/s
Laser Wavelength	905nm	Ethernet Connection	1000M Base T1
Laser Safety	Class 1 Eye Safety	Output	UDP packets over Ethernet
Range	300m(250m@10% NIST)	UDP Packet content	Distance, Angular coordinates, Intensity, Timestamp, etc.
Blind Spot	≤1m	Operating Voltage	9V - 16V
Range Precision (Typical)	5cm (1sigma)	Power Consumption	16W
Horizontal FOV	120°	Operating Temperature	-40°C ~ +85°C
Vertical FOV	≥25°	Storage Temperature	-40°C ~ +105°C
Horizontal Resolution	≤ 0.1°	Weight(Without Cables)	~930g±5%
Vertical Resolution	0.05°	Dimensions	110mm (D) x 140mm (W) x45mm (H)
Frame Rate	10Hz	Time Synchronization	gPTP
Points per second (Single return mode)	6,240,000 pts/s	Ingress Protection	IP67、IP6K9K

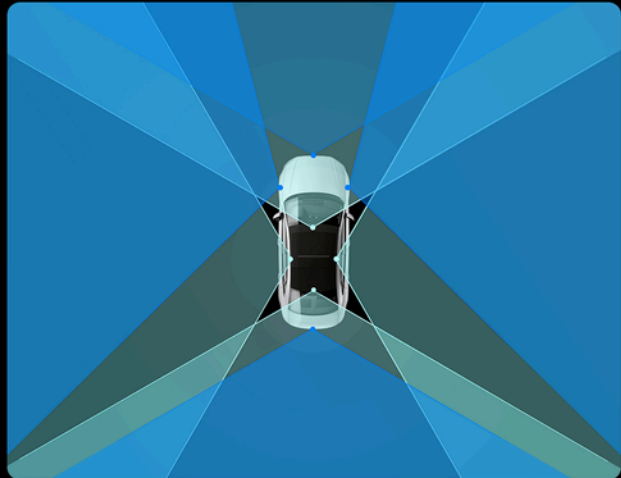
Deployment Recommendations

EM4, paired with 4 to 6 E1 solid-state blind-spot LiDARs, is highly favored in Robotaxi, Robotruck, Robobus and other scenarios.

- EM4x4 + • E1x6



- EM4x4 + • E1x4



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