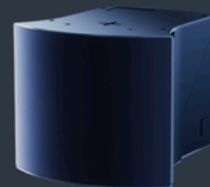















Robin W

Ultra-wide FOV LiDAR



- Ultra-wide field of view and distance capability from 0.1m to 150m
- Ideal for blind spot monitoring by integration into the vehicle side
- Automotive grade reliability and lifetime, using proven scanning architecture
- Ideal for wide-angle monitoring of intersections and pedestrian venues at mid-distance ranges

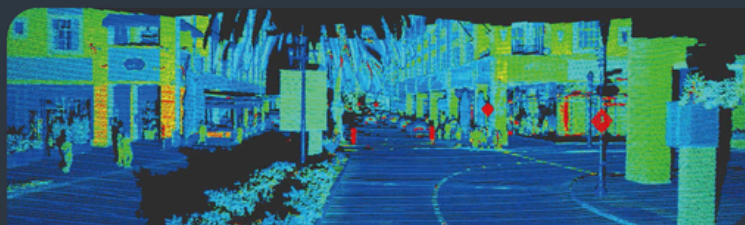
Key Specifications

 0.1m~150m(70m@10%) Detection Range	 120°×70° FOV(H×V)	 0.1°×0.36° Resolution(H×V)	 10~20FPS(10 default) Frame Rate
 192lines Scan Lines	 -40°C to 85°C Operating Temperature	 IP67(body), IP69K(window) Water and Dust Protection	 905nm,Class1(IEC-60825) Laser
 85mm×102mm×105mm Dimensions(H×W×D)	 750g Weight	 9W Power Consumption	

Applications

 ADAS/AD	 Smart City	 Highways	 Railways	 Ports	 Shipping	 Mining	 Robotics
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About Seeyond



Seeyond is a leading global provider of image-grade LiDAR technology, powering a safer, smarter and more mobile world across the automotive, intelligent transportation, robotics and industrial automation sectors. Founded in Silicon Valley with strategically placed research and manufacturing facilities across the globe, Seeyond is crafting LiDAR solutions that elevate autonomous driving and fuel the advancement of smart infrastructure development.

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Falcon K1 LiDAR

Falcon is an industry-leading automotive-grade LiDAR developed by Seyond through forward engineering. It can detect objects as far as 500 meters, and dark objects with 10% reflectivity up to 250 meters. Falcon can maximize point density in region of interest (ROI) which is adjustable to focus where it matters most to better track objects on the road. High performance LiDAR with strong environmental adaptability like Falcon is key to safe autonomy and smart transportation.



Features

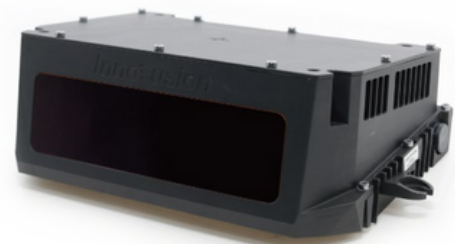
- 500m ultra-long detection range, image-grade ultra-high resolution
- Flexible and adjustable ROI
- 1550nm laser wavelength enables better eye-safety
- Greater environmental adaptability and longer product life
- Mass production of automotive-grade robust products is ready

Specifications

OPTICAL PERFORMANCE	
Range (Maximum)	500 m
Range (Minimum)	1.5 m
Detection Range (10% Lambertian reflectivity @ 10 Hz)	250 m@100 klx sunlight, POD>90%
Detection Range Accuracy	± 5 cm for Lambertian targets ± 10 cm for retroreflectors
Detection Range Precision (10% Lambertian reflectivity)	2 cm (50 m@1sigma)
Detection Range Resolution	0.5 cm
Vertical Scanning Lines	1520 lines/sec
FOV in non-ROI (H×V)	120°×25°
FOV in ROI (H×V)	40°×4.8°
Angular Resolution in non-ROI (H×V)	0.18°×0.24°
Angular Resolution in ROI (H×V)	0.09°×0.08°
Angular Accuracy	± 0.1°
Frame Rate	10 FPS (configurable: 5 to 20 FPS)
False Positive Rate	<0.01% @ 100 klx sunlight
# of Returns	Up to 2 returns
LASER	
Laser Safety Class	Class 1 (IEC 60825-1)
Laser Wavelength	1550 nm
Beam Divergence (Full Angle)	0.1°

Falcon Prime LiDAR

Falcon Prime is an image-grade ultra-long range LiDAR developed by Seyond as a core sensor for smart transportation scenarios like V2X, smart highway and smart railway, etc. With maximum detection range of 500 meters and ultra-high resolution of $0.09^{\circ} \times 0.08^{\circ}$. It can effectively perceive small obstacles at a long distance. Highly-integrated design, wide application scenarios, easy deployment and maintenance enable its long-term stable operation on roadside, which effectively ensures the perception and safety requirements of smart transportation.



Features

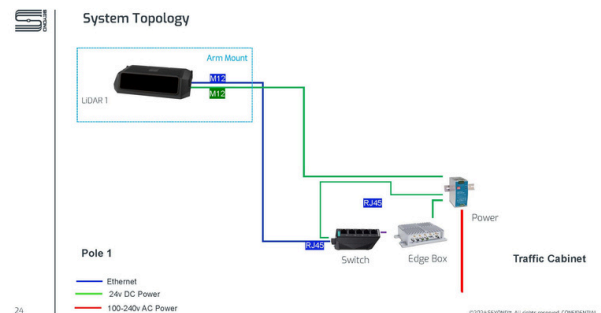
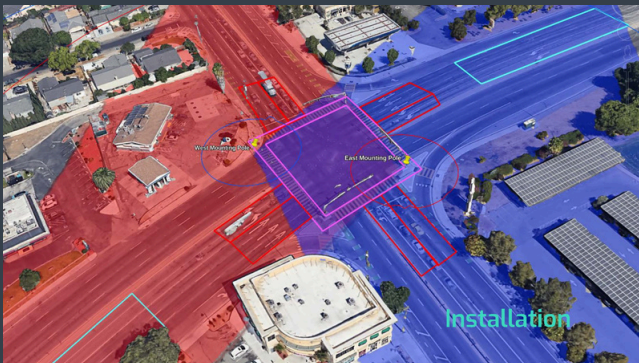
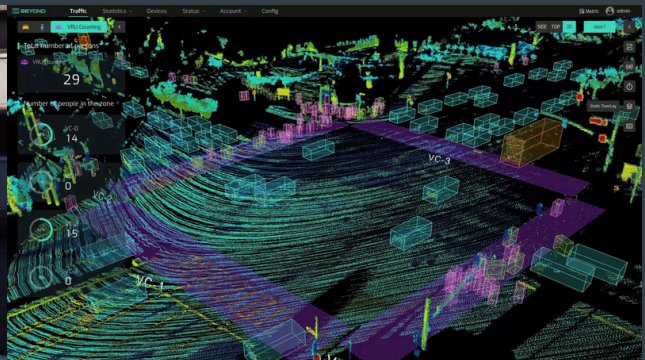
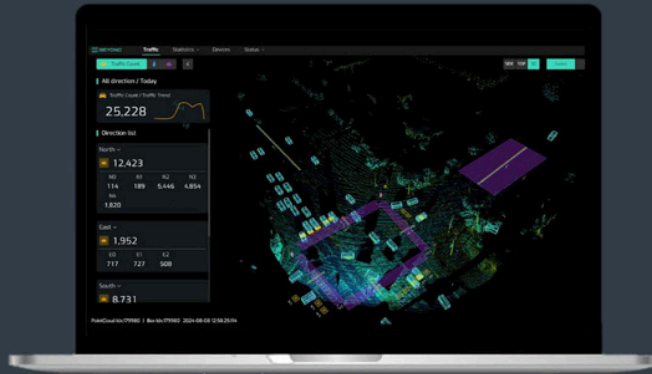
- Highly integrated design, easy deployment and high maintenance efficiency.
- Image-grade resolution with wide FOV, as well as max detection range of 500m, applicable to different scenarios.
- 1550nm laser wavelength, eye-safe.

Specifications

OPTICAL PERFORMANCE	
Range (Maximum)	500 m
Range (Minimum)	1.5 m
Detection Range (10% Lambertian reflectivity @ 10 Hz)	250 m@100 klx sunlight, POD>90%
Detection Range Accuracy	± 5 cm for Lambertian targets ± 10 cm for retroreflectors
Detection Range Precision (10% Lambertian reflectivity, 1 standard deviation)	2 cm (50 m@1sigma)
Detection Range Resolution	0.5 cm 1500 to 2000 lines/sec HFOV: 100° to 120° VFOV: 25°
Vertical Scanning Lines	$40^{\circ} \times 4.8^{\circ}$ $0.18^{\circ} \times 0.24^{\circ}$ $0.09^{\circ} \times 0.08^{\circ}$
FOV in non-ROI	Note: The angular resolution in ROI can reach $0.06^{\circ} \times 0.06^{\circ}$. Some optical parameters will be changed as follows.
FOV in ROI	
Angular Resolution in non-ROI	Detection Range (10% Lambertian reflectivity @ 10 Hz): 200m
Angular Resolution in ROI	@ 100 klx sunlight, POD>90% Vertical scanning lines: 1600 lines/sec

SIMPL-Intersection

AI & Lidar Detection



Benefits of LiDAR & AI for Detection on Highways



Accurate

Long-range sensors detect and classify vehicles up to 300 m and pedestrians up to 150 m.



Reliable in All Conditions

Performs consistently in adverse weather and low-light environments.



Easy to Install and Maintain

Simplified setup and minimal maintenance reduce operational disruptions.



Multimodal Detection

Accurately identifies vehicles and pedestrians outside of vehicles on the highway.



Privacy Safe

Protects personal privacy by avoiding the capture of identifiable images.



Enhanced Safety Data

Delivers precise, multimodal data to improve safety analysis and interventions.



Reliable Real-Time Data

Our system delivers real-time, precise data that meets industry standards, backed by NEMA TS 2-2021 certified FALCON LiDAR sensors for trusted performance in any conditions.



Scalable and Future-Proof

Easily expandable and upgradeable to adapt to future needs.