

Falcon K2 Pro LiDAR

Falcon K2 Pro is an industry leading ultra-high performance LiDAR developed by Seyond based on the automotive industry proven Falcon K2 Pro LiDAR for a variety of scenarios such as V2X, smart city, smart highway, etc. With an ultra-long detection distance of 500m, and an ultra-high resolution, Falcon K2 Pro could achieve effective perception of small objects at long distances. The Flexible and adjustable ROIs can increase the resolution within the target area, leading to better detection and more detailed information.



Features

- 500m ultra-long detection range, wide FoV and image-grade ultra-high resolution make it possible to be widely used in a variety of scenarios.
- Flexible and adjustable ROI ensures a high diversity point cloud at any mounting location.
- 1550nm laser wavelength enables better eye-safety and provides better protection interference with radiation and sunlight.

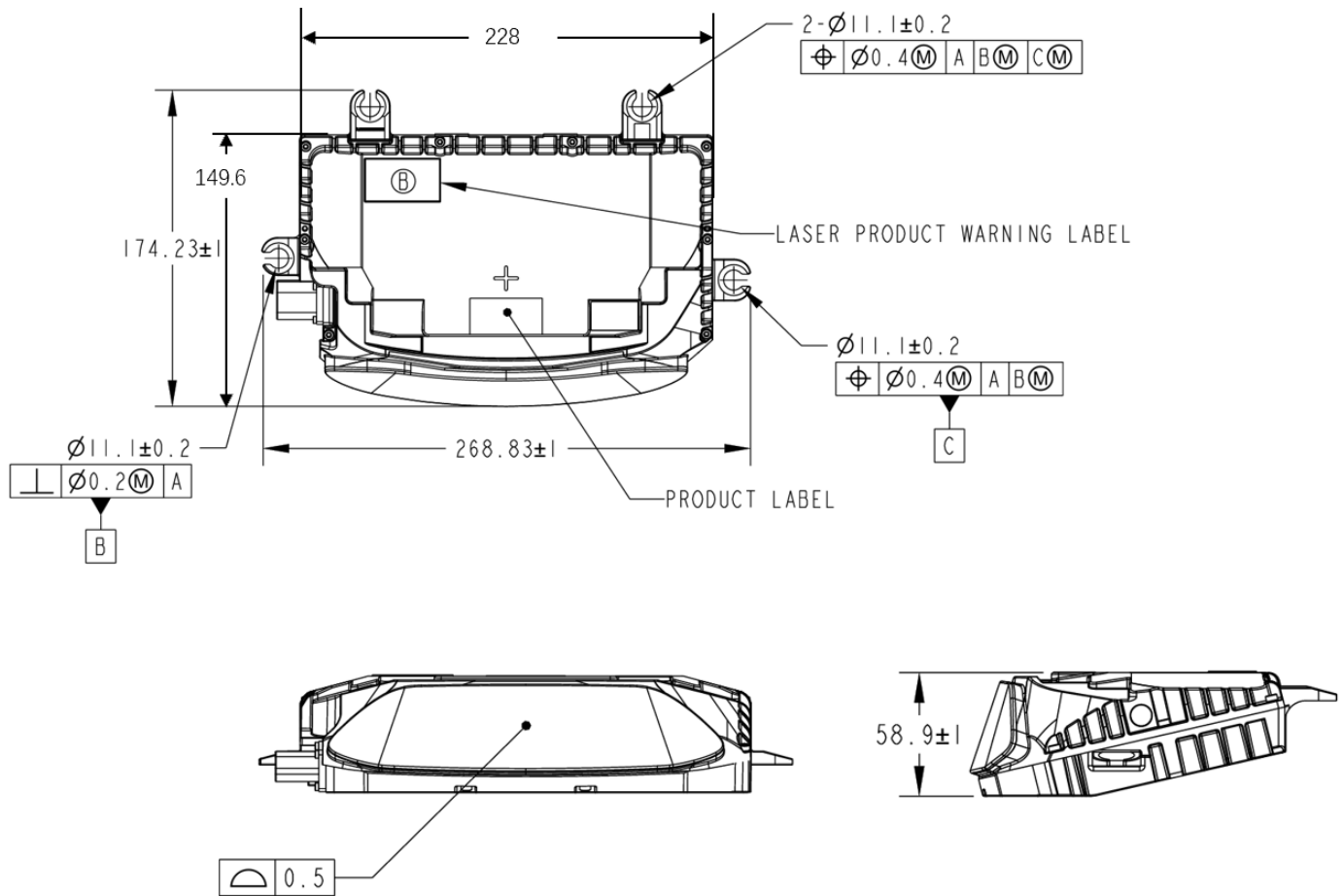
Specifications

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 Note: "Accuracy is calculated based on the discrepancy between the average of 50 measurements on static target at a specific distance and the true distance"	± 2 cm
Detection Range Precision (10% Lambertian reflectivity)	2 cm (1 standard deviation)
Vertical Scanning Lines	1500 lines/sec
FOV in non-ROI (H×V)	120°×25°
FOV in ROI (H×V)	120°×9.6°
Angular Resolution in non-ROI (H×V) *	0.2°×0.24°
Angular Resolution in ROI (H×V)*	0.1°×0.15° (1 st 4.8°), 0.1°×0.1°(2 nd 4.8°)
Angular Accuracy	± 0.1°
Frame Rate *	10 FPS (Adjustable: 5~20FPS)
False Positive Rate	<0.01% @ 100 klx sunlight

# of Returns	2 returns
LASER	
Laser Safety Class	Class 1 (IEC 60825-1)
Laser Wavelength	1550 nm
Beam Divergence (Full Angle)	0.1°
LIDAR OUTPUT	
Data transmission	1000Base-T1 Ethernet (UDP, TCP/IP)
Points Per Second	1370,000 Points/s (single echo) 2740,000 Points/s (dual echo)
Data Rate (Megabits Per Second)	93.52 Mb/s (single echo) 139.6 Mb/s (dual echo)
Data Output	radius, azimuth, reflectivity, timestamp, frame ID, return mode, working mode, fault state, CRC verification, etc.
CONTROL INTERFACE	
Communication Interface	TCP and HTTP APIs
Time Synchronization	IEEE1588 (PTP), IEEE 802.1as(gPTP), NTP
MECHANICAL/ELECTRICAL	
Power Consumption	20 W
Standard voltage	12V DC
Connector	Proprietary pluggable connector (Power + Automotive Ethernet + CAN)
Dimensions (H×W×D)	58.9 mm × 229.2 mm × 149.8 mm
Weight	About 1.7 kg
Mounting	4×M4×18 screws, located in bushings
OPERATIONAL	
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-40 °C to +105 °C
Ingress Protection	IP67(body), IP69K(window)
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-64
Compliance	IEC60825-1 Class 1 eye-safe, RoHS, CE, FCC 
ACCESSORIES	
Optional Wire Harness	5m cable (power & Ethernet)
Optional Converter	MetAdaptor
Optional Mount	Metal bracket
SOFTWARE	
Available Drivers	ROS/ROS2

Parameter with * can be customized.

Dimensions (Unit: mm)



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*Specifications are subject to change without notice and based on engineering targets. Specs are not guaranteed to have passed full validation at the time of publication.