## Falcon K2 LiDAR

Falcon K2 LiDAR 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 L2+ 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

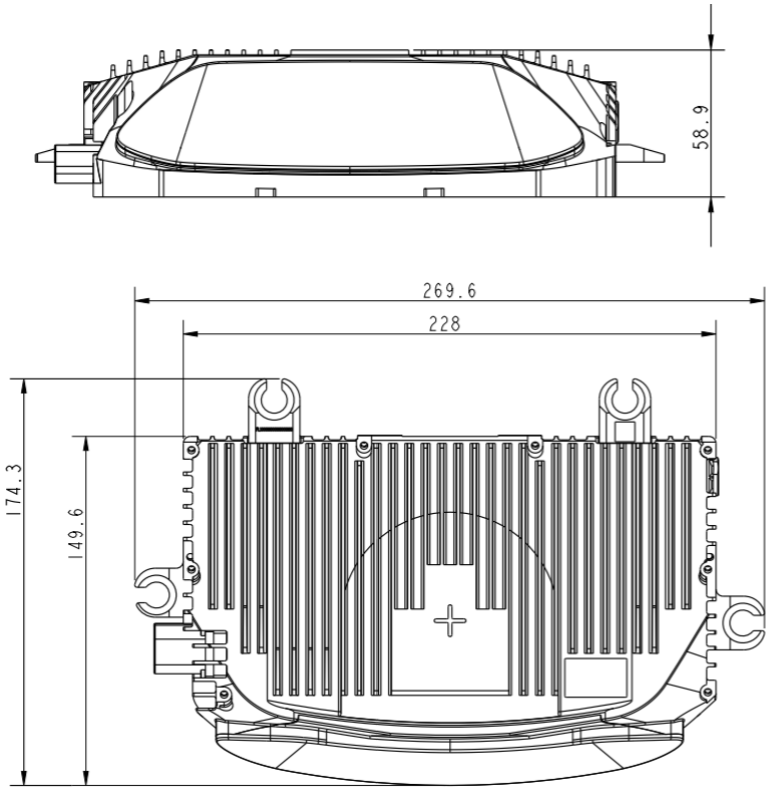
## Specifications

| **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<br>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 ** | Up to 2cm (1 standard deviation) |
| Detection Range Resolution | 0.5 cm |
| 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° (1st 4.8°), 0.1°×0.1°(2nd 4.8°) |
| Angular Accuracy | ± 0.1° |
| Frame Rate * | 10 FPS |
| # of Returns | Up to 2 returns |

| | |
|---|---|
| **LASER** | |
| Laser Safety Class | Class 1 (IEC 60825-1:2014) |
| 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/sec @1 return<br>2740,000 Points/sec @2 return |
| Data Rate (Megabits Per Second) | 11.69MB/S@1 return<br>17.45MB/S@2 return |
| Data Output | radius, azimuth, reflectivity, timestamp, frame ID, return mode, working mode, fault state, CRC verification, etc. |
| **CONTROL INTERFACE** | |
| Interface | TCP and HTTP APIs |
| Time Synchronization | IEEE1588 (PTP), IEEE 802.1as(gPTP), NTP |
| **MECHANICAL/ELECTRICAL** | |
| Power Consumption | 20 W |
| Operating Voltage | 9 to 32V DC |
| Standard Voltage | 12V DC |
| Connector | Proprietary pluggable connector (Power + Automotive Ethernet + CAN) |
| Dimensions (H×W×D) | 58.9 mm × 228 mm × 149.6 mm |
| Weight | 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 |
| **ACCESSORIES** | |
| Optional Wire Harness | 5m cable (power & Ethernet) |
| Optional Converter | MetAdaptor |
| Optional Mount | Metal bracket |
| **SOFTWARE** | |
| Available Drivers | ROS/ROS2 |

* The parameter with the mark* can be customized.
** The detection Range Precision is preliminary version, which is subject to change without notice

## Dimensions (Unit: mm)




*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.