

S192

Wide FoV High-Resolution Imaging LiDAR

Revision: 05/31/2026

FIRMWARE VERSION: v1.0

SUMMARY

The S192 is an Wide FoV High Resolution LiDAR with 192 channels. It provides a 120° horizontal and 90° vertical field of view. Designed for Wide FoV autonomous driving, it ensures stable operation in extreme conditions, making it ideal for vehicles and advanced infrastructure systems requiring precise environmental perception.



HIGHLIGHTS

- Qualified, robust design for automotive environmental durability
- Support above Vertical 192 Channel
- The sensor offers high detection accuracy and a wide operational temperature range

Sensor Specification

Capable Detection Range	100m
Detection Range (80% Lambertian reflectivity@10Hz)	75m @ >80% detection probability
Detection Range (10% Lambertian reflectivity@10Hz)	25m @ >80% detection probability
Minimum Range	0.1 m (detected) / 0.3 m (valid data)
Range Accuracy	±5 cm
Precision (1 standard Deviation)	5 cm
Range Resolution	3 cm
Field of View	Vertical: 90° Horizontal: 120°
Vertical Channel	192
Vertical Resolution	0.468°
Horizontal Resolution	0.468° @ 10/20Hz
Frame Rate	10 / 20 Hz
# of Returns	up to 2 echoes, Dual-return mode (Strongest, First, Last)

LASER

Laser Product Class	Class 1 – Eye Safety IEC60825- 1:2014
Laser Wavelength	940nm

Interface

Communication	1G Ethernet(1000Base-T)
Connection	UDP and HTTP APIs
Points Per Second (based 1 echo)	490 Kpts/s (10Hz) / 980 Kpts/s (20Hz)
Data Output	Distance (Coordinate), Intensity, Ambient
Timing Synchronization	PTP, gPTP

MECHANICAL/ELECTRICAL

Power Consumption	<12W (Idle)
Operating Voltage	9V ~ 24V
Dimensions	69*48*75mm(W*H*D)
Weight	320g
Mounting	Reference below DRAWING

OPERATIONAL

Operating Temperature	- 40°C ~ 85°C
Storage Temperature	- 40°C ~ 105°C
Ingress Protection	IP67, IP69K
Shock	IEC 60068-2-27 (Amplitude: 40g, Shape: 6ms half-sine, 3 shocks x 6 directions)
Vibration	IEC 60068-2-64 (Amplitude: 3.45G-rms, Shape: 10-1000 Hz, Mounting: sprung masses, 3 axes w/8hr duration each)
Compliance	KC, CE, FCC, RoHS

ACCESSORIES

Included Interface Box	12 V power adapter (AC 220V), 2 m sensor cable
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SOFTWARE

Sample Drivers	Viewer (Window), ROS2 (Linux)
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