

G192

Long-Range High-Resolution Imaging LiDAR

Revision: 04/20/2026

FIRMWARE VERSION: v1.1

SUMMARY

The G192 is an automotive-grade long-range LiDAR with 192 channels, capable of ultra-long-range detection up to 300 meters. It provides a 120° horizontal and 25° vertical field of view. Designed for high-performance autonomous driving, it ensures stable operation in extreme conditions, making it ideal for vehicles and advanced infrastructure systems requiring precise environmental perception.



HIGHLIGHTS

- Surface (Window) Heating Solution
- Qualified, robust design for automotive environmental durability
- Support above Vertical 100 Channel
- The sensor offers high detection accuracy and a wide operational temperature range

Sensor Specification

Capable Detection Range	300m
Detection Range (80% Lambertian reflectivity@10Hz)	200m @ >80% detection probability
Detection Range (10% Lambertian reflectivity@10Hz)	150m @ >80% detection probability
Minimum Range	0.5 m (detected) / 1m (valid data)
Range Accuracy	±5 cm
Precision (1 standard Deviation)	5 cm
Range Resolution	2 cm
Field of View	Vertical: 25° Horizontal: 120°
Vertical Channel	192
Vertical Resolution	0.13°
Horizontal Resolution	0.15° @ 10Hz 0.30° @ 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	905nm

Interface

Communication	Automotive Ethernet(1000Base-T1)
Connection	UDP and HTTP APIs
Points Per Second (based 1 echo)	1,499,520 pts/s (0.15°, 10Hz)
Data Output	Distance (Coordinate), Intensity, Ambient
Timing Synchronization	PTP, gPTP

MECHANICAL/ELECTRICAL

Power Consumption	<15W (Idle)
Operating Voltage	9V ~ 24V
Dimensions	182*45*115mm(W*H*D)
Weight	900g
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), 5 m sensor cable
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SOFTWARE

Sample Drivers	Viewer (Window), ROS2 (Linux)
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