

G32

Long-Range High-Resolution Imaging LiDAR

Revision: 08/08/2025

FIRMWARE VERSION: v1.0

HARDWARE VERSION: G32-20250808

SUMMARY

The G32 is a fixed LiDAR sensor with 32 channels, offering a detection range of up to 250 meters, a horizontal field of view (HFOV) of 120°, and a vertical field of view (VFOV) of 10°. Designed with automotive-grade durability and reliability, it operates stably even in harsh environments and is optimized for long-range forward detection. These features make it ideal for applications such as smart city infrastructure, video security, and autonomous driving.



HIGHLIGHTS

- Wide horizontal field of view(FoV) : 120°
- The sensor offers high detection accuracy and a wide operational temperature range.
- Qualified, robust design for automotive environmental durability.

Sensor Specification

Capable Detection Range	250m
Detection Range (80% Lambertian reflectivity@10Hz)	150 m @ >80% detection probability
Detection Range (10% Lambertian reflectivity@10Hz)	60 m @ >80% detection probability
Minimum Range	0.5 m
Range Accuracy	±5 cm
Precision (1 standard Deviation)	5 cm
Range Resolution	4 mm
Field of View	Vertical: 10° Horizontal: 120°
Vertical Channel	32
Vertical Resolution	0.3125°
Horizontal Resolution	0.176° @ 10Hz
Frame Rate	10 / 20 Hz
# of Returns	up to 3 echos

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)	218,880 pts/s (0.176°, 10Hz)
Data Output	Distance (Coordinate), Intensity
Timing Synchronization	PPS

MECHANICAL/ELECTRICAL

Power Consumption	<12W (Idle)
Operating Voltage	9V ~ 24V
Dimensions	119*95*77mm(W*H*D)
Weight	730g
Mounting	Reference below DRAWING

OPERATIONAL

Operating Temperature	- 40°C ~ 85°C
Storage Temperature	- 40°C ~ 105°C
Ingress Protection	IP69K (with I/O cable attached) (B2 sample)
Shock	IEC 60068-2-27 (Amplitude: 50 g, Shape: 11 ms half-sine, 3 shocks x 6 directions) (B2 sample)
Vibration	IEC 60068-2-64 (Amplitude: 3.45 G-rms, Shape: 10 - 1000 Hz, Mounting: sprung masses, 3 axes w/ 8 hr duration each) (B2 sample)
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), ROS (Linux)
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