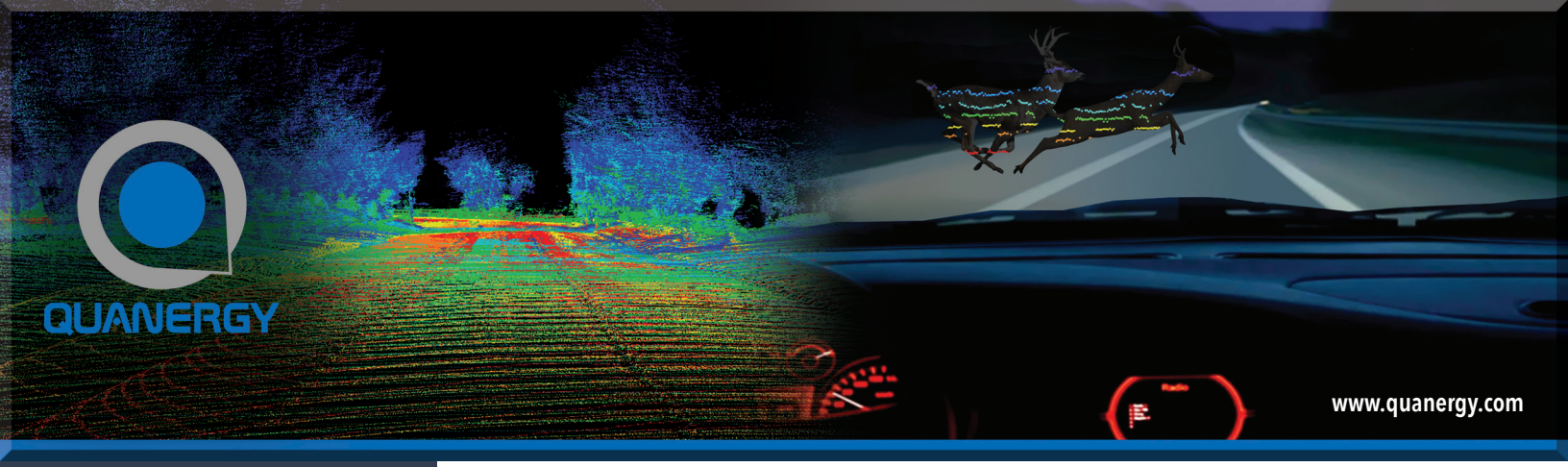


M8 LIDAR SENSOR

Quanergy's M8 LiDAR sensor is a proven LiDAR powerhouse. This compact, rugged sensor, built to the highest quality standards, comes at a breakthrough price through leading edge innovation. With a 360° field of view, long range, high accuracy, fine resolution, high reliability, light weight, and low power consumption, Quanergy's M8 was designed to meet the demands of the most challenging real-world applications. The sensor is operational in sunlight, at night, and works in any weather including rain, snow and dust for high reliability and durability.

The M8 is the first cost-effective, high-definition Time-of-Flight (TOF) LiDAR sensor enabling ubiquitous use of smart sensing in harsh industrial and automotive environments. Multiple laser beams and TOF depth perception result in 3D point clouds for spatial sensing.

Quanergy's 3D sensing M8 LiDAR sensor enables new applications in the security, automotive, transportation, mapping, navigation, surveying, aeronautics, UAV/UAS, robotics, logistics, space management, agriculture, mining, security, and consumer electronics markets that have not been commercially feasible due to the high cost of existing LiDAR sensors.

Quanergy's smart sensing solutions can be applied to a variety of platforms (e.g., vehicles, robots, production tools, monitoring stations) to enable rapid 3D detection, measurement, tracking, identification and classification of items, as well as triggering actions based on real-time scenario analysis powered by advanced perception software.

True 3D mapping on a global scale is made possible with broad deployment enabled by Quanergy's disruptive cost. Vehicle accidents due to blind spots, poor visibility, changes in traffic flow, and distraction can be virtually eliminated through the use of LiDAR in Advanced Driver Assist Systems (ADAS) and autonomous vehicles. Grounds and homes/ buildings can be made more secure and managed intelligently through LiDAR-based surveillance and smart detection. Factories, warehouses and distribution centers can be run efficiently and safely.

DISRUPTIVE DESIGN

Patent-pending technology deliver solutions that are:

- Low cost
- High performance (range, resolution, etc.)
- Uncompromised reliability
- Compact
- Lightweight
- Low power consumption

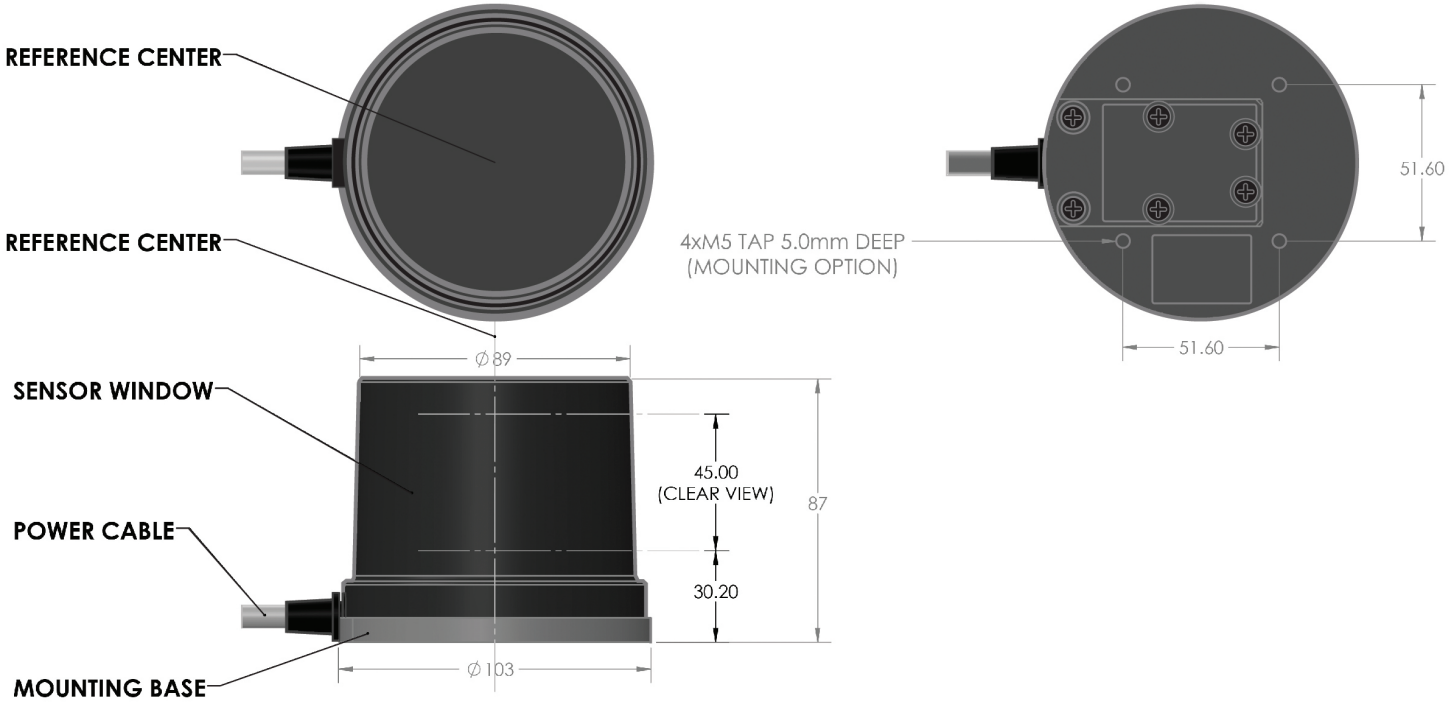
PRODUCT FEATURES

- 8 sensing layers
- Wide Field of View (FOV)
- Long measurement range
- Fine horizontal resolution
- Day and night vision; no IR heat-signature needed
- Resistance to false returns caused by aerosols (dust, mist, rain, snow)
- PPS input signal to timestamp data and for synchronizing multiple sensors
- Light tight design to eliminate cross talk from multiple sensors
- Linux and Windows drivers for easy configuration, integration, and testing
- ROS drivers
- Development kits with a QPU (Quanergy Processing Unit) and visualization/data recording software for easy out-of-the-box operation

M8 SENSOR SPECIFICATIONS

PARAMETER	SPECIFICATION
Laser Class	IEC 60825-1:2007 – Class 1 Laser Product (eye safe)
Wavelength	905 nm
Measurement Technique	Time of Flight (TOF)
Measurement Range	1-200 m (80% reflectivity)
Range Accuracy (1σ at 50 m)	<3 cm
Frame Rate (Update Frequency)	5-20 Hz
Angular Resolution	0.03-0.2° dependent on frame rate
Sensors	8 laser/detector pairs
Field of View (FOV)	Horizontal: 360°, Vertical: 20° (+3°/-17°)
Operating Temperature	-40°C to +70°C (-40°F to +158°F)
Storage Temperature	-40°C to +105°C (-40°F to +220°F)
Nominal Power	18 W
Operating Voltage	24 VDC
Nominal Weight	900 g
Dimensions	103 mm diameter x 87 mm height
Shock & Vibration	ETSI EN 300 019-2-5
Environmental Protection	IP69K – rating for ingress protection against dust and water
Laser Safety	IEC 60825-1:2007 – Class 1 Laser Product
Output Connection	1 Gbps Ethernet
Data Outputs	Angle, Distance, Intensity, Synchronized Time Stamps
Returns	1 Return
Output Rate	420,000 points per second

Specifications are subject to change without notice



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