# GEOLIDAR ALS V2
## (AERIAL LASER SCANNING)

GeoLiDAR

**1** Able to provide data with accuracy up to the centimeter level.

**2** Can be mounted on various types of drones.

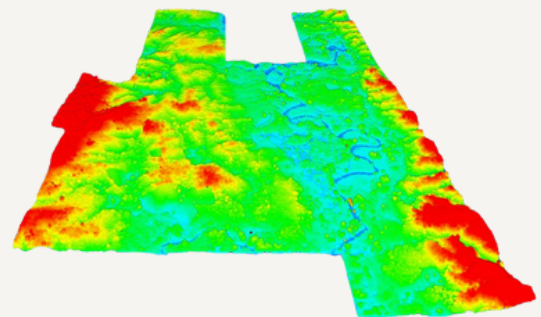**3** Generates high-detail 3D models.

**4** Compatible with various GIS and CAD software.

**5** Compatible for aerial photography using Multirotor and VTOL types.

### Compatible with Products:

**Multirotor**

**VTOL**

## About GeoLiDAR ALS

GeoLiDAR ALS (Aerial Laser Scanning) is a next-generation laser scanning solution specifically designed for high-precision LiDAR point cloud data mapping acquisition. The GeoLiDAR system integrates laser scanning technology, GNSS, IMU, and a storage control unit into one efficient package, making it ideal for implementing 3D spatial information acquisition in surveys, powerline inspections, forestry, agriculture, land planning, and infrastructure development.

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# About GeoLiDAR ALS

GeoLiDAR ALS is a mapping technology that utilizes a laser sensor specifically integrated with UAVs, operating by emitting laser pulses to detect objects. This scanning process calculates and collects topographic information and surface characteristics in detail. The generated data is in the form of a point cloud that creates a 3D model of the Earth's surface, covering elements such as forests, vegetation, and other environmental features. This makes GeoLiDAR ALS highly valuable for environmental monitoring and analysis. By combining GNSS positioning modules, the collected data achieves high accuracy, ensuring precise and reliable mapping results.

| | | |
|---|---|---|
| **Parameters** | Weight | 1015g |
| | Dimensions | 12,5 x 9,8 x 11,4 cm |
| | Measurement Accuracy | Less than 10 cm (110 m AGL). |
| | Operating Temperature | -20 ℃ ~ + 55 ℃ |
| | Power Range | 12V~16V / 20W |
| | Storage Capacity | Micro SD 64 GB - 256 GB |
| **Lidar Unit** | Accuracy Range | 2cm |
| | Measurement Range | 190m@10% Reflectivity |
| | *Laser Class* | 905nm Class1 (IEC 60825-1:2014) |
| | Data Output | Triple-echo, 720,000 Points/Sec |
| | FOV | 70° the circular view |
| **Unit Performance** | Update Frequency | 200HZ |
| | Heading Accuracy | 0,040° |
| | Pitch Accuracy | 0,015° |
| | Rolling Accuracy | 0,015° |
| | Position Accuracy | 0,02 - 0,05m |
| | GNSS Signal Type | GPSL1/L2/L5 GLONASSL1/L2 BDS B1/B2/B3 GAL E1/E5a/5b |
| **Pre-processing Software** | POS Data | Obtained information: position, speed, altitude. |
| | Point Cloud Data | oint cloud data format: LAS format, special TXT format. |
| **RGB Camera** | FOV | 84 Degrees |
| | Resolution | 15 Megapixel |
| | *Trigger event* | By signal autopilot (distance) |
| **Certifications** | TKDN | >25% |