

# LiAir H800

## UAV LiDAR System



LiAir H800 is a next-generation medium-to-long-range UAV LiDAR system developed by GreenValley International. It integrates lightweight LiDAR, a self-developed inertial navigation system, and a built-in high-resolution mapping camera, combining the advantages of lightweight and long-range capabilities. With the support of flight control software GreenValley App and data processing software LiGeoreference, providing more efficient all-in-one solution tasks for power line inspection, forest monitoring, emergency disaster assessment, and more.

### Advantages

#### Lightweight & Long-range

Integrated with lightweight LiDAR, the total weight of the device is 2.2kg, and it can be equipped with M350/M300 RTK for operations. With a data frequency of 1000kHz, it can achieve a maximum range of 1000m. It supports an unlimited number of echoes for data collection, enabling complete terrain data acquisition even in vegetated areas.

#### High Efficiency & High Accuracy

With a horizontal field of view of 100 degrees, at a flight height of 200m, the effective swath width of a single pass is greater than 450m. The system has a repeat ranging accuracy of 5mm, and the vertical positioning error at a flight height of 200m is less than 5cm.

#### Adaptive LiDAR Rotational Speed, Point Cloud Distribution More Evenly

Offer 9 different configurations for flight height, data frequency, and energy settings, the device can adaptively adjust the LiDAR rotation speed to ensure consistent line spacing and point spacing in different survey areas, ensuring uniform distribution of point clouds and preserving the three-dimensional spatial characteristics of objects with greater accuracy.

#### Built-in Camera, Ultra-clear Picture Quality

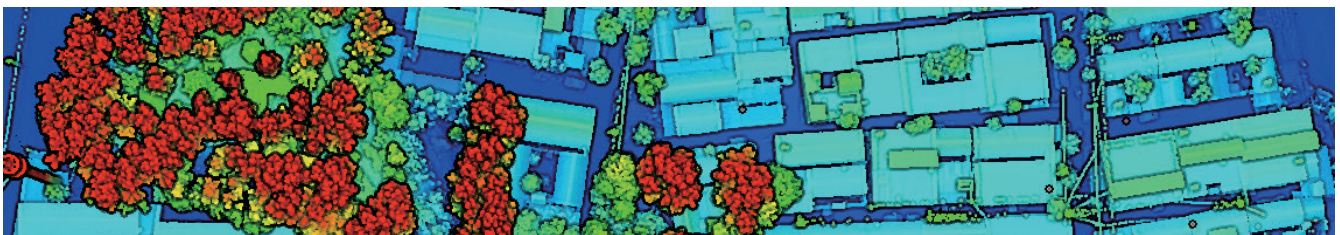
Built-in 26-megapixel high-resolution mapping camera, 200m altitude can obtain 4.7cm resolution images, and can generate high-quality color point clouds, meeting the production requirements for mapping products.

#### Intelligent Flight Control Mode

Intelligent judgment of flight altitude, automatic start of data collection in the air, and automatic stop of collection on the ground, ensure the integrity of the surveyed area while minimizing data redundancy to the maximum extent possible.

#### Support of GreenValley Flight Assistant

GreenValley App supports status monitoring, parameter adjustment and 3D real-time point cloud display. The simpler and clearer design of the interface provides a more convenient flight experience.



# Specifications

## System Parameters

|                       |                        |                     |               |
|-----------------------|------------------------|---------------------|---------------|
| Detection Range       | 350m @ 10% reflectance | Accuracy (Vertical) | ±5cm          |
| Typical Flight Speed  | 5-10m/s                | Memory              | 256GB TF Card |
| Weight                | 2.2kg                  | Voltage             | 18~24V        |
| Power Consumption     | 61W                    | Communication       | WIFI          |
| Operating Temperature | -20~50°C               | Storage Temperature | -30~60°C      |

## LiDAR Unit

|                   |                            |                        |             |
|-------------------|----------------------------|------------------------|-------------|
| Wavelength        | 1535nm                     | Number of Channels     | 3           |
| FOV               | 100°                       | Repeatability Accuracy | 5mm         |
| Number of Returns | Unlimited waveform returns | Data Frequency         | 100-1000KHZ |

## Inertial Navigation System

|                    |                      |                   |        |
|--------------------|----------------------|-------------------|--------|
| GNSS               | GPS, GLONASS, BeiDou | Azimuth Accuracy  | 0.01°  |
| IMU Data Frequency | 1kHz                 | Attitude Accuracy | 0.005° |

## Camera

|            |           |              |                                 |
|------------|-----------|--------------|---------------------------------|
| Pixels     | 26MP      | Focal Length | 16mm/24mm (Equiv. Focal Length) |
| Image Size | 6252×4168 |              |                                 |

## Software

|                  |                                 |                |                |
|------------------|---------------------------------|----------------|----------------|
| Control Software | GreenValley                     | Pre-processing | LiGeoreference |
| Post-processing  | LiDAR360/LiPowerline (Optional) |                |                |

