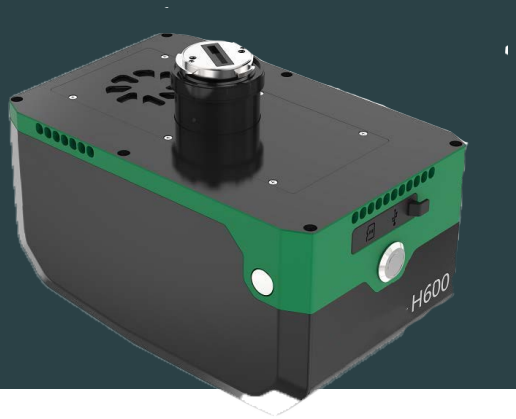
ComNavTech

LiAir H600

UAV LiDAR System



The LiAir H600 is a next-generation lightweight, long-range LiDAR scanning system deve, It integrates compact mapping-grade LiDAR, proprietary high-precision inertial navigation, and a high-resolution mapping camera. The entire system weighs only 1.3 kg and can measure distances up to 800 meters. It is easily adaptable to small rotorcraft and fixed-wing aircraft, significantly enhancing endurance and operational efficiency. Paired with data post-processing software LiDAR360/LiPowerline, it provides an efficient one-stop solution for powerline inspection, forestry resource surveys, and emergency disaster assessment.

Advantages

High-precision mapping LiDAR, excellent point cloud quality performance

- Integrated with mapping-grade single-line LiDAR, it achieves an elevation accuracy better than 5 cm and a point cloud thickness better than 3 cm at an operating altitude of 200 meters.
- Small spot size, concentrated laser pulse energy, supports up to seven returns, effectively penetrating densely vegetated areas to capture complete terrain data beneath the canopy.
- Maximum 550 KHz laser point frequency, 80° horizontal field of view, and an effective swath width greater than 350 m at a working height of 200 meters.

Adaptive configuration of operational parameters for a more uniform distribution of point clouds

Offer 6 different configurations for flight height, data frequency, and energy settings, the device can adaptively adjust the scan speed to ensure consistent line spacing and point spacing in different survey areas, ensuring uniform distribution of point clouds and preserving the 3D spatial characteristics of objects with greater accuracy.

26 MP mapping camera upgraded, supporting real-time video stream transmission

Built-in 26 MP high-resolution mapping camera, capable of capturing images with a resolution of 4.7 cm from an altitude of 200 meters. The camera supports real-time feedback of 720 P / 30 FPS video streams, allowing operators to observe the working environment below in real-time for better control of onsite operations.

Supports GNSS antenna-free solution, simplifying the installation process

When mounting the system on DJI M300/M350 RTK aircraft, there is no need to install external antennas, yet it can still acquire high-precision GNSS information. Post-processing can then generate a centimeter-level high-precision point cloud.

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

Supports operational status monitoring, device parameter configuration, real-time display of 3D point clouds, and camera video streams. This allows for real-time verification of data integrity and the operational status of equipment, enabling prompt identification of issues to avoidineffective operations and data rework, making field operations safer and more controllable.

Specifications

System Parameters			
System Accuracy (Vertical)	±5 cm @ 200 m	Weight	1.3 kg
Voltage	20~30 V	Storage	Standard: 256 GB TF Card Maximum support: 512 GB TF Card
Power Consumption	50 W	Storage Temperature	-40~70 °C
Communication	WiFi / USB-C	Operating Temperature	-20~50 °C
Protection Class	IP64		
LiDAR Sensor Parameters			
Wavelength	1535 nm	Detection Range	267 m @ 10% reflectivity 750 m @ 80% reflectivity
FOV	80°	Repeatability Accuracy	5 mm @ 100 m
Number of Returns	Typically 7 returns	Scan Rate	100,000~550,000 pts/s
Inertial Navigation System			
GNSS	GPS, GLONASS, Galileo, BDS	Azimuth Accuracy	0.019°
IMU Data Frequency	1000 Hz	Attitude Accuracy	0.006°
Camera Parameters			
Pixels	26 MP	Focal Length	16 mm / 24 mm (Equiv. Focal Length)
Image Resolution	6252×4168		
Software			
Control Software	GreenValley	Pre-Processing	LiGeoreference
Post-Processing	LiDAR360 / LiPowerline (Optional)