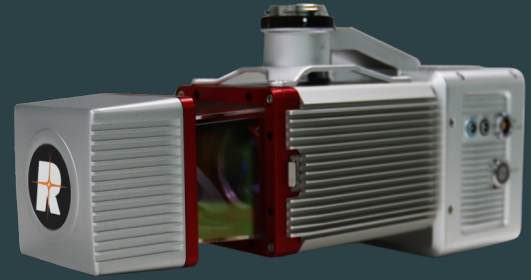


LiAIR 250 Pro

Lightweight UAV LiDAR System



LiAir 250 Pro lightweight UAV LiDAR system is a lightweight professional equipment developed for multi-rotor platforms, integrating a cutting-edge high accuracy lidar sensor, inertial navigation and control systems, collecting high-precision point cloud data and rich image information, which can be widely utilized in surveying and mapping, electric power, forestry, agriculture, land planning, geological disasters, mine safety and other fields to obtain three-dimensional spatial information.

Advantages

■ All-in-one design

Simple operation interface, one-click start of equipment and data acquisition. The engineered data storage mode supports one-time copy of data such as laser camera, one-click processing of imported software, and ultra-efficient operation process.

■ High precision, high quality

The lightweight fuselage is equipped with 360° surround scanning lidar, the maximum ranging can reach 330m, and the precision is 10mm, and the error in the elevation of the system at 100m altitude is less than 5cm.

■ Excellent multi-target detection capabilities

Each laser beam has up to 5 echoes, each echo has 16 bits of high-resolution intensity information, and can also obtain complete ground point clouds in dense vegetation scenes, generating high-resolution DEM and other data results.

■ Built-in camera, ultra-clear picture quality

Built-in 26 Megapixels high-resolution mapping camera, clear and realistic image quality, 200m altitude can obtain 4.7cm resolution images, and can generate high-quality color point clouds and orthophoto results.

■ Adaptive scan speed, point cloud distribution more evenly

By entering parameters such as laser point frequency, flight height, and speed, the device can adaptively set the scan speed to achieve consistent line spacing and point spacing, ensure uniform distribution of point clouds, and more accurately restore the three-dimensional spatial characteristics of ground objects.

■ Intelligent flight control mode

Intelligent judgment of flight altitude, automatic start of data collection in the air, automatic stop of collection on the ground, highly automated while minimizing data redundancy.

Specifications

System Parameters	
Detection Range	330m@80% reflectance
System Accuracy (Vertical)	5cm@100m
Typical Flight Speed	8m/s
Weight	2.1kg
Internal Storage	256GB TF Card
Voltage	12~24V
Power Consumption	24W
Operating Temperature	-10~40°C
Storage Temperature	-20~50°C
Correspondence	WIFI
LiDAR Sensor Technical Parameters	
Laser Sensor	Riegl miniVUX-1 UAV
Returns	5
FOV	360°
Laser Frequency	100KHz
Inertial Navigation System	
Azimuth Accuracy	0.038°
Attitude Accuracy	0.008°
IMU Data Frequency	200Hz
Camera	
Pixels	26 MP
Focal Length	16mm/24mm (equiv.Focal Length)
Image Size	6252×4168
Software	
Pre-Processing	LiGeoreference
Post-Processing	LiDAR360