

LiAIR 220

UAV-Mounted LiDAR Scanning System



The LiAIR 220 is an all-new upgrade based on the LiAIR series product LiAIR220N. It features an integrated design that combines a 40-line circular scanning LiDAR, an inertial navigation system, and a built-in high-resolution mapping camera. It can be used in various fields, such as powerline inspections, emergency mapping, and forestry resource surveys. The new hardware design enables more efficient large-scale 3D laser data collection.

Advantages

I Highly Integrated Design

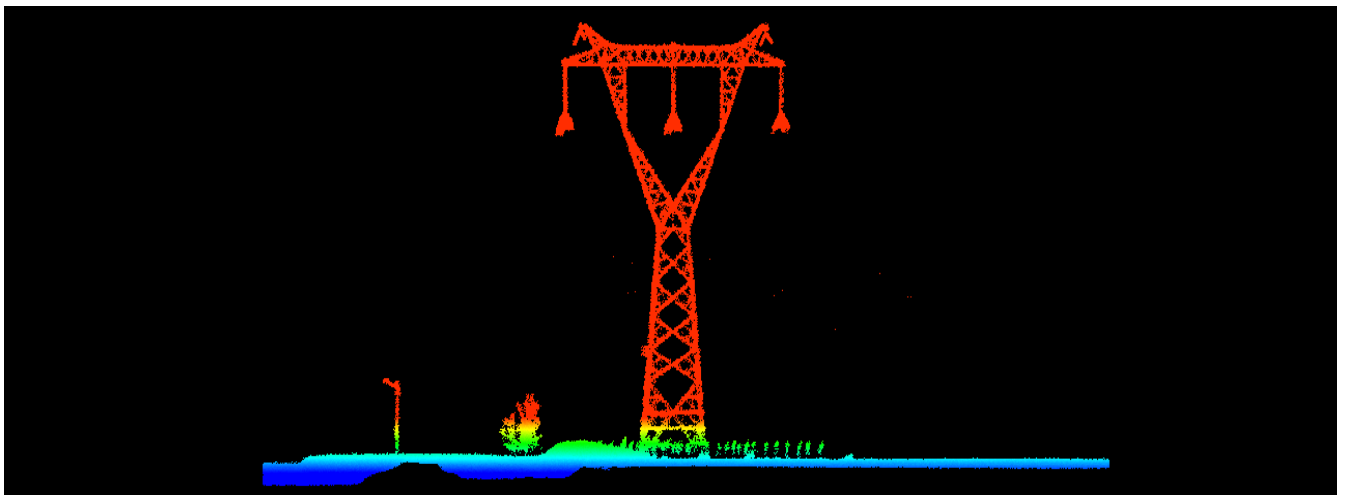
Simplifies equipment operation with indicator lights, making it more user-friendly. The system uses a pluggable TF card for storage and adopts an engineering data storage mode, allowing for one-time copying of laser and camera data and one-click processing.

I Mapping Camera with Ultra-HD Quality

The system includes a built-in 26MP high-resolution mapping camera and reserves an external camera interface, supporting multiple camera types, such as infrared cameras, to meet various mapping product requirements.

I Supports GreenValley Flight Assistant

Enables operation status monitoring, device parameter configuration, and real-time 3D point cloud display. The new interface design offers a more user-friendly flight operation experience.



Specifications

System Parameters

Detection Range	200 m @ 10% reflectivity	System Accuracy (Vertical)	±5 cm
Recommended Working Altitude	150 m	Typical Flight Speed	5-10 m/s
Weight	2.1 kg	Storage	256GB TF card
Voltage	12~24 V	Power Consumption	24 W
Operating Temperature	-20~50 °C	Storage Temperature	-30~60 °C
Communication	WiFi		

LiDAR Sensor Parameters

Wavelength	905 nm	Number of Channels	40
Scan Rate	720,000 pts/s (Single Return) 1,440,000 pts/s (Dual Return)	FOV	360° (Horizontal)×40° (Vertical)
Range Accuracy	±2 cm	Number of Returns	2

Inertial Navigation System

GNSS	GPS, GLONASS, Galileo, BDS	Azimuth Accuracy	0.038°
Attitude Accuracy	0.008°	IMU Data Frequency	200Hz

Camera Parameters

Pixels	Control Software	26 MP	Image Resolution	6252x4168
Focal Length		16 mm / 24 mm equivalent		

Software

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

