

LiAir X3-H

Enhanced Lightweight UAV LiDAR System



LiAir X3-H is the newest compact, high-performance unit in the LiAir series by GreenValley International. It adopts a new integrated design style and integrates lightweight LiDAR, self-developed inertial navigation, a high-resolution mapping camera and on-board computer systems providing new levels of efficiency.

Advantages

■ Lightweight & Simple

Integrated simple yet rugged design, allowing for protection against the elements with an IP54 rating. The operation interface is straightforward, allowing one touch operation for maximum efficiency.

■ New Camera, providing ultra-clear picture quality

Built-in new high-resolution custom mapping camera, the image resolution is upgraded from 24 Megapixels to 26 Megapixels, allowing for high-quality true-color point clouds as well as orthophotos for Photogrammetry.

■ LiPlan Flight Assistance Software, making field work easy

LiPlan supports real-time point cloud display, parameter adjustment, and status monitoring. It can be directly installed on the M300 RTK remote controller and used in conjunction with the X3-H to help operators control the site conditions in real time.



Specifications

System Parameters

Detection Range	190m @ 10% reflectance 450m @ 80% reflectance	System Accuracy (Vertical)	5cm @ 70m
Dimensions	136*106*129mm	Typical Flight Speed	5-10 m/s
Weight	1.25kg	Internal Storage	256G TF Card
Voltage	12~24V, 0.9A @ 24VDC	Power Consumption	22W
Operating Temperature	-20~50°C	Storage Temperature	-30~60°C

LiDAR Sensor Technical Parameters

Wavelength	905nm	Laser Class	Class1
Range Accuracy	2cm (1σ@20m)	FOV	70.4°(Horizontal) ×4.5° (Vertical)
Scan Rate	720,000 points/s (Triple return)	Returns	Triple Return
Scan Method	Repetitive Scan		

Inertial Navigation System

GNSS	GPS, GLONASS, BeiDou	Azimuth Accuracy	0.038°
Attitude Accuracy	0.008°	IMU Data Frequency	200HZ

Camera

Image Sensor	APS-C	Pixels	26 Megapixels
Focal Length	16mm/24mm (Equiv. Focal Length)	Image Size	6252 x 4168

Software

Post-Processing	LiDAR360	Pre-Processing	LiGeoreference
Flight Planning and Control Software	LiPlan		

