

LiAIR X3

Enhanced Lightweight UAV LiDAR System



LiAir X3 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 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*138mm	Typical Flight Speed	2-10 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	240,000 points/s (Single return)	Returns	Up to 3 returns
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	Image Size	6252 x 4168

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

