

LiAir V-70

The LiAir V-70 is a light-weighted UAV- or sUAS-mounted LiDAR survey instrument designed and produced by GreenValley International (GVI). This system features a Livox AVIA laser scanner and it is one of the most cost-effective LiDAR system in GVI's LiAir Series. This lightweight 3D surveying and mapping payload was designed with DJI's Matrice 600 Pro & DJI M300 RTK & DJI's Matrice 210 series platforms. LiAir V-70 is able to provide highly accurate 3D point cloud data and is a great fit for applications in a wide variety of industries including forestry. And it also provides an option to be equipped with a high-definition digital camera, which can be used to generate photogrammetry products as well as true color 3D point clouds.

Specifications

Laser Sensor	Livox AVIA
Range Accuracy	± 2 cm
Detection Range (@100 klx)	190 m @ 10% reflectance
	230 m @ 20% reflectance
	320 m @ 80% reflectance
System Accuracy	± 5 cm
POS System Performance	Attitude: 0.008° (1σ)
	Azimuth: 0.038° (1σ)
Onboard Storage	128 GB
Mounting Platform	DJI's Matrice 600 Pro, M300 RTK & M210
Camera (Optional)	Sony A5100
Weight (excl. battery)	0.9 kg (Excl. Camera) 1.1 kg (Incl. Camera)
Dimensions (Incl. Camera)	178 * 81.6 * 140.2 mm
Route Planning Software	LiPlan (proprietary)
Acquisition/PP POS Software	LiAcquire web & LiGeoreference
Field of View (Repetitive Scanning Pattern)	70.4°
Scan Rate	240,000 pts/s (first return) 480,000 pts/s (dual return) 720,000 pts/s (triple return)



Acquisition & GNSS/INS Post-Processing Software

LiAcquire web version is used for system parameters setting, working status monitoring, system activation, etc. LiGeoreference processes GNSS/INS data to generate scanning trajectory in cm-level accuracy, uses it to georeference point clouds and images, and outputs the quality report for performance evaluation.



Mission Planning Software

LiPlan is a UAV ground station application designed for LiAir series. LiPlan automates flight route generation following user-defined Region of Interest and surveying parameters, and with the one-button take-off design, LiPlan auto-pilots through the calibration figure-8 maneuvers and data acquisition flight routes.