

# Z-Lab LiDAR-eco Pro

*An Economical Solution Tailored to LiDAR Beginners*

- scanner accuracy down to 2 cm optimal
- measuring range up to 450 m maximum
- scan rate at maximum 720,000 pts per sec



*"With remarkable scanning range, point density and measuring accuracy, Z-Lab LiDAR-eco Pro is an economical UAV-based solution suited to those dedicated surveyors starting LiDAR business, as it features amazing performance at a comparably affordable rate." said Dr. Ruofei Zhong, CEO of Z-Lab LiDAR.*



Plan



Capture



Process



Map



Z-Lab LiDAR



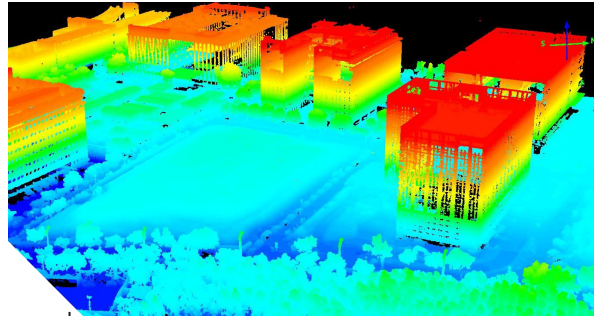
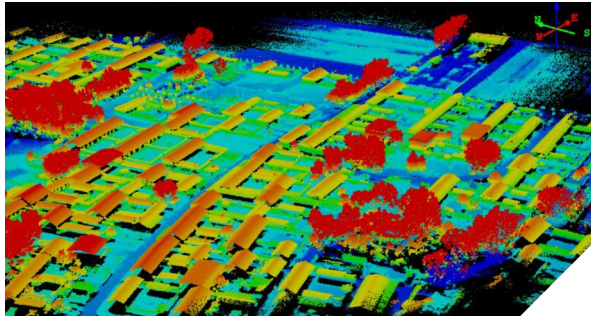
Option 1: DJI Matrice 600 Pro  
(to fit LiDAR-eco Pro + camera)



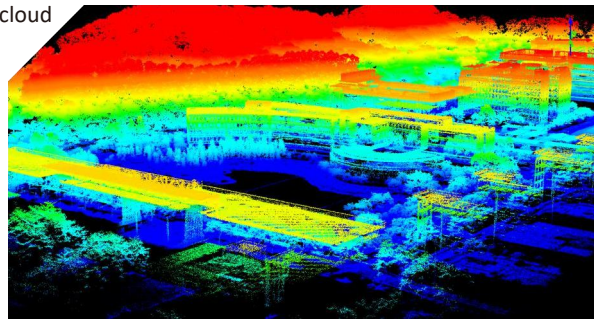
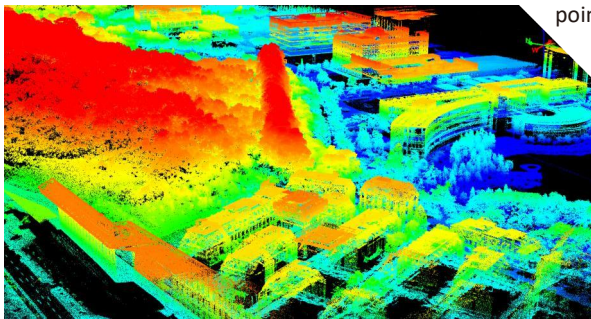
Option 2: DJI Matrice 200 V2  
(to fit LiDAR-eco Pro only)



Option 3: DJI Matrice 300 RTK  
(to fit LiDAR-eco Pro only)



geo-referenced  
point cloud



*Model Code*..... LiDAR-eco Pro  
*Application Mode*..... UAV-based recommended  
*Field of View*..... 70.4° (H.) × 77.2° (V.)  
*Net Weight (w/o camera)*.... approx. 950 g  
*Dimensions (LxWxH)*..... 71 x 100 x 145mm  
*Power Consumption*..... 20-50 W  
*Input Voltage*..... DC 12-30V  
*Operating Temperature*..... 0°C up to +40°C  
*Storage Temperature*..... -20°C up to +50°C  
*Constellation Support*..... GPS/Glonass/Beidou  
*Gyroscope Bias Stability*..... ±3 deg/hr  
*Gyroscope Range*..... ±490 deg/sec in all axis  
*Accelerometer Range*..... ±16 g in all axis

*Scanner Type*..... solid statesensor  
*Laser Safety*..... Class 1 (IEC 60825-1:2014)  
*Laser Wavelength*..... 905 nm  
*Scanner Ingress Protection*..... P 67  
*Scanner Precision*..... optimal 2 cm ①  
*Absolute Accuracy*..... down to 5cm, typical 10-20 cm ②  
*Angular Resolution*..... <0.05 deg(1σ)  
*Measuring Range*..... max. 450 m @ 80% reflectivity  
*Scanning Height*..... typical 50-200 m, best below 150 m  
*Number of Echoes*..... max. 3returns  
*Measurement Rate*..... 480,000 pts per sec (dual return); 720,000 pts per sec (triple return)

The specification above will be subject to change without prior notice.

**Note:**

- ① It was obtained in an environment of 25°C with a target of 80% reflectivity 20 meters away. The result might vary under different actual conditions.
- ② The performance will vary depending on the flight altitude, pulse reflectivity, vegetation density, terrain feature, etc.

