

# Z-Lab LiDAR-eco

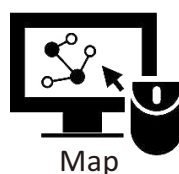
*An Economical Solution Tailored to LiDAR Beginners*

- scanner accuracy down to 2 cm optimal
- measuring range up to 260 m maximum
- scan rate at maximum 480,000 pts per sec



*"With remarkable scanning range, point density and measuring accuracy, Z-Lab LiDAR-eco 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.*

( V. 2020AUG )







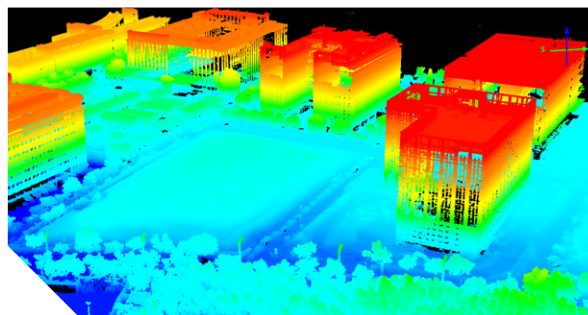
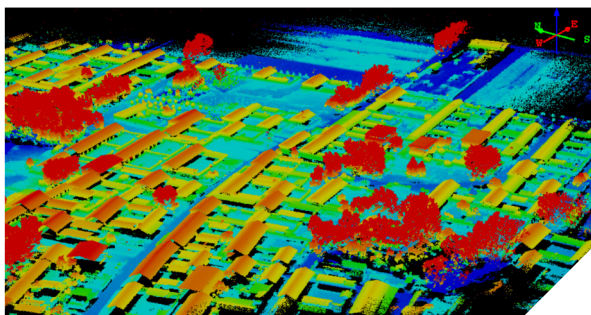
Option 1: DJI Matrice 600 Pro  
(to fit LiDAR-eco + camera)



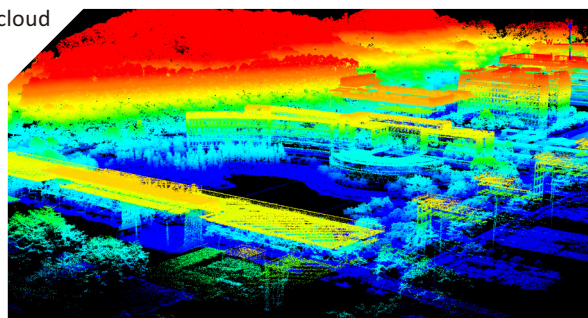
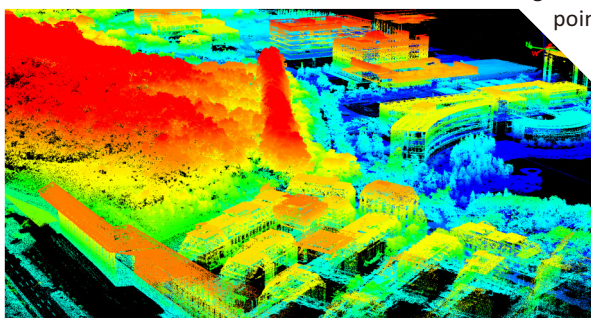
Option 2: DJI Matrice 200 V2  
(to fit LiDAR-eco only)



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



geo-referenced  
point cloud



Model Code..... LiDAR-eco  
 Application Mode..... UAV-based recommended  
 Field of View..... 81.7° (H.) × 25.1° (V.)  
 Net Weight (w/o camera)... approx. 1.59 kg  
 Dimensions (LxWxH)..... 77 x 115 x 208 mm  
 Power Consumption..... 20-50 W  
 Input Voltage..... DC 12-30 V  
 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 state sensor  
 Laser Safety..... Class 1 (IEC 60825-1:2014)  
 Laser Wavelength..... 905 nm  
 Scanner Ingress Protection... IP 67  
 Scanner Precision..... optimal 2 cm <sup>①</sup>  
 Absolute Accuracy..... down to 5cm, typical 10-20 cm <sup>②</sup>  
 Angular Resolution..... <0.05 deg (1σ)  
 Measuring Range..... max. 260 m @ 80% reflectivity  
 Scanning Height..... typical 10-200 m, best below 100 m  
 Number of Echoes..... max. 2 returns  
 Measurement Rate..... 240,000 pts per sec (single return); 480,000 pts per sec (dual 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.



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