



LiBACKPACK DG50

Mobile Handheld 3D Mapping System

LiBackpack DG50

LiBackpack DG50 is an upgraded version of GreenValley International's dual-sensor laser scanning system. With a GNSS module onboard, the LiBackpack DG50 provides 3D point cloud model with highly accurate absolute positioning information. With just a 500 grams increase in weight, the newly designed LiBackpack DG50 gives you absolute positioning function along with all the advantages of LiBackpack D50.



Specifications

| | |
|---------------------------|---|
| Laser Sensor | Velodyne VLP-16*2 |
| Scan Range | 100 m |
| System Relative Accuracy | ≤ 3cm* |
| Operation & Data Transfer | WiFi connection (mobile phone, tablet) |
| | Wired Ethernet connection (tablet) |
| Onboard Storage | 512 GB |
| Ports Available | HDMI, Ethernet & USB |
| Operation Time | ~2 hour w/ DJI TB48S battery |
| Weight | 9.3 kg without battery |
| Dimensions | 1085*300*150 mm |
| Typical Ground Speed | 1 m/s |
| Max. Power Consumption | 85 w |
| WiFi Band | 2.4 GHz |
| Scan Rate | 600 kHz |
| FOV | V: -90° to +90° \ H: 360° |
| Display | UI via mobile device |
| GNSS Positioning Accuracy | 1 cm + 1 ppm |
| System Absolute Accuracy | ≤ 5cm* |
| GNSS Signals | GPS: L1 C/A, L1C, L2C, L2P, L5 GLONASS: L1 C/A, L2C, L2P, L3, L5 BeiDou: B1, B2 |
| Outputs Data Format | Las, Laz, LiData, ply |

*Affected by scanning route and environment.



Highly Accurate Positioning Information

The relative accuracy of the collected point cloud is ≤ 3 cm, and the absolute positioning accuracy after being post-processed by DG 50's complementary software LiBackpack is ≤ 5 cm.



Indoor and Outdoor Scanning Capability

A combination of outdoor and indoor environment can be handled by DG50 with a well-planned scanning route.



Improved SLAM Solution

The 3D modeling performance of DG50's SLAM solution is improved by integrating the absolute positioning information provided by the GNSS module.