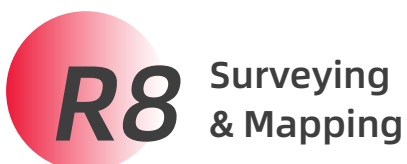




Mobile SLAM **COLOR**

3D Laser Scanner



Surveying
& Mapping

World-Realistic Color · Precision Level (cm)
Rotating Single Lidar

R8-Surveying & Mapping · World-Realistic Color · Precision Level (cm)

R8 is a tool that can be handheld, wearable, and vehicle-on which allows to be widely used in various fields, such as real 3D, topographic mapping, water conservancy surveys, completion surveys, traffic surveys, mine surveys, facade surveys, underground space mapping, power inspections, and forestry surveys, etc.



2cm
Repeatability Accuracy



RTK-SLAM
PPK-SLAM



0.015° Horizontal &
Vertical Accuracy Error



Accuracy Report &
GCP Inserting Instruction



PARAMETER

| | | | |
|---|----------------------------------|--|---|
| Relative Accuracy ¹ | 1cm | CORS System/GNSS Receiver | √ |
| Absolute Accuracy ² | Horizontal 1.8cm, Vertical 2.5cm | SAOC ⁶ | √ |
| 5A Criteria of Surveying and Mapping ³ | √ | LIO-PANO ⁷ | √ |
| Repeatability Accuracy ⁴ | 2cm | RTK-SLAM ⁸ | √ |
| Horizontal/Vertical Accuracy Error | 0.015° | PPK-SLAM ⁹ | √ |
| Point Cloud Density ⁵ | 40,000 pts/m ² | LiRF ¹⁰ | × |
| Point Cloud Thickness | 1cm | 3D Real Scene Mesh Models | × |
| Image Sensor | 1inch SONY CMOS*2 | 3D Thermal Map of Point Cloud Accuracy | √ |
| Camera Field of View | 360° | Accuracy Report | √ |
| Lens | Leica F2.2*2 | GCP Inserting Instruction | √ |
| Moving Objects Removal | √ | | |

MODEL

| | R8-16 | R8-32/300 |
|-------------------|---------|-----------|
| Laser Channels | 16 | 32 |
| Measure Range | 120m | 120m/300m |
| Points per Second | 320,000 | 640,000 |

1/2/4. Scenes with weak quantity and quality can impact **Repeatability Accuracy**, **Relative Accuracy**, and **Absolute Accuracy**, it's better to acquire the accurate point clouds according to the working methods which are recommended by the manufacturer.

3. **5A Criterion of Surveying and Mapping**: In the geogspatial information, anyone, at any time, using any device, following any route, and scanning any scene, can obtain the unique result of point clouds.

5. **Point Cloud Density**: Products can approach to the maximum density of point clouds.

6. **SAOC**: Self-Adaptive Online Calibration.

7. **LIO-PANO**: Online colorization technology with multi-model fusion of lidar and panoramic camera.

8. **RTK-SLAM**: RTK-SLAM(Real-Time Kinematic), an unique type of Tightly Coupled Complementary Filtering Algorithm.

9. **PPK-SLAM**: PPK-SLAM(Post-Processed Kinematic), an innovative type of Tightly Coupled Complementary Filtering Algorithm.

10. **LiRF**: Lidar Radiance Fields.

