



# Mobile SLAM **COLOR**

## 3D Laser Scanner



**R8+**

Accurate  
Modeling

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

## R8+ Accurate Modeling · World-Realistic Color · Precision Level (mm)

R8+ is an equipment which is handheld, wearable , and vehicle-on. It is widely used in various fields, such as cultural relics protection, real 3D, topographic mapping, water conservancy surveys, completion surveys, traffic surveys, mine surveys, facade surveys, underground space mapping, power inspections, and forestry surveys, etc.



2mm Point Cloud Thickness



mm Level Accuracy of Dynamic Scanning



Pixel-level Texture



Auto-Modeling 3D of Real Scene Mesh Models



### PARAMETER

Relative Accuracy <sup>1</sup>	mm (Dynamic/Static Scanning)	CORS System/GNSS Receiver	√
Absolute Accuracy <sup>2</sup>	Horizontal 1.8cm, Vertical 2.5cm	SAOC <sup>6</sup>	√
5A Criteria of Surveying and Mapping <sup>3</sup>	√	LIO-PANO <sup>7</sup>	√
Repeatability Accuracy <sup>4</sup>	2cm	RTK-SLAM <sup>8</sup>	√
Horizontal/Vertical Accuracy Error	0.005°	PPK-SLAM <sup>9</sup>	√
Point Cloud Density <sup>5</sup>	250,000 pts/m <sup>2</sup>	LiRF <sup>10</sup>	√
Point Cloud Thickness	2mm	3D 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+32	R8+300
Laser Channels	32	32
Measure Range	120m	300m
Points per Second	640,000	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.

