



# Mobile SLAM **COLOR**

## 3D Laser Scanner



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 Clouds



2mm Accuracy of  
Dynamic Scanning



Pixel-level  
Texture



Auto-Modeling 3D  
Real Scene Mesh Models



### PARAMETER

Relative Accuracy <sup>1</sup>	2mm (Dynamic/Static Scanning)	Movable Objects Removal	√
Absolute Accuracy <sup>2</sup>	Horizontal 1.8cm, Vertical 2.5cm	CORS System	√
5A Criteria of Surveying and Mapping <sup>3</sup>	√	LIO-PANO <sup>6</sup>	√
Repeatability Accuracy <sup>4</sup>	2cm	RTK-SLAM <sup>7</sup>	√
Horizontal/Vertical Accuracy Error	0.005°	PPK-SLAM <sup>8</sup>	√
Point Cloud Density <sup>5</sup>	250,000 pts/m <sup>2</sup>	LiRF	×
Point Cloud Thickness	2mm	3D Real Scene Mesh Models	×
Imager 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	√

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 cloud results according to the working methods which are recommended by the manufacturer.

3. 5A Criteria of Surveying and Mapping: In the geospatial 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. LIO-PANO: Online colorization technology with multi-model fusion of lidar and panoramic camera.

7. RTK-SLAM: Tightly coupled complementary filtering algorithm of Real-Time Kinematic.

8. PPK-SLAM: Tightly coupled complementary filtering algorithm of Post-Processed Kinematic.

9. LiRF: Lidar Radiance Fields.

