GEOFIX

LiFist F300 is the latest generation of the handheld series, which is designed in a minimalist style with a compact body, lightweight handheld, easy operation and flexible installation. Equipped with a variety of sensors, it can quickly capture a wide range of scene data. Supports backpack, vehicle-mounted and airborne multi-platform and multi-mode operation. Support PPK-SLAM, RTK-SLAM and pure SLAM and other high-precision mapping methods, which can quickly obtain point cloud data with absolute coordinates. Together with LiDAR 360, LDAR 360MLS can solve the last-mile problems in mapping, mining, forestry, road parts census and other scenarios.

Product Features

- **300 metre rangefinding**
- **640,000 dots/second**

Lifist F300 **laser has a range of up to 300 metres and a dot frequency of up to 640,000 dots per second.**

Three Mapping Methods

RTK-SLAM, PPK-SLAM, SLAM three kinds of high-precision mapping methods let you work in unlimited scenarios.

- **RTK-SLAM**: Suitable for areas with CORS signals, allowing you to directly obtain accurate point clouds with absolute coordinates.
- **PPK-SLAM**: For areas not covered by CORS signals, you can choose to set up a reference station or use green earth cloud traces to get point clouds with absolute coordinates.
- **SLAM:** You can get the point cloud with absolute coordinates by GCP control point bring-in (if you don't need the point cloud with absolute coordinates, you can collect it directly).

Multi-platform mounting
Support handheld, backpack, vehicle-mounted, airborne and other operating platforms to achieve full coverage of different scene acquisition needs and further improve operational efficiency.
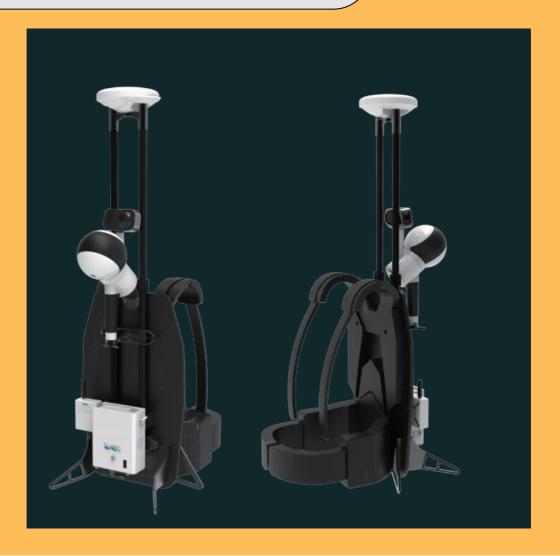
Real-time processing
-Scanning and processing at the same time, LAS results can be exported and used immediately. With RTK, you can obtain point clouds with absolute coordinates.

1-inch CMOS Camera for Sharper Images
The F300 adopts the INSTA ONE RS LEICA camera, a 1-inch CMOS camera that supports 6K resolution and delivers excellent performance indoors and in low-light environments. The metal cooling structure allows the camera to dissipate heat quickly, and the camera is detachable.

1.6kg lightweight body

Gross Weight: 1.60kg

Specifications

System Parameter

Handheld Size	L195mm x W125mm XH350mm	Voltage	15.2V
Battery box size	L134mm x W64.6mm x H167mm	Storage Space	512G
Handheld Weight	1.67kg (ucluding dot base and camera)	Battery Volume	5870mAh
Protection Level	IP54	Single battery working time	3h
Port	USB,Network Port	Suitable Envoriment	Indoor Outdoor multiple environment
Continuous Scanned time	Max 55min		

Lidar Parameters

Scanning frequency	64W dot/Second	Measuring distance	up to 300 meters
Lidar Accuracy	Up to 1cm	Scanning field of view	

Camera Parameters

camera type	INSTA ONE RS 1 Inch panaromic version	Photo Resolution	6528*3264
Data Format	MP4 INSV	Video Resolution	6144*3072
camera size	L95mm xW60mmxH55mm (Including heat dissipation structure)		
CMOS size	1 inch		

RTK Module

Satellite system	GPS+BDS+Glonass+Galileo+QZSS，supoorts 5 satellites 16 frequencies		
RTK aoouraoy	1cm+Ippm	RTK Agreement	NTRIP Agreement
size	L97mm*W71mm*H30mm	Weight	190g
RTK data fomat	.rtk	GNSS raw Data Format	.log
Compatibility	PPK support H300, H120; RTK supports H300, H120		
Mapping method			
Principle of mapping	RTK-SLAM、PPK-SLAM、Pure SLAM	Real time solution	supported

Data Result

Relative precision	Up to 1cm	Absolute Precision	<= 5cm
Point cloud format	Las, LiData		
* need to buy extra			