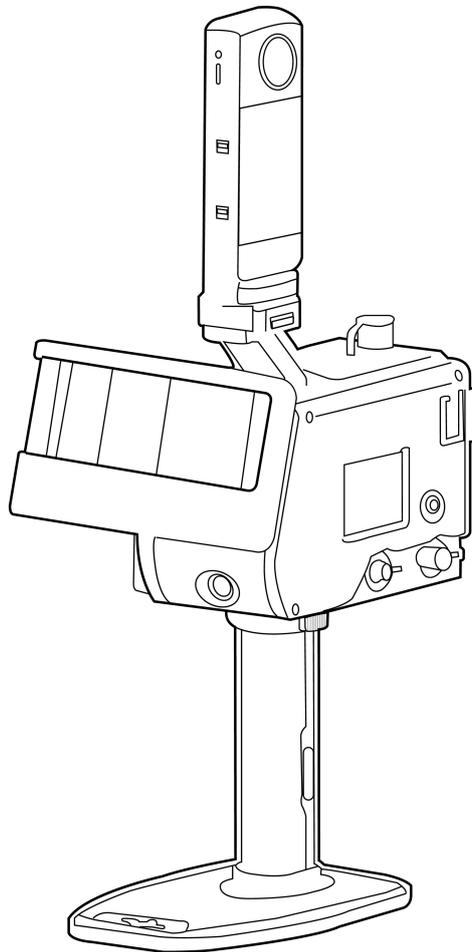


Product User Manual

T-i Series



GOSLAM[®]

The pictures in this manual are for reference only. Please refer to the actual product in the package. Before using the product, please read this manual carefully and keep it properly.

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Reading Tips

Symbol Description



Important notes



Operation and using tips



Vocabulary explanation and reference information

Install GoSLAM LidarWorks

- ◆ To view the point cloud data, you need to install the official provision of designated GoSLAM LidarWorks.
- ◆ GoSLAM LidarWorks requires Windows 7 or Windows 10 or Windows 11 system.

Install GoSLAM Manager APP

- ◆ To collect the data, you need to install the official GoSLAM Manager APP on your Android phone.
- ◆ Connect the device via WIFI to observe the data-collection status in real time.

Precautions For Use

Working Environment



Dangerous

To avoid the risk of fire/electric shock and ensure long-term stable operation of the product. Please store the product in dry and cool place, avoid direct sunlight and storage in high temperature and humidity environments.



Warning

As the laser head and sensor are sensitive devices, dry the device after operation under rainy or humid environment to avoid electronic components and laser head get mildewed.

Equipment Cleaning And Maintenance

- ◆ In order to ensure the quality of point cloud acquisition, please keep the laser head clean and use the laser head with extra care.
- ◆ Use the device at normal ambient temperature and avoid exposing it to extreme temperatures. Otherwise, it is likely to shorten battery life or cause unpredictable risks.
- ◆ The internal wiring connection is complicated, please do not disassemble and re-assemble the scanner system without authorization, so as to avoid problems such as failure and short circuit, which will affect the use.
- ◆ Please avoid rough use, disassembly, modification, physical impact on this product, or to avoid impact on this product due to pounding, falling, or trampling.
- ◆ Keep the device out of the reach of children.

Product Introduction

Product Overview

The operation of T-i Series is based on the principle of laser SLAM. It relies on its own posture data and laser point cloud to restore three-dimensional data through algorithm. It can present complete and accurate data without the need using external positioning devices such as GPS, and the operation is very simple.

Features

1. High precision
2. Real-time display of point cloud
3. Indoor and outdoor scanning
4. Performance guarantee in large-scale scenario
5. Real-time processing
6. All-in-one design
7. Dual-platform processing

Working Principle

1. The T-i Series products consist of multi-lines LiDAR and Inertial Measurement Unit (IMU).
2. Using SLAM algorithm, T-i Series products integrate data from LiDAR and IMU to generate accurate 3D point clouds without relying on GNSS receivers.

Technical Specifications

Product name	T50i	T100i	T100i Pro	T300i Pro
Laser class	Class 1	Class 1	Class 1	Class 1
Laser lines	16 lines	16 lines	32 lines	32 lines
Panoramic camera	8k level	8k level	8k level	8k level
Visual SLAM	Support	Support	Support	Support
Scanning distance	50m (farthest)	120m (farthest)	120m (farthest)	300m (farthest)
Scanning speed	320000 points/second	320000 points/second	640000 points/second	640000 points/second
Scanning range	360°X285°	360°X285°	360°X285°	360°X285°
Solution method	Device side processing/Desktop processing	Device side processing/Desktop processing	Device side processing/Desktop processing	Device side processing/Desktop processing
Point accuracy	1cm (maximum)	1cm (maximum)	1cm (maximum)	1cm (maximum)
Resolution	2mm (maximum)	2mm (maximum)	2mm (maximum)	2mm (maximum)
IP level	65	65	65	65
Scan positioning	SLAM technology (without GPS)	SLAM technology (without GPS)	SLAM technology (without GPS)	SLAM technology (without GPS)
Working time	2h	2h	2h	2h
Working temperature	-35°C~50°C	-35°C~50°C	-35°C~50°C	-35°C~50°C
Working status	Color touch screen /APP	Color touch screen /APP	Color touch screen /APP	Color touch screen /APP
Internal hard disk	500G	1TB	1TB	1TB
External Third-party RTK	Support	Support	Support	Support
Built-in RTK module	Full Frequency,Single Beidou(Optional)	Full Frequency,Single Beidou(Optional)	Full Frequency,Single Beidou(Optional)	Full Frequency,Single Beidou(Optional)
Built-in RTK(RMS)	Plane 0.8cm+1ppm / Elevation 1.5cm+1ppm	Plane 0.8cm+1ppm / Elevation 1.5cm+1ppm	Plane 0.8cm+1ppm / Elevation 1.5cm+1ppm	Plane 0.8cm+1ppm / Elevation 1.5cm+1ppm
Product shell	Aviation grade aluminum	Aviation grade aluminum	Aviation grade aluminum	Aviation grade aluminum
Weight (host)	1.69kg	1.69kg	1.69kg	1.39kg
Product size	26x12.98x29.15cm	26x12.98x29.15cm	26x12.98x29.15cm	26x12.98x28.25cm

Battery Specifications

Rated Voltage	14.4V
Capacity	3300mAh

Host Power Adapter Specifications

Cord length	1.8m
Input	110-240V~2.0A 50/60Hz
Output	19V 7.89A

Specification Of Battery Charging Dock

Input Voltage	9~24VDC (The input voltage should be greater than the maximum charging voltage of the battery 1V)
Charging voltage	0-16.8V
Battery Slot	2 pcs

Safety Instructions



Tips

Please read and follow the instructions carefully before using the product and refer to any relevant national and international safety regulations in the meantime.



Warning

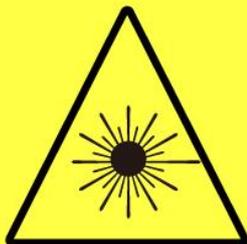
To reduce the risk of electric shock and avoid violating warranty regulations, do not disassemble or modify the radar without permission. This product does not include user-repairable parts, please consult the maintenance personnel of GoSLAM about the warranty and maintenance matters.



Attention



Use of controls, adjustment methods or working procedures other than those specified in this product may result in harmful radiation leakage



CLASS 1 laser products

The laser safety level of this product meets the following standards:

- IEC 60825-1:14
- 21 CFR 1040.10 and 1040.11 standards, with the exception of deviations as described in Laser Notice No.56 dated 8 May 2019 (IEC 60825-1 Third edition)

Equipment Safety Instructions

◆ Laser safety class

The laser safety class of this product meets the following standards:

IEC 60825-1:2014

21 CFR 1040.10 and 1040.11 standards, in any case, other than the deviation matters (IEC 60825-1 third edition) as described in Laser Notice No.56 issued on 8th May 2019, do not look directly at the laser in transit via amplifying devices such as a microscope or head mounted magnifying glass or any kind of magnifiers.

◆ Safety warning

In any case, if you suspect that the Product is faulty or damaged, please stop using the product immediately to prevent injuries to the user or further damage to the product. Please contact GoSLAM or its authorized agencies to deal with the damaged product.

◆ Operation

This product is made of metal, glass and plastic, and contains sensitive electronic components. Improper operations such as falling, burning, puncturing, or squeezing may cause damage to product. Once the product drops, please stop using it immediately and contact GoSLAM for technical support.

◆ The appearance

The product contains high-speed rotating components. Do not operate the scanner without fastening it. Do not use products with damaged appearance to avoid injury.

To avoid performance degradation, do not touch the light cover with your hands. If the hood is stained, clean it as described in the "Equipment Storage" section of the manual.

◆ Eye Protection class

Although the product is designed to meet Class 1 eye safety standards, do not look directly at the laser in transit via amplifying devices, such as a microscope head mounted magnifier or any kind of magnifiers. Besides, to maximize self-protection, users should still avoid looking directly at the product in running.

◆ Maintenance

Do not open or repair the product yourself without official guidance. Dismantling the product may result in product damage, waterproof performance failure or personal injury.

◆ Power supply

Please use the batteries provided by GoSLAM to supply power. Otherwise, if cables or adapters that do not meet the power supply requirements or have been damaged, or if power is supplied in a humid environment, fire, electric shock, personal injury, product damage or other property losses may occur.

◆ Vibration

Strong vibration should be avoided to cause any damage to device. If you need the mechanical shock and vibration performance parameters of the product, please contact GoSLAM for technical support.

◆ Radio frequency interference

Although the product is being designed, tested and manufactured under the relevant regulations of RF energy radiation, radiation from the product may still cause malfunction to other electronic equipment.

◆ Interference of medical equipment

Some components and radio devices contained in the product can emit electromagnetic fields which may interfere with medical devices, such as cochlear implants, pacemakers, and defibrillators. Please consult your physician and medical device manufacturer for specific information about your medical device, such as keeping a safe distance from the product. If you suspect the product is interfering with your medical device, stop using it immediately.

◆ Deflagrability and other air environments

Do not use the product in any area where there is a potentially explosive atmosphere, such as the air containing high concentrations of flammable chemicals, vapors, or particulates (such as particles, dust, or metal powder). Do not expose the product to high concentrations of industrial chemicals, including liquefied gases such as helium to avoid damaging or weakening the product's functionality. Please follow all tips and instructions.

◆ Light interference

Certain precise optical instruments might be interfered by laser light emitted from the product. Please be careful when using it.

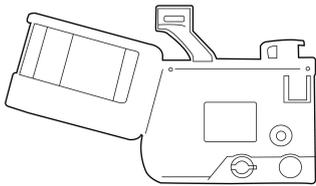
Battery-Powered Safety Instructions

1. Do not submerge the battery in water. Store the battery in a cool and dry environment when not in use.
2. Please isolate the heat source when using and storing the battery.
3. Do not connect the positive and negative poles of the battery with metal objects to avoid short circuits.
4. Do not hit, drop, or step on the battery.
5. Do not solder the battery or puncture the battery with a sharp object.

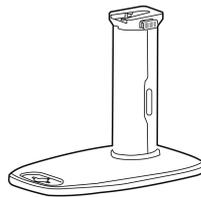
Handheld End Security Instructions

1. The top of the handheld device handle is equipped with a quick-release lock buckle, which can be pressed to remove the handheld handle and connect to other device ports.
2. The handheld device is equipped with a handheld handle through a quick disconnect connector at the bottom of the device.
3. The target holder of the handheld device is installed at the bottom of the handle and connected through the slot at the bottom of the handle.
4. Do not press the quick-release lock on the top of the handle when using the device to prevent the handheld device from falling off.

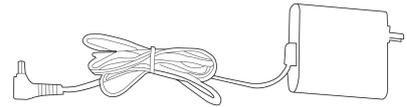
Packing List



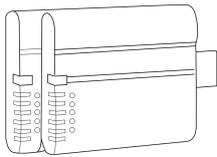
Scanner Host



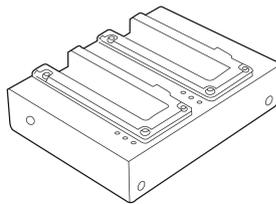
Handle



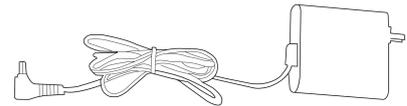
Host Power Adapter



Batteries



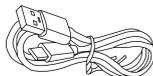
Battery Charging Dock



Battery Charger Power Supply



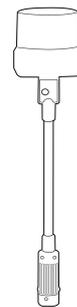
Software Dongle



Type-C Cable



Phone Holder



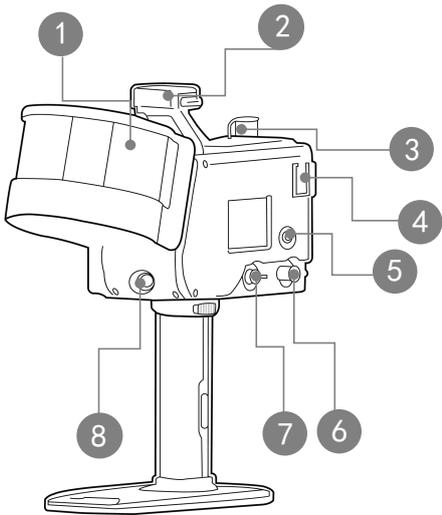
RTK Antenna

*Note

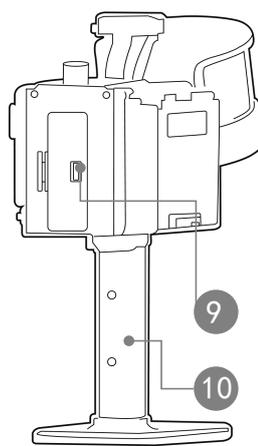
Before use, please check whether the package is in good condition and whether the accessories are missing.

Structural Description

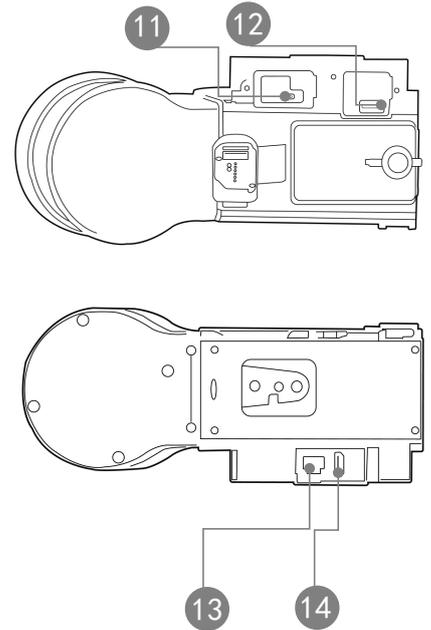
·Left side parts



·Rear parts



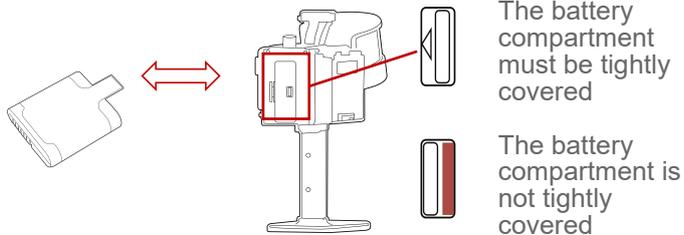
·Top and bottom parts



- | | | | |
|------------------------------|----------------------------|-----------------------------|-------------------------------------|
| 1 Laser Sensor | 2 Color Module Base | 3 RTK Antenna Socket | 4 Mobile Phone Holder Socket |
| 5 Power Button | 6 GCM Socket | 7 DC Socket | 8 Visual Compensation Lens |
| 9 Battery Compartment | 10 Handle | 11 USB Socket | 12 TF Card Socket |
| 13 Network Interface | 14 HDMI Socket | | |

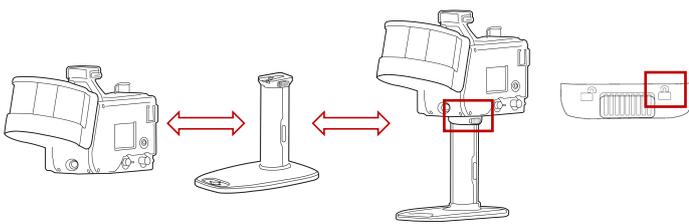
Installation And Connection

Battery Installation Method



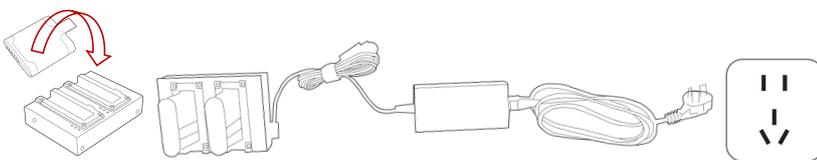
Install the battery and close the battery compartment cover tightly.
Red Part indicates that the battery compartment is not tightly covered.

Device Installation Method



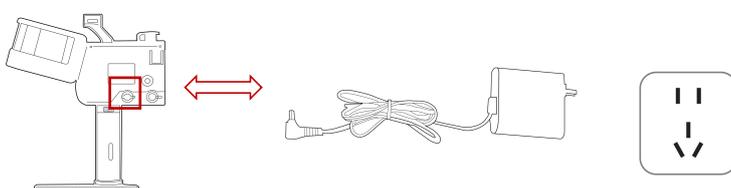
Install the handheld handle through the quick disassembly connectors at the bottom. Lock the handheld end tightly by device identification.

Battery Charger Connection Method



Insert the battery into the battery charging dock and use the battery charger to charge it.

Power Adapter Installation Method



The scanner can be charged using a power adapter or other external power supply device that meets the requirements.

Operation Process

01 / Equipment installation and startup process

- ① The handheld handle can be installed through the quick release connector at the bottom. After installing the handle, install the battery and tightly cover the back cover of the battery compartment.
- ② The handheld end is equipped with a power button  , Press and hold the power button for three seconds to turn on the device.
- ③ After connecting the device via WIFI, open the GoSLAM Manager app on the mobile device. Open the official website's service and support page to download <https://www.goslam.com/support>.

Connection Method

WIFI Name

goslam+S/N number of the device
(For example, goslam_7262995)

WIFI Password

goslam123

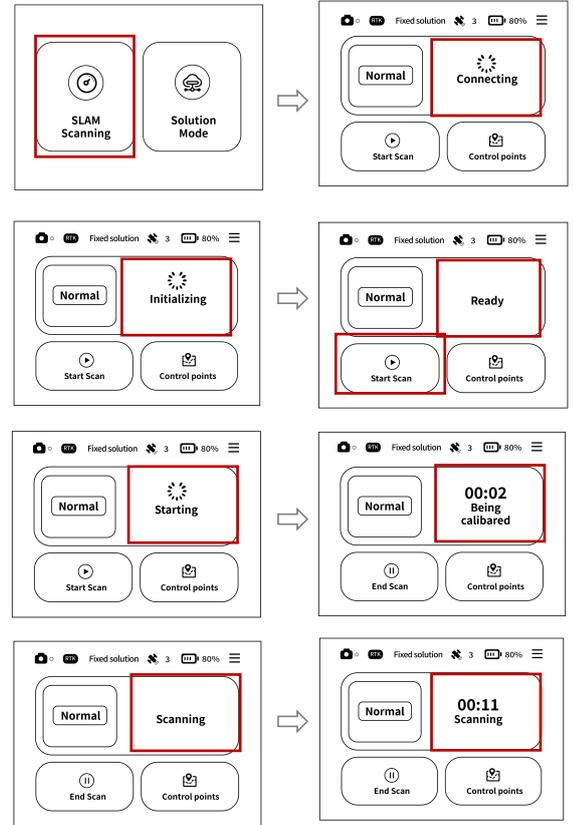


02 / Equipment scanning and control point collection

Device scanning

① The device is started, the main display screen opens the system page and selects the SLAM scanning, the page shows "Connecting" - "Initializing" - "Ready" After the device has completed the above process automatically, please place the device on the ground when preparing to scan.

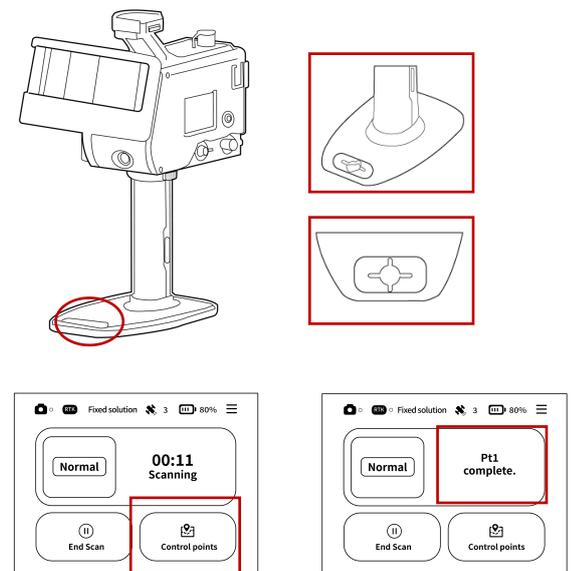
② Keep the device stationary, click "Start Scan" - "Confirm Start Scan" on the page, click Confirm, the device status display prompts: "Starting", and the device will automatically enter the start calibration state after starting. The screen displays "Please stay still to start calibration" Wait for the scan to appear before you start normal mobile scanning.



Control point collection

① If you need to record a control point during scanning, you can point the cross symbol on the bottom of the handheld handle at the control point.

② After placing it, click the control point record button to start recording the control point, and wait for the device status display to display "Pt1 Complete", which means that the control point is successfully recorded.



03 / File saving

File saving

① After the device scan is completed, click End Scan, and the "Confirm End Scan" interface appears, click "Confirm" to end the scan.

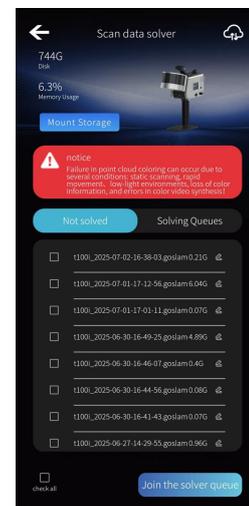
② After the scan ends, it will automatically enter the storage state, and the interface will display Saving - Saving Successful. When the device is stored, it will directly enter the "Ready" state, and the second job can be carried out.



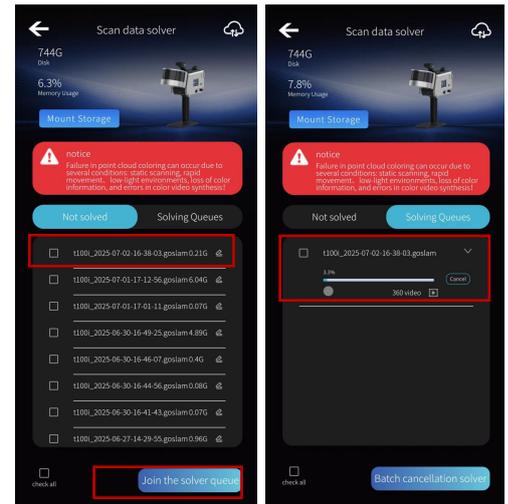
04 / Data processing

Local processing

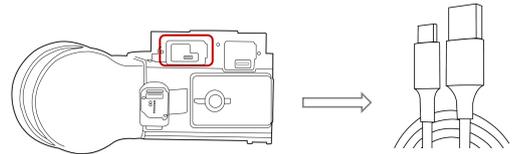
① Select Data Process on the main interface of the APP, enter the Data Processing menu, and select Scan Data Solver.



② Select the required data on the left and click【Join The Solver Queue】, the solution queue on the right will display the solution progress, and it will be automatically saved when it is 100%. In the data browsing menu, you can view the data that has already been processed in the result point cloud list.



③ Insert one end of Type-C into the top socket of the device and the other end into the computer port, and the folder will automatically pop up on the desktop. (The accompanying images are for reference only)



④ Open the Downloads folder, where the bag folder is used to store raw data and the GOSLAM folder is dedicated to storing point cloud data.

Name	Date modified
.Trash-1000	5/15/2025 10:06 AM
Downloads	4/29/2025 4:19 PM

Name	Date modified	Type
appFiles	1/22/2025 4:50 PM	File folder
bag	7/1/2025 9:56 AM	File folder
COMPUTE	1/21/2025 4:07 PM	File folder
GOSLAM	7/1/2025 10:06 AM	File folder
GOSLAMtemp	1/21/2025 4:07 PM	File folder
log	6/30/2025 3:19 PM	File folder
TILE	1/21/2025 4:07 PM	File folder
upload	1/21/2025 5:13 PM	File folder

⑤ .goslam is the raw data used for calculation, and insv is the panoramic video raw file used for video synthesis;

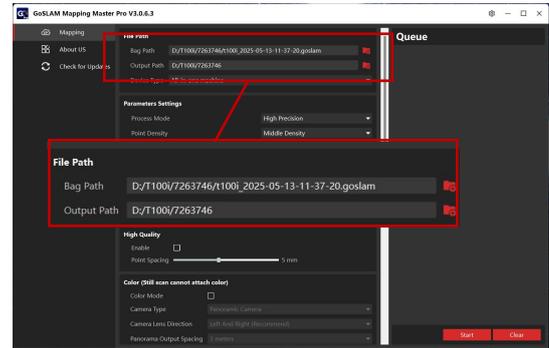
The folder starting with RT is the real-time point cloud result, and the suffix RE folder is the post calculated point cloud result.

Name	Date modified	Type	Size
t100_2025-05-28-16-46-16	5/28/2025 4:47 PM	File folder	
t100_2025-05-15-14-03-37_msta360	5/15/2025 2:14 PM	Text Document	1 KB
t100_2025-05-16-16-16-16_msta360	5/16/2025 3:34 PM	Text Document	1 KB
t100_2025-05-15-14-42-05_msta360	5/15/2025 2:52 PM	Text Document	1 KB
t100_2025-05-18-13-46-29_goslam	5/18/2025 1:52 PM	GoSLAM File	5,483,489 KB
t100_2025-05-18-13-46-29_msta360	5/18/2025 1:52 PM	Text Document	1 KB
t100_2025-05-18-13-55-32_goslam	5/18/2025 1:59 AM	GoSLAM File	957,991 KB
t100_2025-05-18-13-55-32_msta360	5/18/2025 1:59 PM	Text Document	1 KB
t100_2025-05-18-11-08-35_msta360	5/18/2025 11:03 AM	Text Document	1 KB
t100_2025-05-18-11-16-16_msta360	5/18/2025 11:23 AM	Text Document	1 KB
t100_2025-05-18-11-37-47_msta360	5/18/2025 11:42 AM	Text Document	1 KB
t100_2025-05-18-11-45-37_msta360	5/18/2025 11:50 AM	Text Document	1 KB
t100_2025-05-22-11-12-40_goslam	5/22/2025 11:05 AM	GoSLAM File	275,541 KB
t100_2025-05-22-16-24-39_goslam	5/22/2025 4:25 PM	GoSLAM File	97,925 KB

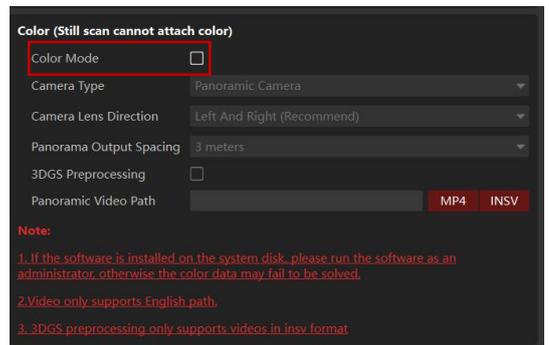
Name	Date modified	Type
RT_t100_2025-05-16-13-55-32	5/16/2025 1:59 PM	File folder
RT_t100_2025-06-30-17-10-41	6/30/2025 5:15 PM	File folder
RT_t100_2025-06-30-17-29-02	6/30/2025 5:30 PM	File folder
RT_t100_2025-07-01-09-34-00	7/1/2025 9:34 AM	File folder
RT_t100_2025-07-01-09-54-21	7/1/2025 9:56 AM	File folder
t100_2025-07-01-09-34-00_xe	7/1/2025 9:36 AM	File folder
t100_2025-07-01-09-54-21_xe	7/1/2025 10:11 AM	File folder

PC end Processing

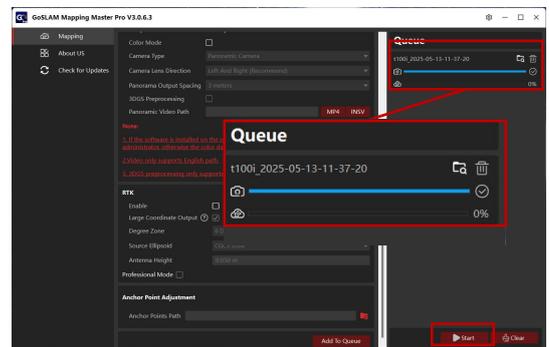
① Open GoSLAM Mapping Master Pro, select the Data Calculation page, click Data Package, and select the data file to be calculated.



② When using the device to process data, please check the color mode in the software interface to solve the color data; When you don't need a colored point cloud, turn this option off.



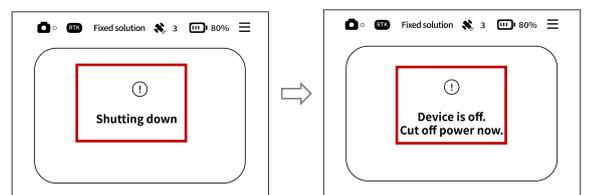
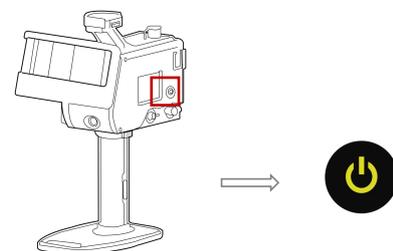
③ View the queue on the right, display the solution data file, click the start button to start the data calculation, and the progress is completed to show that the solution is successful.



05 / Power off the device

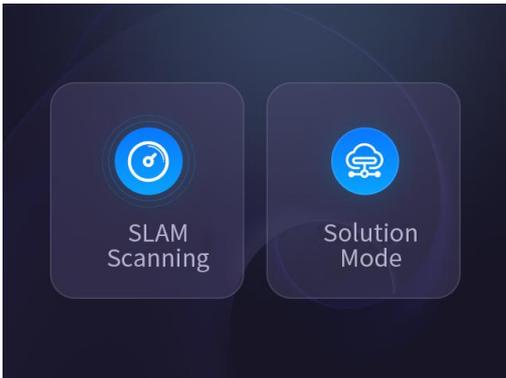
Shutdown

Press and hold the power button for three seconds, the page will display "Shutting down" - "Device is off,Cut off power now", which means that the device has been turned off, and the battery can be removed after it is completely turned off.



Introduction to the display

Main interface



SLAM Scanning

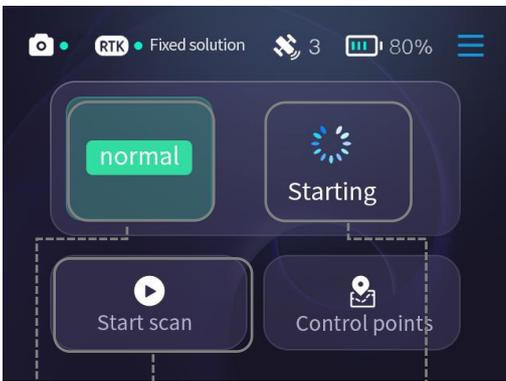
As soon as the SLAM scan mode is activated, the system begins to efficiently collect environmental data and can perform precise calculations on this data.



Solution Mode

In the solution mode, the device focuses on data processing while turning off the power supply of the laser head, effectively extending the use time of the device.

Operator interface



Camera connection

A green light indicates that the camera is connected, and a red light indicates that the camera is not connected.



RTK status

1. The green light is on, the RTK is working normally, and the fixed solution is displayed.
2. The device status display includes invalid solution, single point solution, fixed solution, floating solution and pseudorange difference, which is used to reflect its positioning performance and accuracy.



Number of satellites

The number of satellites indicates the number of satellites received by the current device, which is related to the speed and accuracy of positioning.



Device battery level

The device battery level shows the current remaining power to ensure that the user understands the battery life of the device.



Control point recording

The control point recording function allows the user to save and manage key point information for calibration or positioning.



Setting

The process of making configurations and adjustments.

Device status



1. normal
2. abnormal
3. alarm

Scan status



1. Start scan
2. End scan

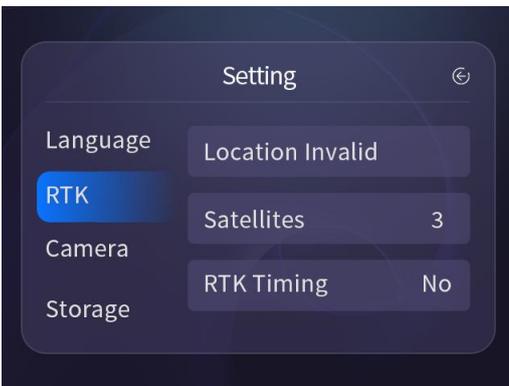
Working status

1. Connecting
2. Ready
3. Initializing
4. Being calibrated
5. Starting
6. Scanning
7. Pt1 complete.
8. Scanning finished
9. Saving data
10. Data Saved
11. Shutting down
12. Device is off. Cut off power now.



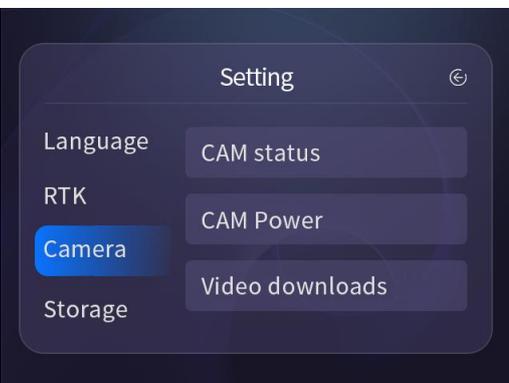
Language

Provide Chinese and English bilingual to meet the needs of users of different languages.



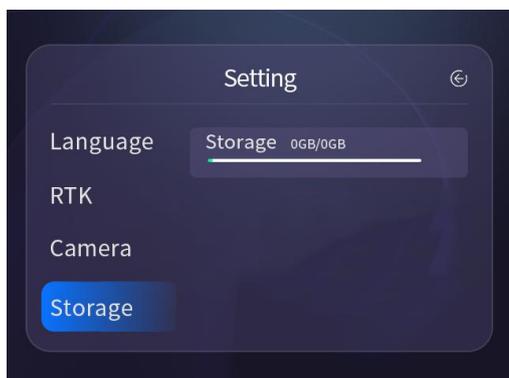
RTK

1. Location Invalid: The system can display the precise positioning information of the current device in real time.
2. Satellites: The number of satellites that are ready to connect and used will be updated in real time.
3. RTK Timing: The system clock is synchronized with the satellite signal to ensure the accuracy of the time data.



Camera

1. CAM status: The system can monitor the health status of the camera in real time.
2. CAM Power: The battery level of the device will be displayed in real time to ensure worry-free use.
3. Clock synchronization status: The system clock is synchronized with the satellite signal to ensure the accuracy of the time data.



Storage

Storage: The storage space and remaining capacity of the device are displayed in real time, so you can easily manage your data.

Supporting Post Processing Software

1 GoSLAM Manager APP

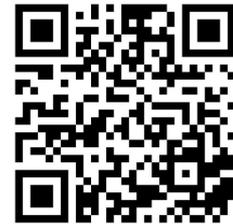
The GoSLAM Manager APP allows us to browse point cloud data in real time during scanning, support multiple browsing interaction methods and more human-machine interaction content.



Please use the Android system mobile device to scan the QR code

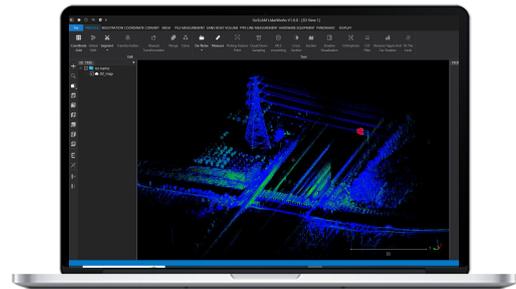
To download and install the GoSLAM Manager APP

If using the IOS version, enter 192.168.0.123 directly through the webpage to access it, and then connect the device.



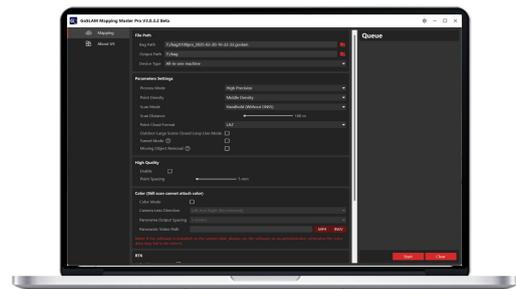
2 GoSLAM LidarWorks

GoSLAM LidarWorks is a corresponding software designed for GoSLAM series scanners. It can process point cloud data from third-party devices with high compatibility and flexibility.



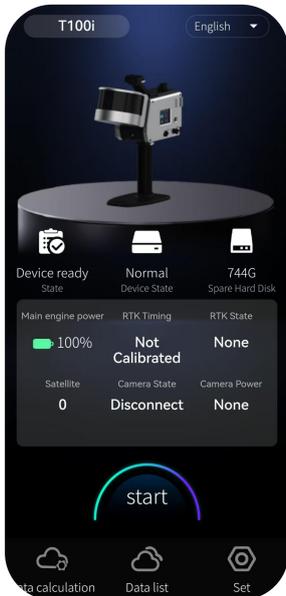
3 GoSLAM Mapping Master Pro

It is a desktop processing software. Users can choose to process data either in the device end or desktop software. It can significantly improve the overall work efficiency and meet various demands.

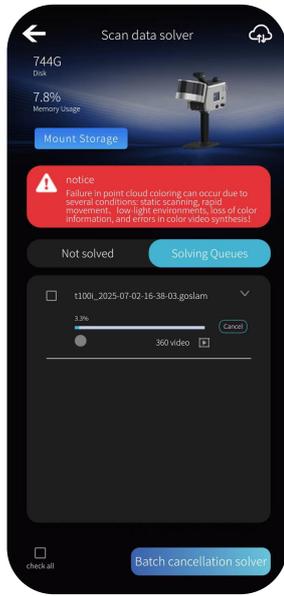


Introduction to APP Functions

Operation Display Section



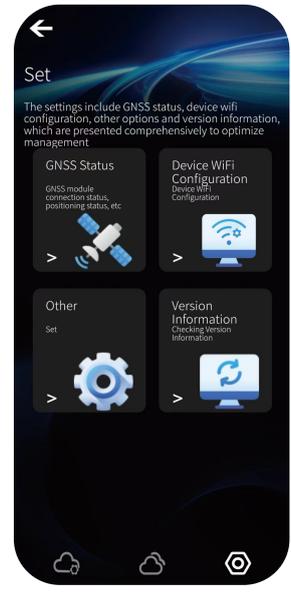
Home page



Data Solving page



Data browsing page



Settings page

Operation button instructions



Device connection status



Switching between Chinese and English



Data Process



Data Browse



Set



Result Data, View and export the calculated point cloud.



Original Data, View, export, and import unresolved data packages.



GNSS Status, You can configure an RTK account.



Other, The color scanning mode can be modified.



Version Information, Check the firmware version as well as the application version.

Processing Interface

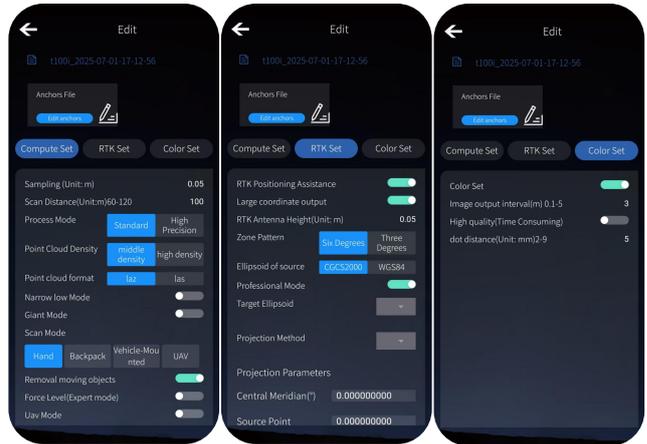
Scan Data Solver Page

View the data to be processed, the data in the process of solving, and the data processing records, and modify the processing parameters.



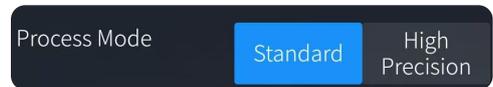
Modify The Processing Parameters

Downsampling (unit: meters), scanning distance (unit: meters) , solution mode, point cloud output density, point cloud format, narrow low feature mode, large loop mode, scanning mode, moving object removal, forced level (expert mode), RTK positioning assist, large coordinate output, RTK antenna height (unit: meters), band type, source ellipsoid, professional mode, color settings, image output interval 0.1-5 (unit: meters), high quality (long time consuming), point spacing (unit: mm) 2-9.



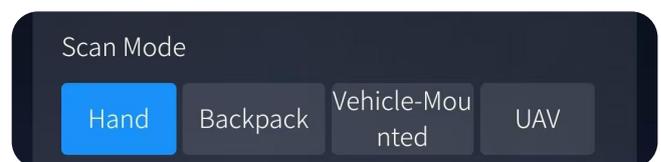
Process Mode

- Standard mode: It is suitable for most scenarios with strong features, with fast solving speed, and can be used for quick mapping.
- High-precision mode: mainly used for production, the output data accuracy is high, the solution speed is slightly slower than the standard mode, and the accuracy of indoor, closed environment and relatively low characteristics of environmental data is significantly improved.



Scan Mode

Hand, Hand RTK, Backpack, Vehicle-Mounted, UAV



Introduction To The Functions Of The Calculation Interface



Function Introduction

Anchors File	Input control point coordinates to perform anchor point calculation and improve data accuracy	RTK Positioning Assistance	After activation, RTK data will participate in point cloud data calculation, further improving the accuracy of the resulting point cloud and outputting point cloud data with accompanying geographic coordinates.
Down Sampling	Modifying the down sampling value will cause a change in the density of the sparse point cloud		
RTK Antenna Height	Modify the RTK used for scanning	Zone Pattern	Only effective when the source ellipsoid is set to CGCS2000, used to modify the degree band type used in Gaussian projection conversion
Scan Distance	The farthest distance of the point cloud can be modified within the interval range		
High Quality	After enabling the high-quality mode, the color point cloud can be encrypted according to the set point spacing to improve the color resolution of the point cloud	Ellipsoid Of Source	According to the type of source ellipsoid output by RTK, CGCS2000 ellipsoid corresponds to Gaussian projection mode by default, and WGS84 corresponds to UTM projection mode by default
Process Mode	Modify according to the scanning environment	Image output interval	Output intervals can be selected within the interval range according to the demand
Color Settings	If you need to use the panoramic image of the color module for colorization, you can upload the synthesized panoramic MP4 video through Lidar Works or put it into the bag folder in the removable storage media, and connect the removable storage media to the scanner.	Tunnel Mode	Suitable for closed scenes with very narrow and low features
		Scan Mode	Choose based on the method of data collection
		Force Level(Expert mode)	If necessary, the system will perform forced horizontal fitting based on the ground in the scanning scene. If the ground in the scene is not horizontal, please do not enable it
Point Cloud Density	Adjust the original point cloud density generated	Removal Moving Objects	Removing objects encountered during scanning

Original Data File Description

video 00 t100i 2025-06-30-16-49-25 17.0.insv

Panorama video original file

t100i_2025-04-21-11-11-14.goslam

Laser point cloud raw packet

t100i_2025-06-30-16-41-43 insta360.txt

The download path of the original file of the panoramic video

t100i_2025-06-30-16-49-25.txt

Original anchor file

Real time solution result file description

AllMap.laz
AllMap.pcd

Point cloud of the original result in laz pcd format

DownFilterMap.laz

Raw downsampling point cloud in PCD format

Transformations.pcd

Trajectory files

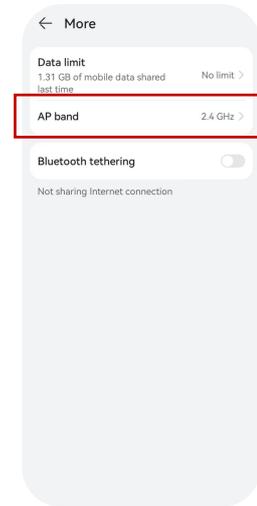
Explanation of post solution results data

 Photo	Photo output folder (generated only when solving color data)
 ControlPoint.txt	Control point information file
 gpspath.txt	GPS trajectory txt file (only generated when paired with RTK module)
 path.txt	Scan trajectory file
t100i_2025-10-11-11-14-01_map.laz	Original point cloud of local coordinates
t100i_2025-10-12-11-15-01_colormap 1.laz	Split the output color point cloud data (importing all of it will result in a complete point cloud)
t100i_2025-10-12-11-16-01filtermap2.pcd	Raw down sampling point cloud in PCD format
t100i_2025-10-12-11-17-01_gps.pcd	GPS trajectory file in PCD format

GNSS Settings

① Turn on the hotspot on your phone

Turn on the hotspot on your mobile phone, and the hotspot name is GOSLAMAP SN, password goslam123 (set the frequency to the 2.4GHZ)



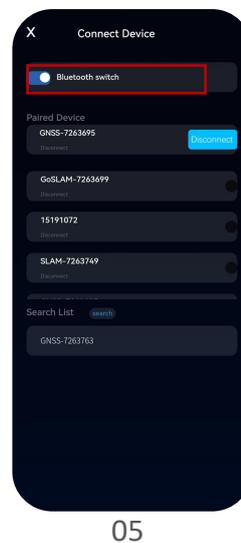
② Configure the scanner device WIFI

Go to the settings page and click on the device WiFi configuration interface, search for and connect to the SLAM device SN number", click on the one-click configuration to return to view the GNSS status after completion.



③ Connect to RTK Bluetooth

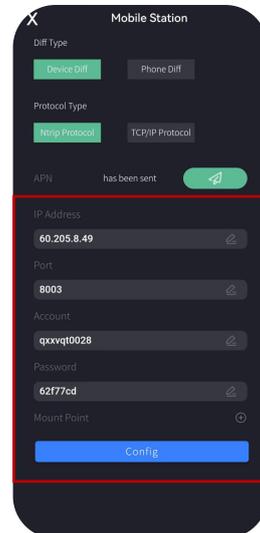
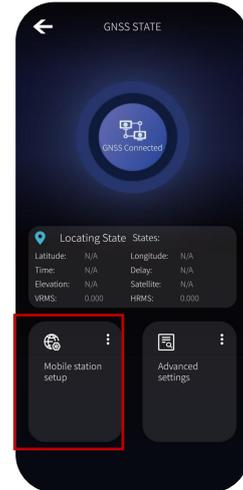
Go to the GNSS status page in the APP settings, click the Connect Device button, search for GNSS module Bluetooth, and match with the GNSS module Bluetooth (the Bluetooth name is usually OEM/GN+number).



④ Mobile Station Configuration

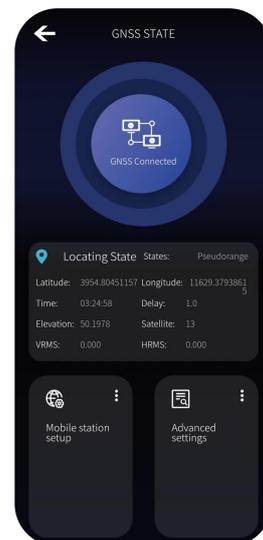
Go to the mobile station settings interface to configure the account. During the process, it is necessary to keep the mobile device connected normally. Connect to Ethernet to ensure normal access to mounting. After completing the configuration, you can connect the device. Go to the scanning interface to check the RTK status and wait for fixation. Once confirmed, scanning can be started.

- Fill in the corresponding IP address and data port according to the CORS system service provider used;
- Log in to the account with the account password; Select the appropriate mount point, and click Configure after selecting.



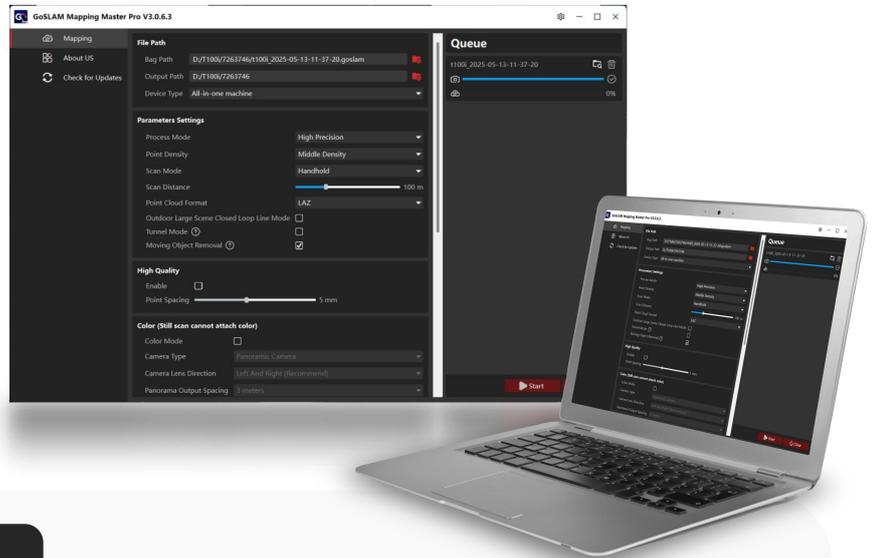
⑤ Connection status

Returning to the GNSS configuration main interface, you can see the status displayed as connected.



GoSLAM Mapping Master Pro Function introduction

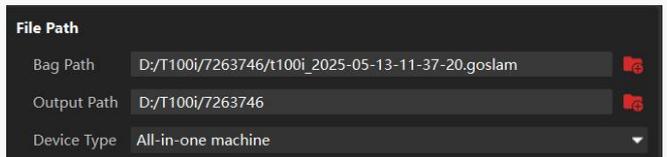
Operation Display Section



Operation button instructions

Bag Path

Open Mapping Master, click on the data bag, and select the data file you want to solve, the figure on the right is for reference only.



Parameter Setting

(1) Scene mode: Set according to the scanning scene and accuracy requirements.

*Standard: Applicable to most scenarios (solving time is fast).

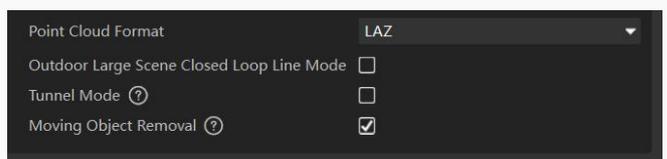
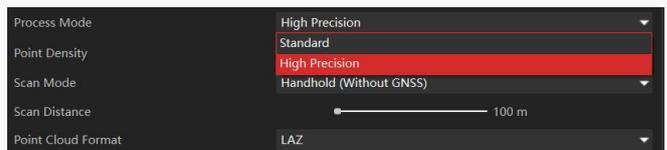
*High Precision: suitable for all closed scenes, as well as outdoor scenes that require extreme high accuracy.

*Scan distance: The output distance of the point cloud can be adjusted, the range is 20-300 meters, and the default value is 100 meters. Adjust it according to the needs of the equipment model.

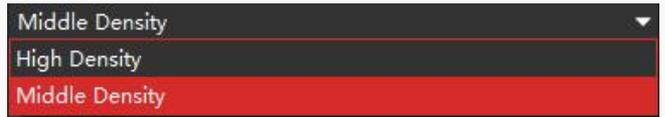
*Point Cloud Format: The output format of the point cloud can be adjusted, LAZ is a general compression format, and the space occupied by this result data is small, if the application software does not support the LAZ format, it can be modified to LAS format, which is more compatible.

*Outdoor large scene closed loop line mode: It is designed for scenarios with a wide scanning range and it is difficult to form a small loop naturally, it can effectively improve the data accuracy and ensure that the scanning results are accurate and complete, especially suitable for the vast area lacking internal loop data.

*Tunnel Mode: Suitable for closed scenes with narrow and low characteristics.

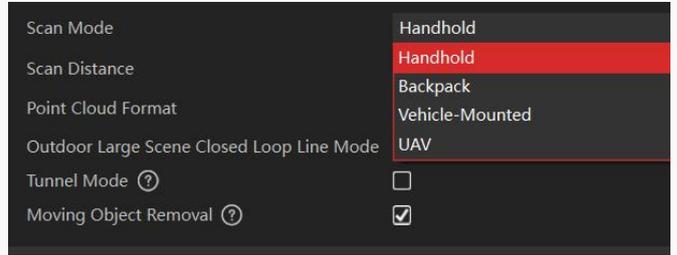


(2) Point Density: Adjusts the number of raw point cloud outputs.



(3) Scanning Mode: Select the scanning mode based on the data collection mode.

- *Handhold
- *Backpack
- *UAV
- *Vehicle-Mounted



High Quality

After the high-quality mode is enabled, the color point cloud will be encrypted based on the set point spacing during the solution process to improve the resolution of the color point cloud.

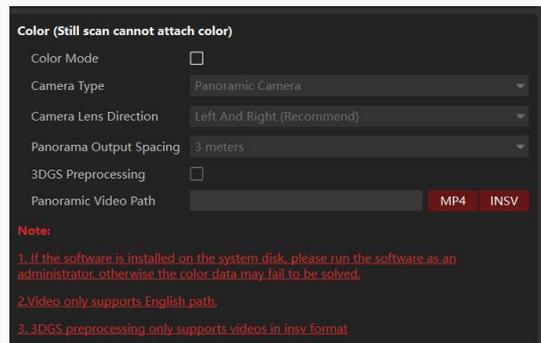


Color settings

If you want to solve color data when using the device for data processing, please select the color mode option directly in the software interface.

*MP4 is a panoramic video with the same name as the packet.

*INSV is the camera's original format, which is exported directly from the color module.



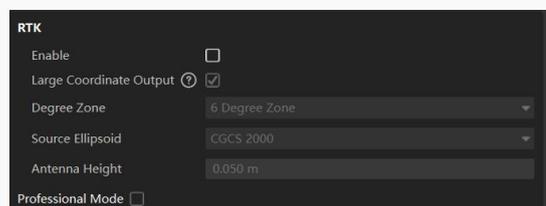
RTK Settings

Enter the antenna height according to the model of the RTK.

*Degree band: 3 degree band/6 degree zone can be selected according to requirements.

*The reference ellipsoid is selected according to the RTK settings. Source ellipsoids CGCS2000 use Gaussian projection to select the correct degree band; The source ellipsoid WGS84 uses UTM projection without the need to select degree bands.

*Professional mode is used to solve various special coordinate systems, providing professional coordinate transformation and calculation support for high-precision spatial data processing.



Device Storage

1. Wipe the device with a clean cotton cloth and put it in the box.
2. Avoid impact, bumping and disassembly of the equipment.
3. Do not disassemble the device yourself. In case of malfunction, please contact your local dealer.
4. After a period of time, gently shake the lidar component to check whether there is any abnormal noise. If you hear any abnormal noises, check the screws of the lidar assembly. All equipment screws are protected from loosening to make them less likely to loosen. To ensure safety, contact your local dealer if any screws are loose.

Common Faults And Solutions

Problems	Solutions
The scanner host cannot be powered on.	Check the battery is properly installed. Make sure the battery is fully charged.
The phone cannot detect the Wi-Fi signal of the device.	Check if the power indicator light on the device host is on.
Mobile APP cannot display real-time point cloud.	Check whether the phone is connected to the device's Wi-Fi. Please exit the scanning control page and re-enter, or close the app and reopen. Users who control through the web page can use the browser's refresh function to force a refresh. If this does not solve the problem, please check if the device is too narrow when starting the scanning, which may cause the laser to be severely blocked and unable to obtain structural data normally.
The device shuts down during operation.	Check the battery level. Check whether the battery is fully inserted into the battery holder.



GoSLAM-LinkedIn



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GoSLAM-YouTube



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