SPECIFICATIONS

GNSS Features	
Channels	WIFI
GPSL1, L1C, L2C, L2P, L5	Modem
GLONASS	WIFI hot spotReceiver broadcasts its hot spot form web UI
BDSB1I,B2I,B3L,B1C,B2A,B2B*	accessing with any mobile terminals
GALILEOE1,E5A,E5B,E6C*	WIFI datalinkReceiver can transmit and receive correction
SBASL1C,L1A*	data stream via WiFi datalink
NavIC/ IRNSSL5*	data on outh the trin i datamin
QZSSL1,L2C,L5*	
	Data Storage/Transmission
MSSL - Band(Reserve)	Storage
Positioning output rate	extendable up to 128GB
Initialization time<10s	Automatic cycle storage(The earliest data
Initialization reliability>99.99%	Files will be removed automatically while the Memory is not enough)
Desitioning Presiden	Support external USB storage
Positioning Precision	The customizable sample interval is up to 20Hz
Code differential GNSS Horizontal: 0.25 m + 1 ppm RMS	Data transmission Plug and play mode of USB data transmission
Vertical: 0.50 m + 1 ppm RMS	Supports FTP/HTTP data download
Static(long observations)Horizontal: 2.5 mm + 0.1 ppm RMS	Data format Static data format:STH,Rinex2.01,Rinex3.02,etc.
Vertical: 3 mm + 0.4 ppm RMS	Differential data format:CMR,RTCM2.1,
StaticHorizontal: 2.5 mm + 0.5 ppm RMS	
	RTCM2.3,RTCM3.0,RTCM3.1,RTCM3.2
Vertical: 3.5 mm + 0.5 ppm RMS	GPS out put data format:NMEA0183,PJK plane
Rapid static	coordinate,Binary code
Vertical: 5 mm + 0.5 ppm RMS	Network model support: VRS, FKP, MAC,
PPKHorizontal: 3 mm + 1 ppm RMS	Fully support NTRIP protocol
Vertical: 5 mm + 1 nnm RMS	. a J support it it in protocol
RTK(UHF)Horizontal: 8 mm + 1 ppm RMS	
Vertical: 15 mm + 1 nnm RMS	Sensors
RTK(NTRIP) Horizontal: 8 mm + 0.5 ppm RMS	
NTN(NTNIF) Horizontal. 6 inini + 0.5 ppin Rivis	Electronic bubble
Vertical: 15 mm + 0.5 ppm RMS	bubble, checking leveling status of the
RTK initialization time	carbon pole in real-time
SBAS positioningTypically < 5m 3DRMS	IMUBuilt-in IMU module, calibration-free
BANDA-L Horizontal: 5-10cm (5-30min)	and immue to magnetic interference
Vertical: 10-30cm (5-30min)	ThermometerBuilt-in thermometer sensor, adopting intelligent
IMULess than 10mm + 0.7 mm/° tilt to 30°	temperature control technology, monitoring
2000 trian rolling til to 00	temperature control technology, members
IMU tilt angle	and adjusting the receiver temperature
Hardware Performance Dimension	User Interaction Operating system
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Hardware Performance Dimension	User Interaction Operating system Linux Buttons Single button Indicators 4LED indicators Web interaction With the access of the internal web interface management via WiFi or USB connection, users are able to monitor the receiver status and change the configurations freely Voice guidance It provides status and operation voice guidance, And supports Chinese/English/ Korean/Spanish/Portuguese/Russian/Turkish
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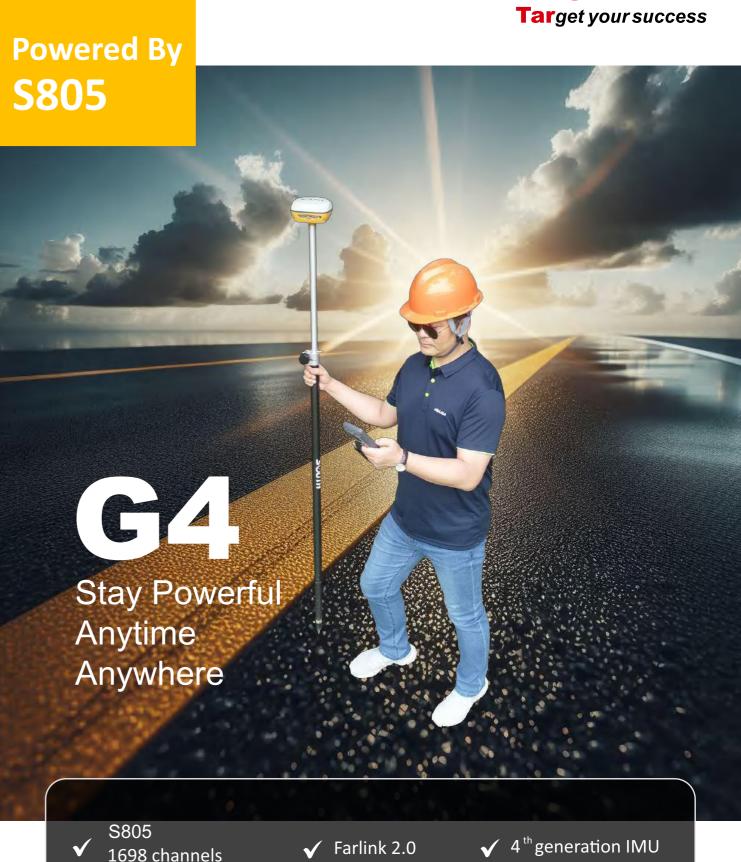


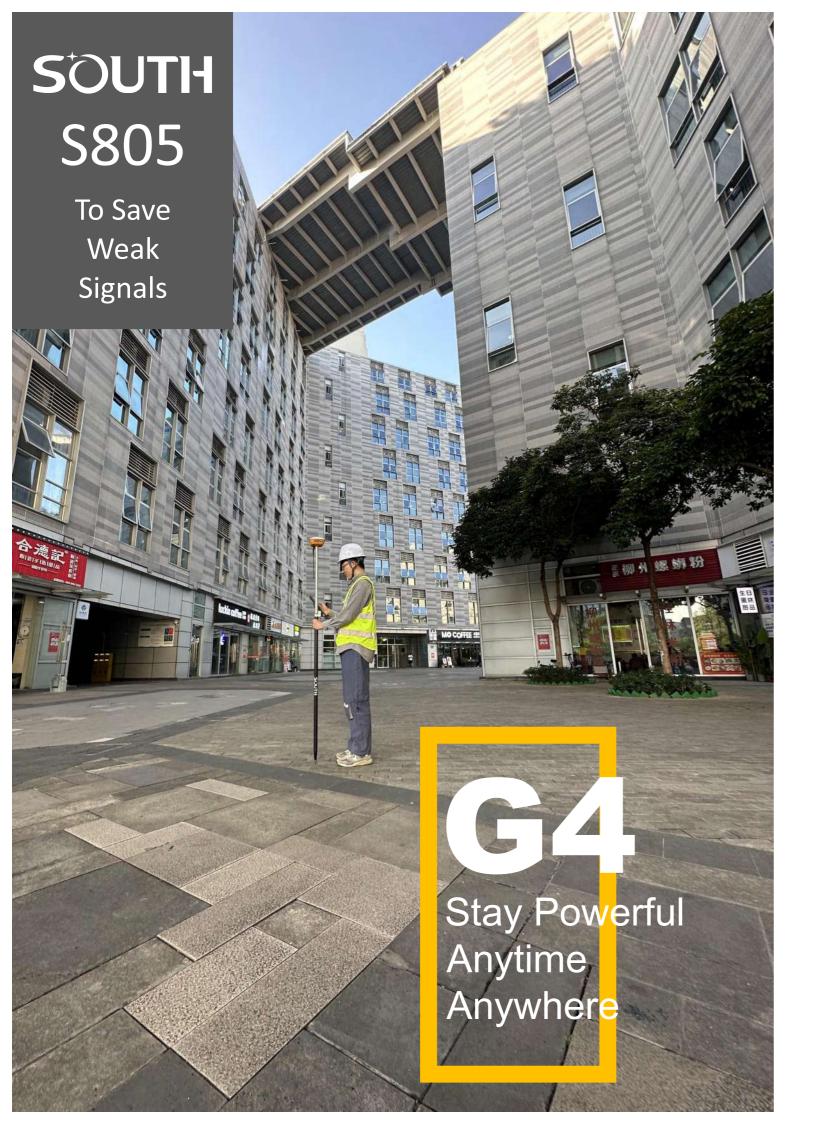
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S805, the New Pop Star

Save Weak Signal

SOUTH always spares no efforts to invest in innovations. Through unremitting research and improvement of the multisatellite positioning algorithm, we have developed—the S805 GNSS engine.

It has 1698 channels to track more satellites and weak signals.

The more important improvement is about the success rate and speed of obtaining a fixed solution. Previously, under the dense forest and surrounded by buildings, it was impossible to get a fixed solution. Now with G4, you don't have to wait a long time to get fixed. It used to take minutes, but now it takes tens of seconds.



Farlink 2.0

Less Limitation Better Performance

Here comes the Farlink 2.0. After years of hardware and firmware updates, Farlink 2.0 can undertake larger data and provide more stable transmission.

In addition, Farlink 2.0 can receive data from one specific base. Even though there are several bases transmitting with the same frequency, your rover will receive data from the correct base.

Each radio had extreme temperature-changing testing from 20 $^{\circ}\text{C}$ to 60 $^{\circ}\text{C}$.



The 4th Generation IMU

Almost All-time Usable

In 2023, two major updates were launched: Calibrate-free Initialization & Stability Improvement. For 2024, we have a new update again: when you rotate the pole, IMU sensor remains usable.

In the past, surveyors would rotate the pole when changing the direction of travel or adjusting the attitude of the receiver, sometimes it disables IMU. Now the new update eliminates the loss of Inertial-Measurement-Usable Status in most scenarios to improve the availability and productivity of IMU.



Material

More Robustness & Durability

The body of the G4 is made of AZ91D magnesium alloy, which has high strength and excellent heat dissipation. The surface is sprayed with metallic paint, which makes the G4's body resistant to scratches, impacts, and rust.

The top cover of the G4 is made of polycarbonate by one-piece molding. It has good fire resistance and anti-deformation properties. GNSS signal will be received evenly from all directions.

Appearance

By Surveyors, For Surveyors

Based on the opinions and suggestions of old users, we redesigned the color and indicator light of the receiver.

The yellow bodywork makes surveyors and the instrument more conspicuous. On the construction site, in the dense forest, others will easily notice the users of G4 and protect their safety.

Now surveyors can check the receiver's working status more clearly in complicated environments such as forests or at night. At the same time, it can be better seen from a long distance.

Complete Set of Modules

Prepare for All Conditions

G4 is equipped with every basic module like network, 2W radio, WiFi, IMU and extendable SSD (up to 128GB).

With all these modules installed, G4 is a utility player in the field. No matter what environments it encounters, neither for now nor in the future, G4 can always start to work with appropriate modules.

Complete Set of Modules

Unique SOUTH Algorithm, Reliable Working Power

SOUTH research team has a number of core technologies and unique algorithms, such as the SOUTH algorithm. It can correct data from harsh environments to obtain better accuracy.

Fixed-keep allows continuing to measure for a few minutes after losing the fixed solution.

Beidou PPP and Galileo HAS help you achieve precise point positioning through satellite broadcasted signals, so you can even work in areas without CORS corrections. Your success is our target.

