SPECIFICATIONS

Surveying performance	
Signal tracking	220 channels
	BDS B1、B2
	GPS L1C/A, L1C, L2C, L2E, L5
	GLONASS L1C/A, L1P, L2C/A, L2P, L3
	SBAS L1C/A, L5 (just for the satellites supporting L5)
	Galileo GIOVE-A and GIOVE-B, E1, E5A, E5B
	QZSS, WAAS, MSAS, EGNOS, GAGAN (SBAS)
GNSS features	Positioning output rate: 1Hz~50Hz
	Initialization time: <10s
	Initialization reliability: >99.99%
Positioning precision	
Code differential GNSS positioning	Horizontal: $\pm$0.25m + 1ppm Vertical: $\pm$0.50m + 1ppm
	SBAS positioning accuracy: typically<5m 3DRMS
Static GNSS surveying	Horizontal: $\pm$2.5mm + 0.5ppm Vertical: $\pm$5mm + 0.5ppm
Real-time kinematic surveying	Horizontal: $\pm$8mm + 1ppm Vertical: $\pm$15mm +1ppm
Network RTK	Horizontal: $\pm$8mm + 0.5ppm Vertical: $\pm$15mm + 0.5ppm
RTK initialization time	2~8s
Operation system/User interface	
OS	Linux
Button	Double buttons and visual operation interface
LCD	0.96 inch HD OLED screen, the resolution is 128 × 64
Web interaction	Visiting the internal management web page via WIFI or USB mode, to monitor the receiver
	status and change the configuration freely
Voice	iVoice intelligent voice technology provides status and operation voice promptly
	Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish
	Supporting user defined voice
Secondary development	Providing secondary development package, and opening the OpenSIC observation data
	format and interface definition for secondary development
Data cloud service	
	Web page cloud service management platform, supporting online register etc.
Hardware performance	
Dimension	152mm (diameter) × 137mm(height)
Weight	1.44kg (including battery)
Material	Magnesium alloy shell
Temperature	Operating: -45°C ~ +60°C, Storage: -55°C ~ +85°C
Humidity	100% Non-condensing
Protection Level	Waterproof: IP67 standard, protected from long time immersion to depth of 1m
	Dustproof: IP67 standard, fully protected against blowing dust
Shock and vibration	Withstand 3 meters drop onto the cement ground naturally
Electrical	9-25v wide voltage DC design, with overvoltage protection
Battery	High capacity removable battery with the indicator displaying the power usage
	Voltage 7.4v, 6800mAh/per
Battery life	More than 30h (static mode), More than 15h (RTK mode), (Providing the 7 × 24h battery solution)
Communications	
I/O port	5PIN LEMO external power port + Rs232, 7PIN LEMO external USB (OTG)
	1 network/radio data link antenna port, SIM card slot
Wireless modem	Integrated internal radio receiver and transmitter 1W/2W/3W
	External radio transmitter 5W/25W
	Working frequency 410-470MHz
	Communication protocol: TrimTalk450s, SOUTH
Cellular mobile network	WCDMA3.5G network communication module, GPRS/EDGE compatible;
	CDMA2000/EVDO 3G and TDD-LTE, FDD-LTE 4G optional
Double module Bluetooth	BLEBluetooth 4.0 standard, support for android, ios cellphone connection, Bluetooth 2.1 + EDR standard
WIFI	
WIFI hot spot	Adopting the WIFI hot spot function, any smart terminals (controller, cellphone and PC) can connect
	to the receiver easily
WIFI data link	The receiver can transmit and receive correction via WiFi
Data storage/ transmission	
Data storage	8GB internal storage
	Supporting external USB data storage
	Changeable record interval, supports up to 50Hz raw data collection
Data transmission	USB data transmission, FTP download, HTTP download
Data format	Static data format: STH, Rinex2.x and Rinex3.x etc.
	Differential data format: CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2
	GPS output data format: NMEA 0183、PJK plane coordinates、binary code、Trimble GSOF
	Network model support: VRS, FKP, MAC, supporting NTRIP protocol
Inertial sensing system	
Tilt survey	Built-in tilt compensator, correcting coordinates automatically according to the tilt direction
	and angle of the centering rod
Electronic bubble	Controller software display electronic bubble, checking leveling status of the centering rod real time
Thermometer	Built-in thermometer sensors, adopting intelligent temperature control technology, monitoring and
	adjusting the receiver temperature in real time

SOUTH
Target your success

GALAXY G6
— Innovative GNSS Receiver —
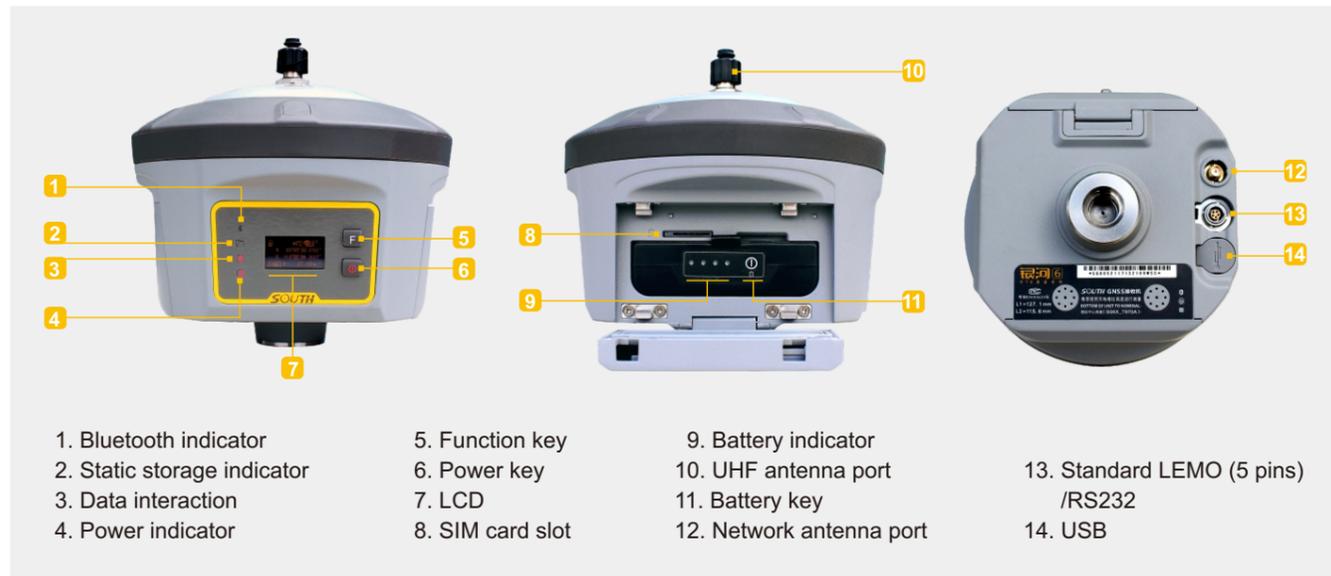
Intelligent，Versatile，
Innovative，Rugged

Linux OS	All constellations	Tilt survey	AP hot spot
LCD	Radio Router	Bimodule bluetooth	Industrial 3-proofings
Cloud service	Electronic bubble	8G SSD storage	RINEX support

GALAXY G6

During the Multiple constellation age, SOUTH keep developing and optimizing the innovative products for customers, SOUTH Galaxy G6 RTK system adopts intelligent cloud platform as its new engine, to lead the development or smart RTK system.

1. Bluetooth indicator
2. Static storage indicator
3. Data interaction
4. Power indicator
5. Function key
6. Power key
7. LCD
8. SIM card slot
9. Battery indicator
10. UHF antenna port
11. Battery key
12. Network antenna port
13. Standard LEMO (5 pins) /RS232
14. USB

KEY FEATURES

Intelligent cloud platform

Embedded Linux operation system+ SOUTH intelligent cloud platform.

The receiver is no longer an independent hardware device, it's a complete intelligent operation system with web page cloud platform.
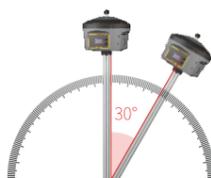
Linux OS

Office work platform — Internet real-time interaction — Field terminal

E-bubble

The internal Electronic bubble sensor can correct the survey result and support receiver to survey without leveling.

Tilt survey

The internal Tilt sensor helps receiver to survey without centering, in order to improve survey efficiency, and tilt angle can reach 30 degree

30°

Intelligent data communication

Internal radio
Internal transmission and receiving radio module supporting Trimtalk450S and SOUTH protocol change and High, medium and low power switch.

Network
Adopting new network program frame, it supports all kinds of network types to access CORS seamlessly. 3.5G high speed network and is extendable to 4G.

Smart dialing
Using the intelligent PPP dialing technology and adopting the network loading mechanism same to the smart cellphone. Keeping G6 online continuously during the survey, making connection much faster

WIFI data link
Adopting the WIFI as the data link which improves the measurement result, and the AP hot spot function make any smart terminals can connect to the receiver to control it.

WI-FI

Intelligent storage technology

・Internal 8G storage supporting external U disk storage

・Supporting STH, Rinex format, sample frequency can reach to 50Hz

・Automatic circular storage, delete the primary data once the disk is full automatically

・On-key intelligent copy, supporting direct data copy by external U disk

8GB 50Hz

Radio Router

Galaxy G6 is able to transmit the correction from reference station to other Rovers by its excellent internal radio, greatly improve the utility of device and the flexibility of fieldwork

Radio
GPRS

iVoice intelligent

iVoice intelligent voice technology provides status and operation voice promptly, and supports multiple languages.

iVoice

Full satellite constellations support

Equipped with most advanced GNSS boards, SOUTH Galaxy G6 system can track most signals from all kinds of running satellite constellation, especially support B1,B2 signal from Beidou, also is able to get position result only with Beidou signal.

● BDS ● GPS ● GLONASS

Intelligent power supply technology (Optional)

・Long endurance removable lithium battery which can display the remaining power real time

・Equipped with large capacity portable power source which supply the power continuously

・Supporting cellphone battery charging

・Adopting intelligent power saving mode, rising the endurance time 20% under the normal work mode

High capacity mobile power

Web UI management platform

The internal Web UI management platform of galaxy G6 supports WIFI and USB mode connection. Users can monitor the receiver status and configure it via the internal Web UI management platform.

HD LCD

0.96 inch HD OLED colorful LCD supporting multiple language display and it is suitable to field work with high brightness and low power consumption.

40°C
N 23°07'32.9378"
E 113°22'06.4746"
FIXED H 29.747m

Intelligent temperature control technology

Built-in several thermometer sensors, intelligent temperature control technology, monitor and adjust the receiver temperature real time and guarantee the best work status.