SPECIFICATIONS

Satellite Signals Tracked Simultaneously	
Signal tracking	336 channels (Bd990), 692 channels (optional)
	BDS B1,B2,B3
	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,GIOVE-B,E1,E5A,E5B
	QZSS (L1,L2 and L5)
	WAAS,MSAS,EGNOS,GAGAN
	RTX function (336 channels version supports)
GNSS features	Positioning output rate:1Hz~50Hz
	Initialization time:<10s
	Initialization reliability:>99.99%
Positioning precision	
Code differential GNSS positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50m+1ppm
	SBAS positioning accuracy:typically<5m 3DRMS
High precision Static	Horizontal: ±2mm+0.1ppm Vertical: ±3.5mm+0.4ppm
Static Accuracy	Horizontal: ±2mm+0.5ppmRMS Vertical: ±5mm+0.5ppmRMS
PPK Accuracy	Horizontal: ±8mm+1ppmRMS Vertical: ±10mm+1ppmRMS
RTK Accuracy	Horizontal: ±8mm+0.5ppmRMS Vertical: ±15mm+0.5ppmRMS
RTK working mode	Network RTK,UHF RTK and CORS
RTK initialization time	2~8s
User interaction	
Operaing system	Linux
Buttons	Two buttons operation
Indicators	Five indicate lights
Web UI	Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB
Voice guide	iVoice intelligent voice technology provides status and voice guide
	Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
Secondary development	Providing secondary development package
Hardware performance	
Dimension	135mm(Diameter)x125mm(Height)
Weight	1.39kg (with two batteries)
Material	Magnesium aluminum alloy shell
Operating	-40°C~+65°C
Storag	-40°C~+80°C
Humidity	95% Non-condensing
Waterproof/Dustproof	IP67 standard, protected from long time immersion to depth of 1m
	IP67 standard, fully protected against blowing dust
Shock and vibration	Withstand 2 meters pole drop onto the cement ground naturally
Power Supply	9-25V DC, overvoltage protection
Battery	Rechargeable, removable Lithium-ion battery, 7.4V 3400mAh/per; standard four batteries power package (optional)
Battery solution	Supporting one or two batteries installed; supporting power pole connection
Battery life	Single battery: >8h (static mode).And two installed hot swappable batteries works for more than 16 hours.
Communications	
I/O port	5PIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet
	1 radio antenna interface, SIM card slot
Wireless modem	Built-in radio, 1W/2W/3W switchable, typically work range can be 8KM
	Radio and internet repeater switchable
Frequency Range	410-470MHz
Communication Protocol	TrimTalk450s, TrimMark3, PCC EOT, SOUTH
Cellular Mobile Network	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE
Double Module Bluetooth	BLEBluetooth 4.0 standard, support for android, ios cellphone connection
	Bluetooth 2.1 + EDR standard
NFC Communication	Realizing close range (shorter than 10cm) automatic pair between receiver and controller
	(controller equipped NFC wireless communication module needed)
External Devices	Optional external GPRS/EDGE dual-mode communication module, switchable;
	allow to connect external WLAN card
WIFI	
Standard	802.11 b/g standard
WIFI Hotspot	The WIFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control
	and moditor receiver
WIFI data link	To work as the datalink that receiver is able to broadcast and receive differential data via WIFI
Data storage/ Transmission	
Data Storage	8GB SSD internal storage
	OTG support up to 32G external USB storage and automatical cycle storage
	Changeable record interval, up to 50Hz raw data collection
Data Transmission	USB data transmission, supporting FTP/HTTP data download
Data Format	Differential data format: CMR+, SCMRx, 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, fully support NTRIP protocol
Inertial sensing system	
IMU tilt compensation	Additional horizontal pole tip uncertainty typically less than 8 mm + 0.6 mm/° tilt down to 30°,
	tilt angle: 0° – 60°
Electronic bubble	Controller software display electronic bubble, checking leveling status of the centering rod real time
Thermometer	Built-in thermomter sensors, adopting intelligent temperature control technology which can mornitor and
	adjust the temperature of receiver in real time

SOUTH
Target your success

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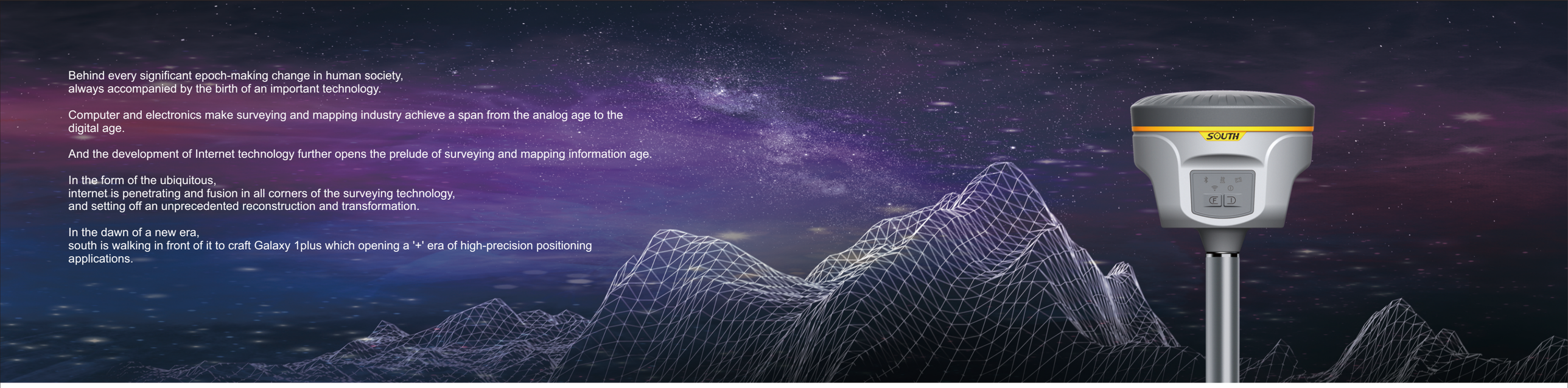
SOUTH
Target your success

GALAXY G1 Plus

— Innovative IMU-RTK Receiver —



Behind every significant epoch-making change in human society,
always accompanied by the birth of an important technology.

Computer and electronics make surveying and mapping industry achieve a span from the analog age to the digital age.

And the development of Internet technology further opens the prelude of surveying and mapping information age.

In the form of the ubiquitous,
internet is penetrating and fusion in all corners of the surveying technology,
and setting off an unprecedented reconstruction and transformation.

In the dawn of a new era,
south is walking in front of it to craft Galaxy 1plus which opening a '+' era of high-precision positioning applications.

KEY FEATURES

Intelligent platform

Linux OS

New generation of embedded Linux operating system platform improves RTK performance and work efficiency. Its operating efficiency is higher; a unique core processing mechanism which can respond to more than one command at one time; it starts faster and more responsive in real time. While the stability of system is much higher, it can be adapt to the job of longer uninterrupted power.

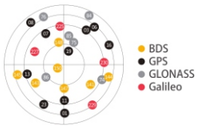
Web UI management platform

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

Wireless data communications

Wi-Fi

New Wi-Fi module, not only can be used as data link to access to internet, but also can be as a hotspot which can be accessed by any other smart devices to configure the receiver.



Full satellite constellations support

Equipped with most advanced GNSS boards, SOUTH Galaxy G1 Plus system can track most signals from all kinds of running satellite constellations, especially supports the signals from Beidou3, also is able to get position result only with Beidou signal.

IMU auxiliary tilt measurement

The uniquely capable IMU sensor is able to greatly improve the productivity of RTK measurement because of its excellent performances, fast initialization, calibration-free, not affected by magnetic environment. Rapidly measures points without leveling instrument, as long as pole tip reaches the target.

Shake tilt measurement

It's a tilt measurement technology based on the patented core algorithm. No magnetic sensor use, calibration-free, anti-jitter, unlimited tilt angle.

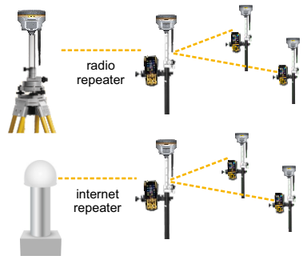
Intelligent data communication

Built-in network module

Equipped with standard 4G module which supports TDD-LTE/FDD-LTE 4G network, and downward compatible with WCDMA/CDMA2000 3G and GPRS/EDGE 2G network. Smart PPP dialing technology can auto dial which makes the Galaxy G1 Plus keeping online continuously during the survey.

Built-in functional digital radio

SOUTH self-developed digital radio which can fully support the communications with the mainstream radio protocols: Trimtalk450s, SOUTH, SOUTH+, SOUTHx, huace, ZHD, Satel. Realize the random switching of the radio range 403MHz-473MHz and the power level as well.



Radio repeater: The rover can broadcast the corrections via internal radio to other rovers after receiving the radio differential signal from Base station.

Internet repeater: The rover can broadcast the corrections via internal radio to other rovers after received the network differential signal from CORS station.

Intelligent technology

Storage technology

Internal 8GB SSD and it supports external USB storage.
Supports STH, RINEX raw data storage and the sample rate can reach to 50Hz.
Supports automatic data storage cycle, the data will be automatically deleted when the space is not enough.
Disk-On-key which can easily copy the data to external U disk.

Dual-battery system

The new design for battery house can support 2 batteries installed, that is able to last longer time for common field work!

iVoice

Intelligent iVoice can voice broadcast the current receiver status and operation guide in real time, it supports multiple languages.

Smart power pole supply technology

External power pole can provide up to 10 hours of power. It also can display the remaining power in real time.