SPECIFICATIONS

Satellite Signals Tracked Simultaneously	
Signal tracking	336 channels, 220 channels (optional)
	BDS B1,B2,B3
	GPS L1C/A,L1C,L2C,L2E
	GLONASS L1C/A,L1P,L2C/A,L2P
	SBAS L1C/A
	Galileo GIOVE-A,GIOVE-B,E1,E5A,E5B
	QZSS,WAAS,MSAS,EGNOS,GAGAN
L-Band	Trimble RTX
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
Static GNSS surveying	Horizontal: 2.5mm+0.5ppm Vertical: 5mm+0.5ppm
Real-time kinematic surveying	Horizontal: 8mm+1ppm Vertical: 15mm+1ppm
Trimble RTX	Horizontal: 4-10cm (5-30min) Vertical: 8-20cm (5-30min)
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	-30°C~+65°C
Storag	-40°C~+80°C
Humidity	95% Non-condensing
Waterproof/Dustproof	IP68 standard, protected from long time immersion to depth of 1m
	IP68 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: >10h (static mode), >6h (internal UHF base mode), >8h (rover mode)

Communications	
I/O port	5–PIN LEMO port, 7-PIN USB port (OTG)
	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, SOUTH, SOUTH+, huace, Hi-Target, Satel
Cellular Mobile Network	TDD-LTE/FDD-LTE 4G modem, downward compatible with WCDMA/CDMA2000 3G and GPRS/EDGE 2G network
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
	Support 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+, 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, fully support 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 thermomter sensors, adopting intelligent temperature control technology which can mornitor and
	adjust the temperature of receiver in real time

SOUTH
Target your success

GALAXY G1 Plus
— Innovative GNSS Receiver —
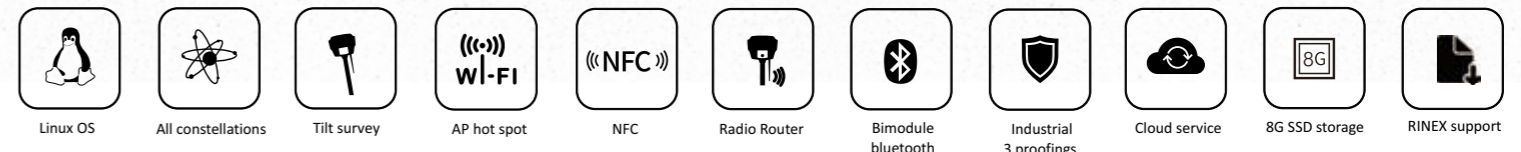
Linux OS	All constellations	Tilt survey	WI-FI AP hot spot	NFC	Radio Router	Bimodule bluetooth	Industrial 3 proofings	Cloud service	8G SSD storage	RINEX support

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.

WI-FI

Bluetooth
Equipped with dual-mode Bluetooth v4.0 standard which is able to connect the other smart devices and compatible with Bluetooth v2.1 standard. It not only enlarges the work range but also makes the data communication become more stable.

NFC
A light touch can be successfully paired which makes the connection become faster and more convenient.

GPS GLONASS BDS GALILEO   Tilt survey   Electronic bubble   Magnesium alloy shell   All-round protection design

30°

Data Link

Built-in functional digital radio
SOUTH self-developed digital radio which can fully support the communications with the mainstream radio protocols: Trimtalk450S, TrimMark3, PCC EOT, and SOUTH. Realize the random switching of the radio range 410MHZ-470MHZ and the power level as well.

Radio repeater: The rover can broadcast the corrections via internal radio to other rovers after received the radio differential signal.

Internet repeater: The rover can broadcast the corrections via internet to other rovers after received the network differential signal.

radio repeater

internet repeater

Built-in network module
Standard 4G module which supports WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network and downward compatible with 3G GPRS/EDGE. Smart PPP dialing technology can auto dial which makes the G1 PLUS keeping online continuously during the survey.
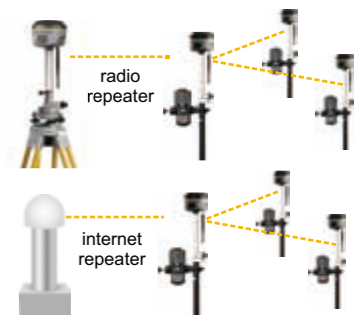
Intelligent technology

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.

8GB

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!
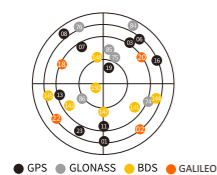
iVoice
Intelligent iVoice can voice broadcast the current receiver status and operation guide in real time, it supports multiple languages.
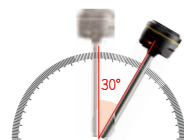
Smart power pole supply technology
External power pole can provide up to 10 hours of power. It also can display the remaining power in real time.