SPECIFICATIONS

Satellite Signals Tracked Simultaneously	
Signal tracking	220 channels, 555 channels(optional)
	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,GIOVE-B,E1,E5A,E5B
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
Network RTK	Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm
RTK initialization time	2~8s
User interaction	
Operaing system	Linux
Buttons	Single button operation
Indicators	Three 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	129mm(Diameter)x112mm(Height)
Weight	1kg(battery included)
Material	Magnesium aluminum alloy shell
Operating	-45°C~+60°C
Storag	-55°C~+85°C
Humidity	100% 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 3 meters pole drop onto the cement ground naturally
Power Supply	9-25V DC, overvoltage protection
Battery	Rechargeable, removable Lithium-ion battery, 7.4V; standard four batteries power package(optional)
Battery life	Single battery: >16h (static mode), >10h (internal UHF base mode), >12h (rover mode)
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
	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 —

Be captivated by...

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

1. Bluetooth indicator
2. DATA interaction
3. Satellite indicator
4. Power key
5. Battery housing
6. Loudspeaker
7. UHF antenna interface
8. Standard LEMO RS232(5 pins)
9. USB

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.

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.

Linux OS

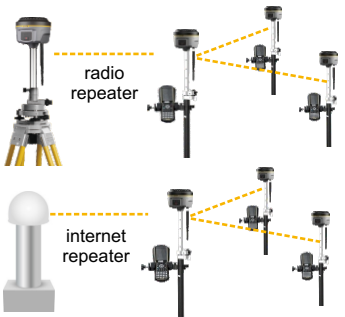## Data Link

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.

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.

radio repeater

internet repeater

Intelligent technology

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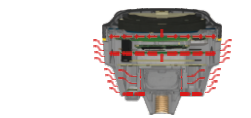Supports STH, RINEX raw data storage and the sample rate can reach to 50Hz.
Supports automatic data storage cycle, the data will be automatically deleted when the space is not enough.
Disk-On-key which can easily copy the data to external U disk.

Temperature control technology
Built-in sensitive thermometer sensors can monitor the temperature of each integrated modules in real time and then adjust it to make sure the receiver is in a best status.

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

Power supply technology
External power package can load 4 standard batteries and provides up to 28 hours of power. It also can display the remaining power in real time.

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