SPECIFICATIONS

GALAXY G1S

Cost-effective, versatile, portable

Surveying Performance	
Channel	220 Channels
Signal Tracking	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, 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$0.25 m + 1 ppm
	Vertical: $\pm$0.50 m + 1 ppm
	SBAS positioning accuracy: typically<5m 3DRMS
Static GNSS Surveying	Horizontal: $\pm$2.5 mm + 0.5 ppm
	Vertical: $\pm$5 mm + 0.5 ppm
Real-Time Kinematic Surveying	Horizontal: $\pm$8 mm + 1 ppm
(Baseline<30km)	Vertical: $\pm$15 mm + 1 ppm
	Horizontal: $\pm$8 mm + 0.5 ppm
Network RTK	Vertical: $\pm$15 mm + 0.5 ppm
	RTK initialization time: 2~8s
Physical	
Dimension	12.9 cm×11.2cm
Weight	970g (including installed battery)
Material	Magnesium aluminum alloy shell
Environmental	
Operating	-45℃ ~ +60℃
Storage	-55℃ ~ +85℃
Humidity	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	Not operating: Withstand 2 meters pole drop onto the cement ground naturally
	While: Withstand 40G 10 milliseconds sawtooth wave impact test
Electrical	
Power Consumption	2W
Battery	Rechargeable, removable Lithium-ion battery
Battery Life	Single battery: 7h (static mode)
	5h (internal UHF base mode)
	6h (rover mode)
Communications and Data Storage	
I/O Port	5PIN LEMO external power port + RS232
	7PIN LEMO RS232 + USB
	1 network/radio data link antenna port
	SIM card slot
Wireless Modem	Integrated internal radio receiver and transmitter 0.5W/2W
	External radio transmitter 5W/25W
Working frequency	410-470MHz
Communication protocol	TrimTalk450s, TrimMark3, PCC EOT, SOUTH
Cellular Mobile Network	WCDMA3.5G network communication module, GPRS/EDGE compatible, CDMA2000/EVDO 3G optional
Double Module Bluetooth	BLEBluetooth 4.0 standard, support for android, ios cellphone connection
	Bluetooth 2.1 + EDR standard
NFC Communication (Optional)	Realizing close range (shorter than 10cm) automatic pair between Galaxy G1 and controller (controller equipped NFC wireless communication module needed)
Data Storage/Transmission	4GB internal storage, more than 3 years raw observation data (about 1.4M/day), based on recording from 14 satellites
	Plug and play mode of USB data transmission
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
	Network model support: VRS, FKP, MAC, supporting NTRIP protocol
User Interaction	
Buttons	One-button operation, visual operation, convenient and efficient

- GPS|GLONASS|BEIDOU|GALILEO
- 4GB MASS STORAGE
- SOUTH,TRIMTALK PROTOCOLS
- BLUETOOTH 4.0|NFC CHIP

G1 s inherits alomost all of advanced fratures from G1, except tilt sensor,so it's more cost-effective, power-saving. G1 s is also equipped with trimble BD970 mainboard. Along with GNSS technology development, G1 s now supports GPS, Glonass, Beidou, also galileo constellation.
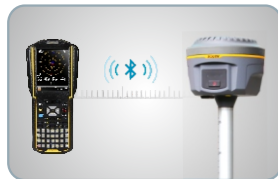
STRUCTURE

1. Bluetooth indicator
2. DATA interaction
3. Satellite indicator

4. Power key
5. Battery housing
6. Loudspeaker

7. UHF/GSM antenna interface
8. Standard LEMO(5 pins)
9. USB/RS232

KEY FEATURES

Powerful new bluetooth module

Equipped with bluetooth 4.0 module, which supports receiver to work well with smartphone and tablet etc, also making bluetooth communication faster and more stable.

Full satellite constellations support

Equipped with most advanced GNSS boards, SOUTH Galaxy G1 s system can track most signal from all kinds of running satellite constellation, especially support B1,B2 and B3 signal from BeiDou, also is able to get position result with only BeiDou signal.

NFC function

The internal NFC module can make the complicated bluetooth communication more simple and easier.

Advanced data-link module

Integrated with new and excellent datalink system, SOUTH Galaxy G1 is compatible with current radio protocols in the market, also supports all kinds of network types to access CORS seamlessly.

CONTROLLERS

X11 Pro
• 72 channels all-in-vien tracking, L1 C/A
• Windows Mobile 6.5
• AM335X 1GHz CPU
• 5MP integrated camera
• 3.5G network module
• 8G mass storage

X11 Lite
• Windows Mobile 6.5
• AM335X 1GHz CPU
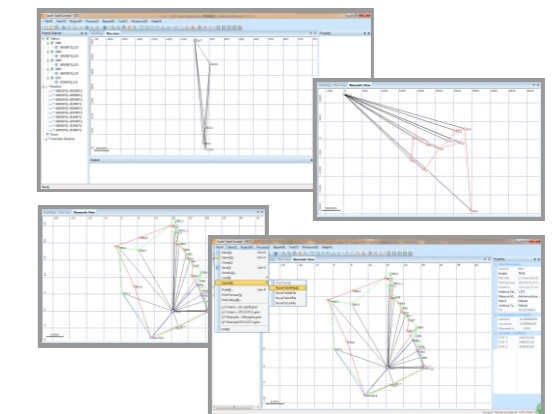• 512M RAM
• 8G mass storage
• IP67

X3 Pro
• Windows Mobile 6.5
• A8 1GHz CPU
• 1G RAM
• 5MP camera
• 3G network module
• 8G mass storage expandable

SOFTWARE

STC is a new post-processing software that integrates static data processing and kinematic adjustment

-Antenna manager with popular receiver types
-Compatible with numerous data format
-Update online
-Abundant report exporting
-Fast processing and clear display
-Transformable to RINEX format
-Full options for result Export
-Powerful baseline settings
-Manually edit and filter satellite data for best result

SOUTH Total Control Software

Field Software

FIELDGenius

Field Genius is a powerful survey data collection software from Canada. Advanced Roading, Surfacing, Slope Staking, Code Free Linework, Smart Points and GPS support and Live Graphics make FieldGenius the choice of organizations that value productivity. Multi-language is available,which already supported all of South GPS models.
(Need to purchase individually)