## **SPECIFICATIONS**

Signal tracking   336 channels, 692 channels (optional)	SI ECII ICATIONS	
BOS 81 BZ.83 GPS 11/CALIC/ELIZELE LS GPS 11/CALIC/ELIZELE GPS 11/CALIC/ELIZELE LS GPS 11/CALIC/ELIZELE GP	Satellite Signals Tracked Simultane	
GPS LTOALTC./ECLZELIS GROWSS LTOALTC./ECLZELIS GROWSS LTOALTC./ECLZELIS GROWSS LTOALTC./ECLZELIS GROWSS LTOALTC./ECLZELIS SRAS LTOALS (just for the settletles supporting LS) GRIBS CROVES AS CROVES AS LEGIS ACREA TO LOAD CONTROL OF THE CROWS AS LEGIS AS LEGIS ACREA TO LOAD CONTROL OF THE CROWS AS LEGIS AS LEGIS ACREA TO LOAD CONTROL OF THE CROWS AS LEGIS	Signal tracking	
GLONASS 1:COAL TELECOAL CPIL 3  SBAS 1:COAL State for the sealibles supporting 15) Gailles GLOYE A GLOYE BELEAR ESP Positioning output rater 11z-2-5ft a supports Initialization rates the specific process of the support		
SRAS LICALS (past for the satellities supporting LS) Galeto GIOVEA SCIOVE-BE LESE SES GASS WASA MSAS CSANOS (ACSAN ITX function (SSA channels version supports) Initialization time (10s Initialization time (10s) Initialization time (10s) Initialization time (10s) Initialization time (10s) SSAS positioning accuracy/lypically-cfm 3DRNS SSAS positioning a		
Galleo GIOVE-A GIOVE-B EL ESA ESB  GZSS WAMAS MSAS EGNOS GAGAN  RTX Linction (336 channels version supports)  CRISS features  Proteinring output rett Htt-50Hz  Intelization intelization resistance  Proteinring output rett Htt-50Hz  Intelization freshible / 28.09Hz  Code differential GNSS positioning  Horizontal: 30.29m+1ppm Vortical: 30.50m+1ppm  Static GNSS surveying  Horizontal: 30.29m+1ppm Vortical: 30.50m+1ppm  Read-time kinematic surveying  Horizontal: 3.50m+0.3ppm Vertical: 3.50mm-0.5ppm  Read-time kinematic surveying  Horizontal: 4.50mm-0.5ppm Vertical: 3.50mm-0.5ppm  Read-time kinematics surveying  Horizontal: 4.50mm-0.5ppm Vertical: 3.50mm-0.5ppm  Read-time kinematics unceying  Horizontal: 4.50mm-0.5ppm Vertical: 3.50mm-0.5ppm  Read-time kinematics surveying  Horizontal: 4.50mm-0.5ppm Vertical: 3.50mm-0.5ppm  Horizontal: 4.50mm-0.5ppm Vertical: 3		
CRSS features RTX function (356 channels version supports) Positioning output rate: 11-t-2-6012 Intellization related (158 Inteli		
RTX function (336 channels version supports)  Positioning output rate 11th: 501th: 2 Initialization free (108 Initialization free) (108 Initialization free) (108 Code differential GNSS positioning Code differential GNSS positioning State GNSS surveying Horizontal: 2.5 5mm+ 1,55mm Vertical: 4.0 5mm+ 1,55mm State GNSS surveying Horizontal: 2.5 5mm+ 1,55mm Vertical: 5mm+ 0.5 5mm Fast static Horizontal: 2.5 5mm+ 1,55mm Vertical: 5mm+ 0.5 5mm Real-time kinematic surveying Horizontal: 4.3 5mm+ 1,55mm Vertical: 4.5 5mm+ 0.5 5mm Real-time kinematic surveying Horizontal: 4.3 5mm+ 1,55mm Vertical: 4.5 5mm+ 0.5 5mm RTK initialization time User in the surveying of the survey in the survey in the surveying of the survey in the surveying of the survey in the survey i		
Positioning prosition Code differential GNSS positioning Initialization free victor Initialization reliability. 99 99%.  Positioning prosition Code differential GNSS positioning Initialization reliability. 99 99%.  SALS positioning SALS positio		QZSS,WAAS,MSAS,EGNOS,GAGAN
Intellization times < 10s. Intellization procession  Code differential GNSS positioning  Stats positioning accuracy/spically-Sem 30PMS  Stats GNSS surveying  Stats GNSS surveying  Stats from 5 ppm  Vertical: ±0.50m+1 ppm  Vertical: ±0.50m+1 ppm  Stats static  From 5 ppm  Horizontal: ±10mm 5 ppm  Werlical: ±15mm+1 ppm  Vertical: ±15mm+1 ppm  Merlical: ±15mm+1 ppm  Merlical: ±15mm+1 ppm  Werlical: ±15mm+1 ppm  Horizontal: ±10mm 5 ppm  Horizontal: ±10mm 5 ppm  Horizontal: ±10mm+1 ppm  University times 5 ppm  University times 5 ppm  University times 5 ppm  Horizontal: ±10mm+1 ppm  University times 5 ppm  University times 5 ppm  Horizontal: ±10mm+1 ppm  Horizontal: ±10mm+1 ppm  University times 5 ppm  University times 5 ppm  Horizontal: ±10mm+1 ppm		RTX function (336 channels version supports)
Code differential CNRSS positioning Static GNRSS positioning Static GNRSS enveying Horizontal: ±0.5mm10.5pm Vertical: ±0.50mm10.5pm Vertical: ±5.5mm10.5pm Verti	GNSS features	Positioning output rate:1Hz~50Hz
Reational processor Code differential (RNSS positioning accuracy/typically-Sm 3PMS) Slatic GNSS surveying Horizontal: ±25mm16.5pm Vertical: ±5mm10.5ppm Fast static Horizontal: ±3mm10.3pm Vertical: ±5mm10.5ppm Real-time kinematic surveying Horizontal: ±3mm10.3pm Vertical: ±5mm10.5ppm Real-time kinematic surveying Number 1		Initialization time:<10s
Code differential CNSS positioning Static GNSS surveying Horizontal: 25 6mm10 5ppm Vertical: 25 6mm10 5ppm Vertical: 25 6mm10 5ppm Horizontal: 25 6mm10 5ppm Vertical: 25 6mm10 5ppm Verti		Initialization reliability:>99.99%
Code differential CNSS positioning Static GNSS surveying Horizontal: 25 6mm10 5ppm Vertical: 25 6mm10 5ppm Vertical: 25 6mm10 5ppm Horizontal: 25 6mm10 5ppm Vertical: 25 6mm10 5ppm Verti	Positioning precision	
SBAS positioning accuracy/spically-Sfm 30RNS  Hotzontal: 25mm-16.ppm Vertical: 25mm+0.5ppm  Fast static  Hotzontal: 25mm+10.ppm Vertical: 25mm+0.5ppm  Real-time kinematic surveying  SLink  Hotzontal: 3-10mm+1.ppm Vertical: 25mm+0.5ppm  Hotzontal: 3-10mm+1.ppm  SLink  Hotzontal: 3-10mm+1.ppm  SLink  Hotzontal: 3-10mm+1.ppm  Hotzontal: 3-10mm+1.p	Code differential GNSS positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50m+1ppm
Slatic GNSS surveying Horizontal: 42.5mm+0.5pm Vertical: 45mm+0.5pm Wertical: 45mm+0.5pm Real-time kinematic surveying Horizontal: 45mm+0.3pm Vertical: 45mm+0.5pm Vertical: 45mm+0.5pm Nertical: 45mm+0.5pm Nertical: 45mm+0.5pm Nertical: 45mm+0.5pm Nertical: 45mm+0.5pm Vertical: 45mm+0.5pm Nertical: 45mm+0.5pm Nertical: 45mm+0.5pm Vertical: 45mm+0.5pm Nertical: 45mm+0.5pm Vertical: 45mm+0.5pm Nertical: 45mm+0.5pm Vertical: 45mm+0.5pm Nertical: 45mm+0.5pm Vertical: 45mm		
Real-time (knownatic surveying)  SLink  Real-time (knownatic surveying)  Horizontals: 45 fmm+10pm  Verticals: 8-20cm (6-30min)  Vert	Static GNSS surveying	
Real-time kinematic surveying  SLink  Horizontal: 3-10cm (5-30min)  Vertical: 8-20cm (6-30min)  Vertical: 8-20cm (		
SLink Horizontals 3-10cm (5-30min) Vertical: 8-20cm (5-30min)  Liber interaction  Operating system  Linux		
RTK Intialization time User interaction Operaing system Unix Buttons Indicators Five indicate lights Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB Wice guide Noice guide Noice intelligent voice technology provides status and voice guide Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define Secondary development Indiratory and the part of the providing secondary development package Indiratory and the part of th		
User Interaction		
Communication   Communicatio		2.08
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   Voice indigent voice technology provides status and voice guide   Voice of the providing secondary development   Hardware performance   Dimension   135mm(Diameter)xi 25mm(Height)   Weight   1,35kg (with two batteries)   Material   Magnesium aluminum alloy shell   Operating   40°C-46°C   Storag   40°C-46°C   Humidity   95% Non-condensing   Humidity   95% Non-condensing   Hier standard, protected from long time immersion to depth of 1m   Hier's standard, protected from long time immersion to depth of 1m   Hier's standard, fully protected against blowing dust   Withstand 2 meters pole drop onto the coment ground naturally   Power Supply   9-25V DC, overvoltage protection   Battery solution   Supporting one or two batteries installed, supporting power pole connection   Battery is solution   Supporting one or two batteries installed, supporting power pole connection   Battery is solution   Supporting one or two batteries installed, supporting power pole connection   Battery is solution   Supporting one or two batteries installed, supporting power pole connection   Battery is solution   Supporting one or two batteries installed, supporting power pole connection   Battery is solution   Supporting one or two batteries installed, supporting one had been constalled for swappable batteries works for more than 16 hours.   Wireless modem   Sullin radio, in Web/W3V webtable, typically work range can be BKM   Radio and internet repeater switchable   Communication Protocol   Controlled on the support of the common   Receiving deep solution   Controlled on the support of the more than 10m   sullin radio, in such table   Wireless modem   Sullin radio, in such table   two transitions of the sullin radio   Receiving deep solution   Controlled on the support   Wireless modem   Sullin radio, in sullin radio   Controlled on the sullin radio   Recei		Lieux
Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB		
Web UI Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB Vioice guide Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define Providing secondary development Hardware performance Dimension Dimension 1,35mm(Diameter)x125mm(Height) Weight 1,39kg (with two batteries) Material Magnesium aluminum alloy shell Operating 40°C-465°C Storag 40°C-465°C Humidity 95% Non-condensing HiP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long		
Noice intelligent viole technology provides status and voice guide   Noice intelligent viole technology provides status and voice guide		· · · · · · · · · · · · · · · · · · ·
Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define Providing secondary development package Dimension Dimension 135/mm(Diameter)x125/mm(Height) Weight 1,39kg (with two batteries) Material Magnesium aluminum alloy shell Operating 40°C+65°C Storag 40°C+65°C Humidity 95% Non-condensing Her Standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected from long time immersion to depth of 1m IP67 standard, protected against blowing dust Withstand 2 meters pole detop onto the cement ground naturally Power Supply 9,25V DC, overvoltage protection Sattery solution Sattery is a standard four batteries power package (optional Battery solution Supporting one or two batteries installed; supporting power pole connection Sattery is a standard of the standard four batteries power package (optional Sattery is a standard four batteries installed; supporting power pole connection Single battery; 28°L (static mode) And two installed not swappable batteries works for more than 16 hours. Communications I/O port  SPIN LEMO external power port + RS232, 7PIN external USB/OTG)+Ethernet 1 radio antenna interface, SIM card slot Usiliah nadio, TW/ZW/SW/SW switchable, typically work range can be 8KM Radio and internal repeater switchable Frequency Range 410-47/0MHz Communication Protocol Cellular Mobile Network Double Module Bluebooth Bluebooth 2.1 + EDR standard Realizing observable support for android, ios celiphone connection Bluebooth 2.1 + EDR standard WICH Hotspot  WECH Module Network Communication Realizing observable storage Standard WIFI Hotspot The WIFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control and moditor receiver To work as the datalink that receiver is able to broadcast and receive differential data via WIFI Data storag		
Providing secondary development package   Hardware performance	voice guide	
Hardware performance   135mm(Diameter's 125mm(Height)   1.39kg (with two batteries)   Material   1.39kg (with two batteries)   Material   1.39kg (with two batteries)   Material   1.39kg (with two batteries)   1.40°C~+65°C   1.40°		
Dimension  1 35km(Diameterk 125mm(Height) Weight 1 33kg (with two batteries) Material Magnesium aluminum alloy shell Operating 40°C+65°C Storag 40°C+68°C Humidity 95% Non-condensing Waterproof/Dustproof IP67 standard, protected from long time immersion to depth of 1m 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 Supply 9-25V DC, overvoltage protection Battery solution Supporting one or two batteries installed; supporting power pole connection Battery solution Supporting one or two batteries installed; supporting power pole connection Battery ife Single battery >8h (static mode) And two installed hot swappable batteries works for more than 16 hours.  SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet 1 radio antenna interface, SIM card slot Wireless modem  5PIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet 1 radio antenna interface, SIM card slot Bulli-in radio, IWI/2W/SW switchable, typically work range can be 8KM Radio and internet repeater switchable Prequency Range 410-470MHz Communication Friedunds Mobile Network WCDMA/CDMA/2000/TDD-LTE/FDD-LTE 4G network modern, downward compatible with 3G GPRS/EDGE Duble Module Bluetooth BLEBulestooth 0.3 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard NFC Communication Realizing dose range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed)  WFI Standard  802.11 b/g standard WFI Hotspot allows any mobile terminal to connect and access to the internal webserver for the control and modulor receiver To work as the datalink that receiver is able to broadcast and receive differential data via WIFI Data storage/Transmission Data Storage Support external USB storage and automatical cycle storage Changeable record interval,		Providing secondary development package
Majangsium aluminum alloy shell		
Material Magnesium aluminum alloy shell		
Agroc - 480°C   Storag		
Slorag		
Humidity Waterproof/Dustproof 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: 28h (static mode). And two installed hot swappable batteries works for more than 16 hours. Communications I/O port SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet 1 radio antenna interface, SIM card slot Wireless modem Bull-in radio, 11W/2W/3W switchable, typically work range can be 8KM Radio and internet repeater switchable Frequency Range Communication Protocol TrimTalk450s, TrimMark3, PCC EOT, SOUTH Collular Mobile Network WCDMA/CDMA/2000/TDD-LTE-FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE Double Module Blueboth Bluebooth Bluebooth Bluebooth Bluebooth Bluebooth Controller equipped NFC wireless communication module, switchable; allow to connect external WLAN card WIFI Standard WIFI Hotspot The WIFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control and moditor receiver To work as the datalink that receiver is able to broadcast and receive differential data via WIFI Data storage/Transmission Data Storage Support external USB storage and automatical cycle storage Changeable record interval, up to 50Hz raw data collection USB data transmission, supporting TPIHTTP data download Differential data format CMR+, SCMR+, RCM 2.1, RTCM 3.0, RTCM 3.1, RTCM 3.2 GPS output data format. MMFA 13B, PM, Palnea coordinates, Binary code, Trimble GSOF Network model support: VRS, FKP, MAC, fully support NTRIP protocol Incrtal sensing system IMU tilt angle Differential data format CMR+, SCMR+, RTCM 2.1, RTCM 2.2, RT		
IP67 standard, protected from long time immersion to depth of 1m   IP67 standard, fully protected against blowing dust   IP67 standard, fully protected against blowing dust		
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: 84h (static mode) And two installed hot swappable batteries works for more than 16 hours.   Communications	Waterproof/Dustproof	
Power Supply  Battery  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  SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethermet  1 radio antenna interface, SIM card slot  Wireless modem  Built-in radio, 1/W2W/3W switchable, typically work range can be 8KM  Radio and intermet repeater switchable  Frequency Range  410-470MHz  Communication Protocol  Cellular Mobile Network  WCDMA/CDMA/200/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, 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  To work as the datalink that receiver is able to broadcast and receive differential data via WIFI  Data storage/ Transmission  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: MNEA, BCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: MNEA, BCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: MNEA, SCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: MNEA, SCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1,		IP67 standard, fully protected against blowing dust
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   Supporting one or two batteries installed; supporting power pole connection   Supporting one or two batteries installed; supporting power pole connection   Single battery; >8h (static mode) And two installed hot swappable batteries works for more than 16 hours.	Shock and vibration	Withstand 2 meters pole drop onto the cement ground naturally
Battery solution Battery life Single battery: -8h (static mode). And two installed hot swappable batteries works for more than 16 hours.  Communications  I/O port SPIN 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 A10-470MHz Communication Protocol TrimTalk450s, TrimMark3, PCC EOT, SOUTH Cellular Mobile Network WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modern, downward compatible with 3G GPRS/EDGE Double Module Bluetooth BLEBluetooth 40 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, 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 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 USB data transmission, supporting FTP/HTTP data download USB data transmission, supporting FTP/HTTP data download Data Format Differential 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 til angle  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 which can momitor and	Power Supply	9-25V DC, overvoltage protection
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  SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet  1 radio antenna interface, SIM card slot  Radio and internet repeater switchable  Frequency Range  410-470MHz  Communication Protocol  Cellular Mobile Network  WCDMA/CDMA/2000/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 dose range (shorter than 10cm) automatic pair between receiver and controller  (controller equipped NFC wireless communication module, switchable;  allow to connect external WLAN card  WIFI  Standard  802.11 b/g 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  To work as the datalink that receiver is able to broadcast and receive differential data via WIFI  Data storage/ Transmission  BGS 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  Differential data format: CMR+, SCMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMR+, RTCM 2.1, RTCM 2.2, RTCM 3.0, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMR+, RTCM 2.1  Retwork model su	Battery	Rechargeable, removable Lithium-ion battery, 7.4V 3400mAh/per; standard four batteries power package (optional)
Battery life Single battery: >8h (static mode). And two installed hot swappable batteries works for more than 16 hours.  Communications  I/O port SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet  1 radio antenna interface, SIM card slot  Wireless modem Built-in radio, 1W2W/3/W switchable, typically work range can be 8KM  Radio and internet repeater switchable  Frequency Range A10-470M+12  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 BLEBiuetooth 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, 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  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+, SCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.1, RTCM 3.2  GPS output data format: CMR+, SCMRx, RTCM 2.1, RTCM 2.3, RTCM 3.1, RTCM 3.2  GPS output data format: VMR= 0183, PJK plane coordinates, Binary code, Trimble GSOF  Network model support: VRS, FKP, MAC, fully support NTRIP protocol  Inertial sensing system  IMU til angle  Controller software display electronic bubble, checking leveling status of the centering rod real time  Thermometer	Battery solution	
Continuinations	Battery life	
SPIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet   1 radio antenna interface, SIM card slot   Wireless modem		
1 radio antenna interface, SIM card slot		5PIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet
Built-in radio, 1W/2W/3W switchable, typically work range can be 8KM   Radio and intermet repeater switchable   Alio 470MHz	" o port	
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 WIFI Hotspot The WiFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control and moditor receiver 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+, 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 tit angle Controller software display electronic bubble, checking leveling status of the centering rod real time Thermometer Built-in thermometer sensors, adopting intelligent temperature control technology which can mornitor and	Wireless modem	
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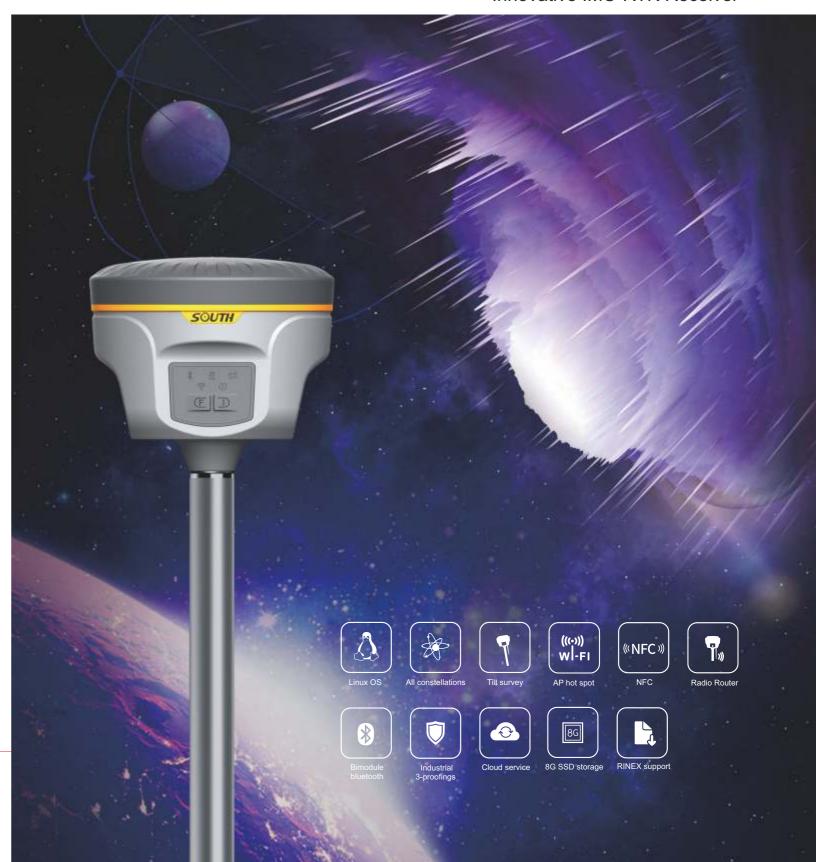
## SOUTH SURVEYING & MAPPING TECHNOLOGY CO., LTD.

Add: South Geo-information Industrial Park, No. 39 Si Cheng Road, Tian He IBD, Guangzhou 510663, China Tel: +86-20-23380888 Fax: +86-20-23380800 E-mail: mail@southsurvey.com export@southsurvey.com impexp@southsurvey.com gnss@southsurvey.com http://www.southinstrument.com http://www.southsurvey.com



# 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

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

## **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.





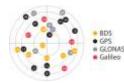
#### Web UI management platform

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

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

Disk-On-key which can easily copy the data to external U disk.



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.







