## **GALAXY G1 PLUS**

## **SPECIFICATIONS**

Satellite Signals Tracked Simultaneou	isly
Signal tracking	220 channels, 555 channels( optional)
oighai tracking	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+0.5ppm Vertical: ±15mm+0.5ppm
RTK initialization time	2~8s
User interaction	
Operaing system Buttons	Linux
Indicators	Single button operation
Web UI	Three indicate lights  Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB
Voice guide	
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	1 TOVIGING SECONDARY DEVELOPMENT PACKAGE
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
\A_C	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 Dretocal	Triantally 450 - Trian March 2, DCC FOT COUTH
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
	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection
Cellular Mobile Network Double Module Bluetooth	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard
Cellular Mobile Network	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE  BLEBluetooth 4.0 standard, support for android, ios cellphone connection  Bluetooth 2.1 + EDR standard  Realizing close range (shorter than 10cm) automatic pair between receiver and controller
Cellular Mobile Network Double Module Bluetooth  NFC Communication	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed)
Cellular Mobile Network Double Module Bluetooth	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable;
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Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable;
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Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard The WIFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard The WIFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control and moditor receiver
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  8GB SSD internal storage
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  8GB SSD internal storage Support external USB storage and automatical cycle storage
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  8GB SSD internal storage Support external USB storage and automatical cycle storage Changeable record interval, up to 50Hz raw data collection
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Transmission	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 Differential data format: CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Transmission	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 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
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage  Data Transmission Data Format	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 Differential data format: CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage  Data Transmission Data Format  Inertial sensing system	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 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
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage  Data Transmission Data Format	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 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
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage  Data Transmission Data Format  Inertial sensing system Tilt survey	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 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, PIK plane coordinates, Binary code, Trimble GSOF Network model support: VRS, FKP, MAC, fully support NTRIP protocol
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage  Data Transmission Data Format  Inertial sensing system Tilt survey  Electronic bubble	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 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  Built-in tilt compensator, correcting coordinates automatically according to the tilt direction and angle of the centering rod Controller software display electronic bubble, checking leveling status of the centering rod real time
Cellular Mobile Network Double Module Bluetooth  NFC Communication  External Devices  WIFI Standard WIFI Hotspot  WIFI data link Data storage/ Transmission Data Storage  Data Transmission Data Format  Inertial sensing system Tilt survey	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed) Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card  802.11 b/g standard 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  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 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, PIK plane coordinates, Binary code, Trimble GSOF Network model support: VRS, FKP, MAC, fully support NTRIP protocol