

GINTEC

G20



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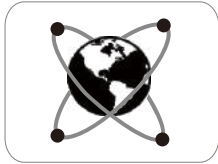
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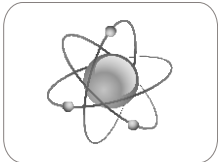
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Key Features



Full Constellation Tracking

G20 can track full constellation GNSS satellites, such as GPS, Glonass, Galileo and BeiDou, and so on. And it maximizes the tracking to observe all visible GNSS satellite signals, providing the best performance for real-time reliable data accuracy and measurement results.



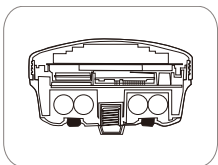
UGypsophila RTK Processing Tech

Based on Unicore's Nebulas-II multi-system, multi-core, high precision SOC, G20 optimizes data computing capabilities of multi-dimensional RTK-matrix and makes full use of data sharing capabilities. It means that G20 can use and lock more satellites to compute the location info even if the CORS/Base only provides dual-satellite positioning reference data.



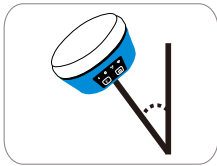
Performance

G20 can quickly search available satellites and soon get fixed solution. With its advanced technology G20 works well even in harsh environment such as under heavy foliage.



Highly Integrated Internal Components

The innovative technology makes G20 have excellent combination with GNSS, 4G, Bluetooth and Wi-Fi antenna. G20 is also inserted with highly integrated Bluetooth, Wi-Fi and 4G network modules, which reduces internal signals crosstalk.



IMU Tilt Survey Compatible with SurPad

G20 is integrated with new calibration-free IMU module, which is based on 4th generation pole-tilt compensation tech. It enables points to be measured or staked out even if surveyors tilt the pole while walking. Surveyors could pay more attention to their job at hand and complete work faster.



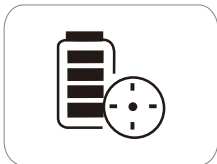
4G Network

With an advanced 4G module, G20 guarantees more convenient and more stable network communication and data transmission.



Multi-Protocol Compatible Internal Radio

Adopting wide-band and low-power 410~470MHZ internal radio, G20 can be set transmitting and receiving data in various protocols within 5km work distance.



Fast-Charge Tech and Long-Life Battery

With built-in large- capacity lithium battery, G20 can work maximum 18h (rover/static mode) or 16h (base mode) without stopping. Smart power button design can indicate battery level even in shutdown status.



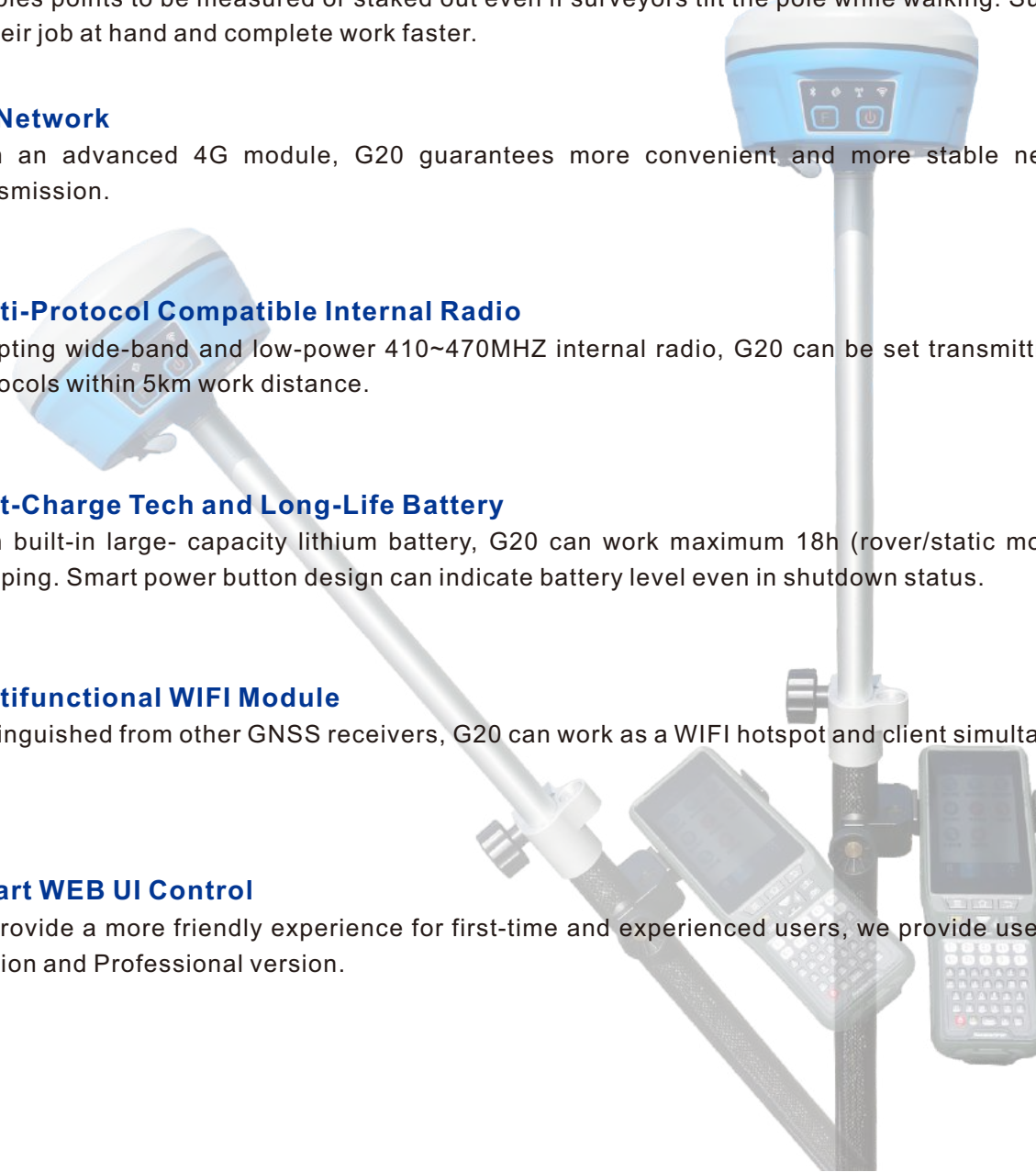
Multifunctional WIFI Module

Distinguished from other GNSS receivers, G20 can work as a WIFI hotspot and client simultaneously.



Smart WEB UI Control

To provide a more friendly experience for first-time and experienced users, we provide users with 2 kinds of WEB UI: Smart version and Professional version.



Specifications

• GNSS

Channel	800
Satellites	GPS: L1,L2,L5 GLONASS: L1,L2 BDS: B1,B2,B3 Galileo: E1,E5A,E5B QZSS: L1,L2,L5 SBAS: L1
Cold start	<40s
Signal recapture	<1s

• Accuracy

Static Accuracy	Horizontal: $\pm(2.5+0.5 \times 10^{-6}D)$ mm Vertical: $\pm(5.0+0.5 \times 10^{-6}D)$ mm
DGPS Accuracy	Horizontal: 0.4m; Vertical: 0.8m
RTK Accuracy	Horizontal: $\pm(10+1 \times 10^{-6}D)$ mm Vertical: $\pm(15+1 \times 10^{-6}D)$ mm
Time Accuracy	20ns
Tilt Measurement Accuracy(within 30°)	<2cm
Update Frequency	5Hz (Can pay to activate 20Hz)

• POWER

Battery	Built-in Battery,9750mAh 7.4V
Duration	≥16h
Input	12V/2A DC

• Physical

Material	Magnesium alloy main body, ABS/PC top cover
Dimension	156mm*102mm
Weight	1.4KG

• SYSTEM

Operation System	Linux
Memory	Internal 32G; TF Extended
Bluetooth	V2.1+EDR / V4.0 Dual Mode
WIFI	802.11 b/g/n
4G Network	LTE FDD: B1/B3/B5/B8 LTE TDD: B38/B39/B40/B41 TD-SCDMA: B34/B39 CDMA: BC0 WCDMA: B1/B8 GSM: 900/1800MHz
Internal UHF	Power: 1W Frequency: 410~470MHz Work Distance: 5km in good environment
Protocol	TrimTalk 450S, TrimMark III (19200), SOUTH, PCC-EOT, ect
Tilt Survey	IMU Tilt Survey Compatible with SurPad

• INTERFACE

TNC	UHF Antenna
2pin	Charge
7pin	NMEA Out Put
Other	Nano SIM Slot and TF slot

• Operation

Button	Power Button and Function Button
Indicator	5 indicators: Satellites, Datalink, Bluetooth, WIFI Status, Power
Voice Prompt	TTS Bilingual Voice

• ENVIRONMENT

Work Temperature	-20°C ~+70°C
Stock Temperature	-40°C ~+85°C
Waterproof/Dustproof	IP67 Standard
Shock and Vibration	Withstand 1.5m pole drop onto the cement ground
Humidity	100%