Specifications

Measurement Accuracy

Static Mode Accuracy	H:±2.5mm+0.5ppm V:±5.0mm+0.5ppm
Single Point Solution Accuracy	H:1.5m V:2.5m
Differential Solution Accuracy	H:0.4m V:0.8m
RTK Accuracy	H:±8.0mm+1ppm V:±15.0mm+1ppm
Time Accuracy	20ns
Visual Survey Accuracy	2-5cm(≤10m)
Laser Measurement Accuracy	<2.5cm within 5m <5cm within 15m
Tilt Measurement Accuracy	≤2cm，within 60°

Laser - Easy

Type	Red Light
Frequency	Normal mode:10Hz Rapid mode: 20Hz
Best Survey Distance	≤15m
Range Resolution	1mm
Ranging Accuracy	2mm @1σ

Camera

Front Camera	
Lens Field of View	96.8°
Camera Focal Length	3mm
Pixel Size	2.9*2.9μm
Active Pixel Array	1920*1080(Global Shutter)
Bottom Camera	
Lens Field of View	83.4°
Camera Focal Length	3mm
Pixel Size	2.9*2.9μm
Active Pixel Array	1920*1080

Physical Properties

Shell Material	Magnesium alloy main body. ABS/PC top cover
Weight	1068g
Dimensions	Φ135*90mm
Indicator Lights	Satellite Signal Light, Data Transmission Light, Current Battery Light
Port	SIM Card Slot, UHF Port, Type-c
Type-C	External radio，Power, Data transmission(NMEA,RS232, etc.)

Power

Battery Life	Static 20H,Rover 16H,Base 10H
Power Supply	12V/1.5A 9V/2A 5V/2A 3.6V_13200mAh

Positioning

Channels	1408
GPS	L1C/A,L1C,L2P(Y),L2C,L5
GLONASS	G1,G2,G3
BDS	B1I,B2I,B3I,B1C,B2a,B2b
GALILEO	E1,E5a,E5b,E6
QZSS	L1,L2C,L5,L6
NAVIC(IRNSS)	L5
SBAS	L1C/A
PPP	B2B-PPP | E6-HAS
Positioning Frequency	1Hz 2Hz 5Hz 10Hz 20Hz 50Hz
Cold Start Time	<12s
Initialization Time	＜5s
Initialization Confidence	＞99.9%

System

Memory	32G
Data Transmission	4G/Bluetooth/WIFI/Radio
Bluetooth	V5.0,BLE
4G	LTEFDD:B1/B2/B3/B4/B5/B7/B8/ B12/B13/B19/B20/B25/B26/B28 LTE TDD:B38/B39/B40/B41 UMTS:B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
WIFI	802.11a/b/g/n
Radio Power	1W
Radio Frequency	410-470MHz
Radio Channel Quantity	Up to 99
Air Baud Rate	19200，9600，4800
Supported Protocols	Gintec Work,TrimTalk450s(T), TrimMark III, SOUTH, PCC-EOT, Hi-target, Satel, Farlink, etc.
Supported Languages	Chinese,English,Turkish,Polish, Korean,Indonesian,Spanish, Telugu,Russian, etc.

Environmental Adaptability

Operating Temperature	-30℃~+65℃
Storage Temperature	-40℃~+80℃
Water and Dust Resistance Rating	IP68
Operating Humidity	99.90%
Shock and Vibration	Withstanding 2m pole drop onto the cement ground

GINTEC | TEL: 8620-82514956 | Website: www.gintec.cn | Email: overseas@gintec.cn
ADD: Room606, Building A02, No. 83, Kaiyuan Avenue, Huangpu District, Guangzhou, Guangdong, China

GINTEC
TAKE POSITION ASSURED

GNSS Receiver

G50Ultra

Visual & Laser RTK

Vision: Capture the Multitude

Laser: Reach the Unreachable

Vision Meets Laser: What You See Is WhatYou Measure.

Visual Survey

Laser Survey

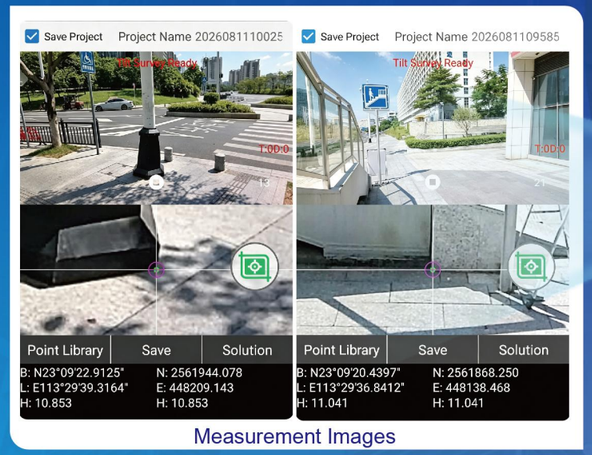
Augmented Reality (AR)

Non-Contact Measurement

Measure What You See — Visual Survey

Image-Based Surveying. Efficiency Reimagined.

Innovative image-based batch point collection simplifies the complex, giving you the edge in data acquisition speed.



Measurement Images

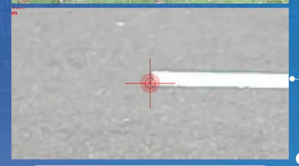
- Multi-engine Algorithm Calibration
  Proven Reliable Accuracy
- Integrated GNSS
  + IMU + Dual Cameras
- Shoot & Ready-to-Use
- Panoramic Dynamic Shooting
  60% Efficiency Boost

One device, Every scenario covered.

Reach the Unreachable — Laser-Easy

Measure any Objects Accurately

High-power laser and high reflectivity enable G50Ultra stable ranging across all object colors and materials.

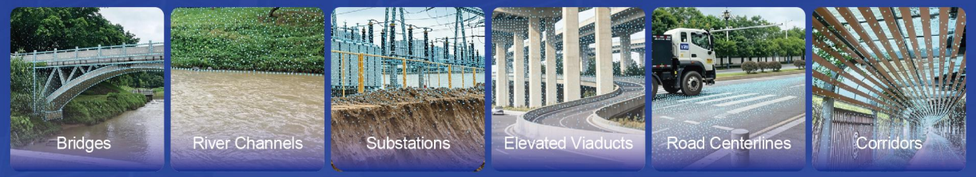


Measurement Images

Photos

Measurable in all complex scenarios

Non-contact batch measurement enables efficient multi-point acquisition, improving productivity and operator safety in complex scenarios.



G50Ultra:

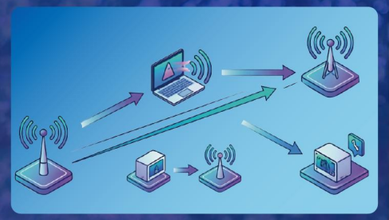
Visual Survey *for ultimate efficiency.*
Laser Survey *for uncompromising precision.*

Use vision measurement for multiple-point acquisition; laser measurement is more efficient for single points.
When pole-tip measuring is inaccessible: choose vision for multiple points, laser for one-point measurement.

Excellent Features

G50Ultra: Redefining RTK Measurement

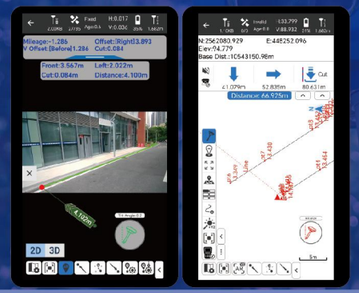
GINTEC G50Ultra is a flagship RTK integrating high-precision positioning and multi-dimensional measurement in one. Building on the brand's rigorous quality standards and outstanding performance, the G50Ultra innovatively combines non-contact laser ranging and image-based batch point collection technology, delivering a one-stop, high-efficiency solution for complex surveying scenarios.



G-OmniLink

Double Efficiency, Zero Loss

- Connect to the base station instantly with one click, doubling your work efficiency;
- Track locations in real time and say goodbye to the stress of losing equipment.



CAD Stakeout

Enhance Efficiency and Simplify Operations

- No manual point-library editing needed. Direct CAD drawing usage removes pre-prepared coordinate files for complex stakeout.
- Combined online map & CAD display enhances accuracy; AR guidance delivers intuitive experience to simplify stakeout workflows.

Reliability of RTK Positioning Engine

Flexible choice based on the situation

- **Low level**
  Has the fastest fix speed and the highest fix rate.
- **Ultra High level**
  has the best accuracy and reliability.

Seamlessly inherits the high stability and centimeter-level precision of traditional RTK, ensuring absolutely reliable measurement results.

G-FIX Correction Outage Technology

- Extending FIX solution up to 10mins
- Reducing downtime waiting to re-establish RTK corrections

GALILEO HAS/BDS PPP Service Supported

- HAS provides free high-precision PPP correction services on the Galileo E6-B signal to improve real-time user positioning performance.
- BDS PPP provides free BDS high precision PPP correction services within its coverage area.

Up To 120° Tilt Within 2.5cm Accuracy

- The use of 4th-generation measurement technology ensures the G50Ultra can still get fixed for tilt measurement work at even 120° .

Strict Quality Control

- The product undergoes a full-range of quality control procedures, from component screening and aging tests to multi-scenario field verification. Every procedure is strictly checked to guarantee stable and reliable performance under complex field conditions.