

# Specifications



## 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
Data Update Frequency	50Hz
Positioning Frequency	1Hz 2Hz 5Hz 10Hz 20Hz 50Hz
Cold Start Time	<12s
Initialization Time	<5s
Initialization Confidence	>99.9%



## 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
Tilt Measurement Accuracy	≤2.5cm within 120°



## Battery

Battery Life	Static 20h,Rover 16h,Base 10h
Power Supply	9V/2A MAX18W 3.6V_13600mAh



## Physical Properties

Shell Material	Magnesium-Aluminum Alloy
Weight	990g
Dimensions	Φ135*90mm
Button	Power Button
Indicator Lights	Satellite Signal Light, Data Transmission Light, Current Battery Light



## Laser - Easy

Type	Class 2, red
Range	0.05-49.99m By Daylight 0.05-99.99m By Moonlight
Distance Accuracy	2mm @1σ
Tracking Measurement	5-20Hz
Accuracy	2cm within 5m 3cm within 10m



## System

Operating System	Linux
Memory	8G
Data Transmission	4G/Bluetooth/WIFI/Radio
Bluetooth	V5.0,BLE
WIFI	802.11a/b/g/n
Radio Power	1W
Radio Frequency	410-470MHz
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, Polish, Turkish, Korean, Indonesian, Spanish, Telugu, Russian, etc.



## Camera

Number of Lenses	2
Front Lens Field of View	83.4°
Front Sensor Pixel	2 Mega Pixel
Front Camera Focal Length	5m
Front Sensor Resolution	1920*1080
Bottom Lens Field of View	83.4°
Bottom Sensor Pixel	2 Mega Pixel
Bottom Camera Focal Length	2m
Bottom Sensor Resolution	1920*1080



## Environmental Adaptability

Operating Temperature	-30 C~+65 C
Storage Temperature	-40 C~+80 C
Water and Dust Resistance Rating	IP68
Shock and Drop Resistance	1.8m drop onto a rod
Operating Humidity	99.9% non-condensing

\* LASER RADIATION: AVOID DIRECT EYE EXPOSURE

**GINTEC**  
TAKE POSITION ASSURED



REACH THE **UNREACHABLE**

G50 Laser RTK, Precise Measurement, Your Choice Of Confidence.

**GINTEC**

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# Reach The Unreachable

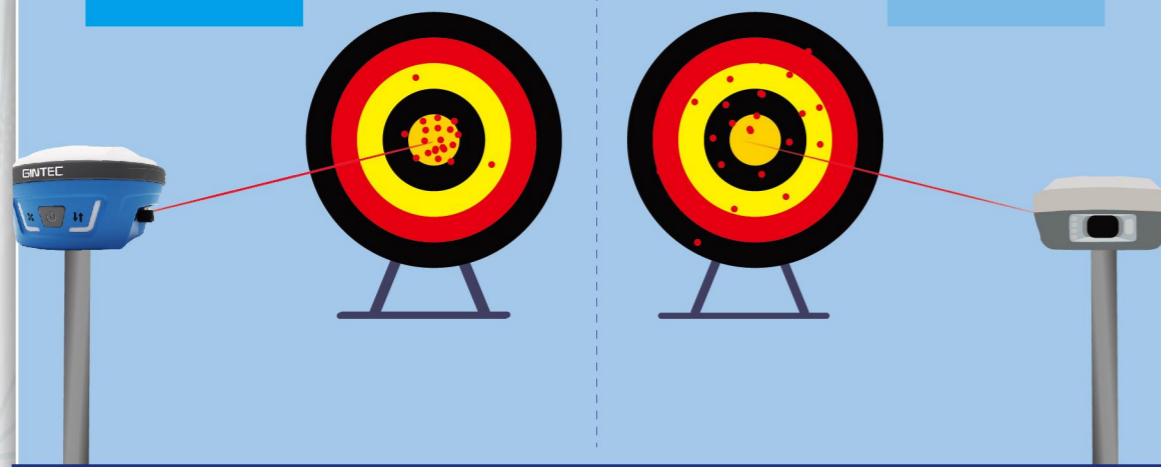
## Laser-Easy

### 1 Higher Laser Positioning Accuracy and Stability

G50 exhibits small data variation after multiple measurements under the same conditions. It stands out itself by adopting Mileseeey's leading edge EDM laser unit & unique Laser-Easy laser ranging algorithm, ensuring both the accuracy and stability of the data.

G50

Others

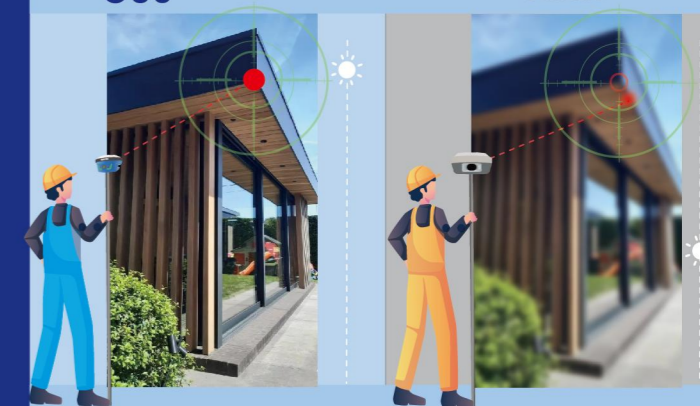


### 2 Clearer & Brighter Laser Spot

Emitting Class 2 red laser, G50 targets the objects in a brighter and clearer laser point, achieving more efficient laser measurement.

G50

Others



Measurement Image

Real Photo



### 3 Measure any Objects Accurately

With higher-intensity laser emission and superior reflectivity, G50 maintains stable ranging results in measuring objects, regardless of their colors and materials.

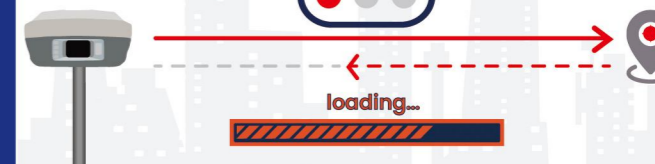
### 4 Valid Real-time Data Collection

Continuously collecting and transmitting laser data at up to 20Hz, coupled with supporting of CY software, G50 implements real-time measurement, greatly shorten the acquisition time.

G50



Others

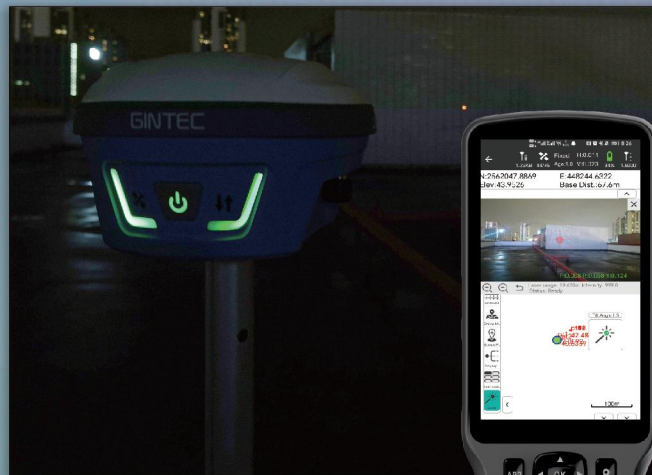


# Other Excellent Features



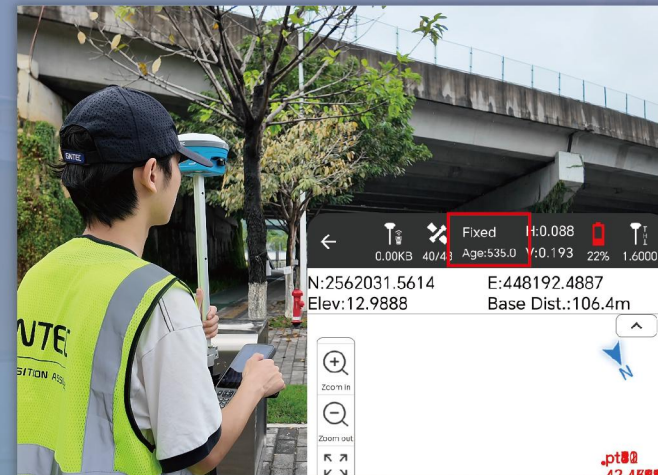
## Laser Staking-out

- By integrating the latest IMU, algorithms, and EDM characteristics, G50 supports real-time laser staking-out for difficult measurement points, ensuring accuracy, efficiency and ease of use.



## HD Stellar Camera

- Adaptive Exposure Adjustment under Different Lighting Conditions + IR Filter, it is more suitable for dark vision usage, effectively filtering infrared light and significantly improving nighttime shooting results.



## G-FIX Correction Outage Technology

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



## Up To 120° Tilt Within 2.5cm Accuracy

- The use of fourth-generation measurement technology ensures the G50 can still get fixed for tilt measurement work at even 120° measurement angles.



## 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.



## Augmented Reality (AR)

- Cutting-edge dual-camera system significantly enhances accuracy and guidance during measurement and staking out processes.

# CreateYours

self-developed, quick-response, android

PROFESSIONAL  
USER-FRIENDLY  
RICH FUNCTION MODULE  
SURVEY AND MAPPING  
HANDHELD ANDROID APPLICATION



Multiple Base Map  
Options: Google Map,  
WMS CAD



Pro+ Laser Survey  
Mode Specifically  
Designed for G50



Auto-Drawing  
Line/Polygon while  
Collecting Points



Powerful CAD Engine  
and Polygon Tools



DSM-based Terrain Staking



Easy to Conduct Road  
Design and Staking



Data Sharing within Team,  
One Click Easy Transmission

## P3 Handheld Controller

Trusted by Thousands: Join Our Users in Experiencing  
Exceptional Measurement Solutions!

A durable and practical tool for surveying and mapping. With IP67 industrial-grade waterproofing, dustproofing, and shockproofing. Its 5.5-inch FHD display, 800 Nits screen brightness, and 9000mAh battery provide clear visuals and over 18 hours of continuous operation. Experience the power to conquer any terrain with precision and efficiency.

### KEY FEATURES



**5.5 Inch**  
High-Brightness Display



**1080\*1920**  
Resolution



**8 Cores**  
Processors



**4+64G**  
RAM+ROM



**800 Nits**  
Sunlight-readable with  
enhanced visual experience



**Corning 3th  
Generation**  
Excellent strength and durability



**9000mAh**  
High-Capacity Battery

