

Specifications

Positioning

Channel: 1408
BDS: B1I/B2I/B3I/B1C/B2a/B2b
GPS: L1C/A /L1C/L2P(Y)/L2C/L5
GLONASS: G1/G2/G3
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
Cold start: <12s
Initialization time: <5s
Initialization reliability: >99.9%

Measurement accuracy

Static accuracy: H: $\pm 2.5\text{mm} + 0.5\text{ppm}$
V: $\pm 5.0\text{mm} + 0.5\text{ppm}$
RTK accuracy: H: $\pm 8.0\text{mm} + 1\text{ppm}$
V: $\pm 15.0\text{mm} + 1\text{ppm}$
Laser measurement accuracy: $5\text{m} \leq 2.5\text{cm}$
 $10\text{m} \leq 5\text{cm}$
Tilt measurement accuracy: $\leq 2\text{cm}$, 60° tilt

Laser ranging

Laser class: CLASS 2
Laser wavelength: 635nm
Ranging frequency: 20Hz (Fast mode)
Working distance for laser ranging: 0.1-60m
Resolution for laser ranging: 1mm
Accuracy for laser ranging: 2mm @1 σ

Environmental adaptability

Operating temperature: $-30^\circ\text{C} \sim +65^\circ\text{C}$
Storage temperature: $-40^\circ\text{C} \sim +80^\circ\text{C}$
Waterproof and dustproof level: IP68
Shockproof and anti-drop performance:
1.8m pole drop resistant
Operating humidity: 99.9%

Battery

Battery life: 16 hours of operating time
Power: 9V/2A, 5V/2A MAX18W 3.6V_13600mAh

Physical

Shell material: Magnesium aluminum alloy
Weight: 1030g
Dimension: $\Phi 140 \times 87\text{mm}$
Indicator: Satellites, datalink, battery

Camera

The count of lenses: 2
Field of view of front lens: 83.4°
Front sensor pixel: 200W
Focal length of front camera: 5m
Front sensor resolution: 1920*1080
Field of view of bottom lens: 83.4°
Bottom sensor pixel: 200W
Focal length of bottom camera: 2m
Bottom sensor resolution: 1920*1080

System

Operating system: Linux
Internal memory: 8G
Data transmission: 4G/Bluetooth/WIFI/Radio
Bluetooth: V5.0, BLE
WIFI: 802.11a/b/g/n
Network module: 4G network, Built-in antenna
Radio: Transceiver-integrated radio
Transmission power 1W
Radio frequency: 410-470MHz
Air baudrate: 19200, 9600, 4800
Supported protocol:
TrimTalk450s(T), TrimMark III, SOUTH,
PCC-EOT, Hi-target, Satel, LORA etc.
Supported language:
Simplified chinese, English, Turkish,
Polish, Korean, Indonesian, Spanish,
Telugu, Russian etc.

Illustrations, descriptions and technical specifications are not binding and may change.

Dual cameras enhance performance, laser breaks boundaries



A66MAX LASER DUAL-CAMERA RTK



Product Introduction

A66MAX is a laser dual-camera RTK product, supporting BDS/GPS/GLONASS/Galileo/QZSS system-wide full-frequency high-precision positioning, integrating visual laser, visual image and IMU module. The crosshair of assisted aiming system dynamically adjusts to always align with the ranging laser spot. Combined with front and bottom high-definition cameras and IMU inertial navigation, it delivers unparalleled measurement coverage!



Visible Laser Measurement

FOIF
It's professional since 1958

• Laser Ranging

Visible laser (CLASS 2 safety), measuring range 0.1-60m, 5-20Hz update rate for laser measurement and stakeout

• High-Precision Intersection

Utilizes multi-point intersection measurement technology to achieve up to 5cm ranging accuracy at 40m distance

• Laser Vision Display

Real-time display of measured distance, signal strength, and attitude accuracy; freely scalable image window with cross-hair aiming assistance

• Smart Camera Integration

Single operation simultaneously completes aiming, distance measurement, and image archiving, which enables clear, efficient data tracking and seamless workflow integration



Image marking with point information

reliability: (0.25)



● Hazardous Areas

For high-risk zones like high-voltage towers or utility poles, laser measurement allows operators to maintain a safe distance while accurately targeting measurement points.



● Cultural Heritage Sites

For those protected structures (e.g., pavilions, eaves), where physical contact is prohibited, laser measurement enables non-contact data collection, significantly expanding survey capabilities.



● Piers & Bridges

For inaccessible elevated areas (piers, bridges, or walls), laser technology combined with inertial navigation delivers precise point measurements.



● Multi-Point Intersection

For inaccessible elevated areas (piers, bridges, or walls), laser technology combined with inertial navigation delivers precise point measurements.



● Roadway Infrastructure

For unsafe measurement of central pillars or roadside barriers across traffic lanes, laser technology penetrates obstacles while keeping engineers out of danger zones.



● Waterway Surveys

When natural barriers (lakes, rivers) prevent access, laser measurement with image marking provides necessary help.



Dual-Camera AR Smart Reality Stakeout



Long-range guidance

close-range centering



The dual HD cameras can see the distant target point at a glance when stakeout, and dynamically guide the path of travel. When approaching the target point, the camera is intelligently switched to focus on the close-up. The overall efficiency of stakeout is increased by 39%.

Seamless IMU Tilt Measurement Technology



Auto initialization

60° tilt measurement

400Hz Ultra-High Update Rate

Status visual, accuracy consistent and reliable

No precise centering needed, instant point-and-measure

PGIV Controller

FOIF
It's professional since 1958

Android 11 system, 8-core 2.0G, 3GB internal memory + 32GB storage

Supports WLAN, Bluetooth and Type-C wired communication

5.0-inch BlankView high-definition touchscreen, enhanced clarity, brightness and power efficiency

Over 15 hours of operating time with 6400mAh high-capacity battery

GSM-certified global mobile communication, 4G world-wide with voice call support

IP67 dust/water proof, operating temperature from -30°C to 60°C

Single-frequency GPS/GLONASS/BDS support

High-strength magnesium alloy frame, 3D curved body design for comfortable grip

SurveyStar

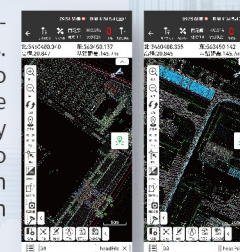
01 Visual laser ranging

It displays laser ranging signal strength and distance values in real time, and the crosshair of assisted aiming system dynamically adjusts to always align with the ranging laser spot. The image window can be zoomed in and out. It also supports multi-point intersection measurement, achieving 5cm accuracy at 40m distances. Besides, laser measurement can automatically support target image saving and marking.



02 Advanced CAD features

Real-Time data sync makes field measurements instantly exported to CAD drawings. Slope stakeout guides the operator to select any edge in CAD to realize grade slope measurements. Transparent overlay can superimpose CAD drawings onto maps. External references function can support opening any CAD drawings with external reference objects.



03 Dual-Camera AR Reality Stakeout

It has AR reality measurement and stakeout function, front camera provides long-range target guidance, and bottom camera provides close-range centering. Mountain photovoltaic stakeout can efficiently and precisely measure and mark photovoltaic panel position. Multiple earthwork calculation methods make volume measurement quite a breeze.



04 Multi-functional Data Service

Online map & satellite image with offline map download support. Direct import of road straight/curve tables, and it supports input methods including element-based, intersection-point, and coordinate-based. Cloud data sharing function makes file transfer to controller easily. Besides, it has QR code sharing for conversion parameters, coordinate systems, and configuration sets, etc.

