

WayPoint - R2L GNSS LASER RTK

WayPoint is a portable multi-functional GNSS. It has a built-in high-precision positioning module that supports tracking satellite signals from all systems and frequency bands. It is equipped with 4G full network access, Bluetooth, WIFI and built-in data transmission radio. The high-precision IMU integrates AR and Laser to achieve tilt measurement, Laser measurement and AR real-Time Stakeout, making the measurement work more convenient and efficient.



Linux Smart System

Linux+ARM Cortex-A7 intelligent system platform offers efficient computation and unlimited product functionality expansion.

Full GNSS Constellations

The receiver integrates a high-precision positioning module, utilizing 1408 channels to support a comprehensive range of signals including BDS (B1I/B2I/B3I/B1C/B2a/B2b), GPS (L1/L2/L5), GLONASS (L1/L2/L3), Galileo (E1/E5a/E5b/E6), QZSS (L1/L2/L5), SBAS and NavIC.

4G Full NetCom

The 4G NetCom solution based on the Linux platform fully supports 2/3/4G networks, offering better compatibility, stronger signals, and more stable connections.

Tilt Measurement

Built-in intelligent high-precision inertial navigation module for real-time tilt compensation, eliminating "fly points" in RTK measurement.

Laser Measurement

Equipped with a high-precision millimeter-level laser ranging module, combined with high-precision inertial navigation for accurate laser targeting in complex environments.

AR Real-Time Stakeout

Utilizes a professional ultra-wide-angle camera to provide high-definition real-time plotting functionality, making stakeout tasks more accurate and convenient.

Key Features

- Linux + ARM Cortex-A7 Smart System
- Support BDS/ GPS/ GLONASS/Galileo /QZSS/NavIC(IRNSS) and SBAS
- Centimeter-level positioning
- The accuracy of the tilt measurement is less than 2cm within a 60° range
- Complete data link, support 4G/BT/WIFI and radio, more flexible work
- Support AR real-time Stakeout
- Support Laser Measurement
- Equipped with a high-capacity lithium battery, long endurance
- Meets IP68 design requirements, safe and reliable



OPERATION		ACCURACY	
HARDWARE SYSTEM	ARM Cortex-A7	Standalone	Horizontal: 1.5m Vertical: 2.5m
OS	Linux	DGNSS	Horizontal: 0.4m Vertical: 0.8m
CHANNEL	1408	RTK	Horizontal: 8mm+1ppm
GNSS			Vertical: 15mm+1ppm
GPS	L1 C/A, L1C, L2P(Y), L2C, L5	Timing Precision	20ns
GLONASS	L1, L2, L3	Static Mode Precision	Horizontal: 2.5mm+1ppm
BDS	B1I, B2I, B3I, B1C, B2a, B2b		Vertical: 5mm+1ppm
GALILEO	E1, E5a, E5b, E6	Velocity Estimation	0.03m/s
QZSS	L1, L2, L5	Tilt Correction	<2cm@within 60°
SBAS	L1	AR Stakeout	Horizontal: 8mm+1ppm
NavIC(IRNSS)	L5		Vertical: 15mm+1ppm
Standard Output	NMEA-0183	Laser Measurement	<2.5cm@5m
Correction Protocol	RTCM3.X	SYSTEM	
Frequency	≤20Hz	Bluetooth	BR+EDR+BLE
Reacquisition Time	<1s	NFC	Support
Cold Start Time	<40s	WIFI	802.11 b/g/n/ac
RTK Initialization	<10s		LTE FDD: B1/2/3/4/5/7/8/12/ 13/18/19/20/25/26/28
Internal noise level	≤1mm	Network	LTE TDD: B38/39/40/41
Phase Center Offset	≤2.5mm		WCDMA: B1/2/4/5/6/8/19
BATTERY			GSM: B2/3/5/8
Battery	7.4V, 6500mAh		Integrated transceiver radio
Work time	More than 16 hours (Typical, Rover, GSM)		Frequency Range: 410~470MHz
Charge	USB PD 15V/2A 5V/3A	Radio	Power: 0.5W/1.5W
ENVIRONMENTAL			Air Baud Rate: 4800, 9600, 19200
Operating Temperature	-25°C~+60°C		Protocols: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT, SATEL, LORA
Storage Temperature	-40°C~+85°C	Storage	8GB
Shock Resistance	1.5m drop	Voice	Support
Protection Rating	IP68		Sensor size: 1/3.06 inch
PHYSICAL			Aperture: f/2.9
Materials	Magnesium alloy casing with ABS/PC cover;	Laser Camera	Resolution: 4224*3200
Dimensions	Φ134mm*86mm		Field of view: D44°H=35°V=26.5°
Weight	≤0.78Kg		Distortion: <1%
ACCESSORIES			Supports AR real scene stakeout
Receiver	1 PCS		Sensor size: 1/2.8 inch
USB power adapter	2 PCS	AR Camera	Aperture: f/2.5
USB Type-C To C	2 PCS		Resolution: 1920*1080
Radio Antenna	1 PCS		Field of view: 69.3°±3°
Controller	1 Set		Distortion: <0.38%

WAYROBO PTE. LTD.

18CROSSSTREET#14-01, CROSSSTREET EXCHANGE
SINGAPORE (048423)

Tel.: +65 8084 3927 Email: sales@wayrobo.com

RESELLER INFORMATION:

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