



Alpha Surveying

Alpha **4i** 2025

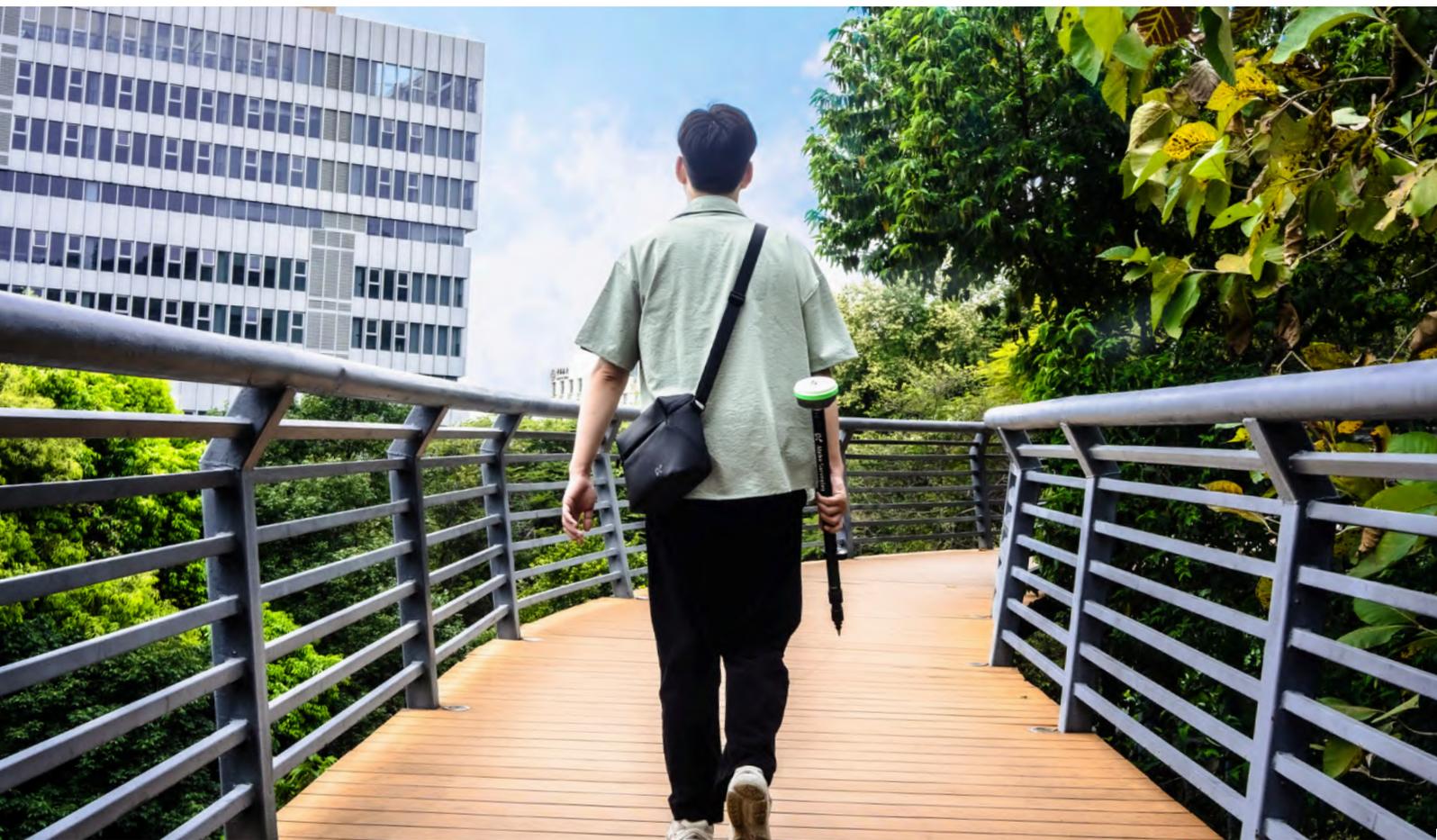
Alpha 4i Ultra RTK

98×53mm | 380g | Calibration-free IMU | 18h



Alpha 4i

With the latest system framework, and the latest generation positioning engine SoC, Alpha 4i goes beyond the design limitation, and it unloads 50% of the burden for global surveyors successfully. It comes with excellent performance and ultra small size.



Ideally made, lightly weight



380g

Comes with protective rubber band

Material of the Shell:

Made with nano material and wave-transparent top cover, Alpha4i is with aluminum alloy enforced housing. It's with 316 molybdenum steel threaded connector and 5/8 pin interface.

Calibration-free IMU



Covered Place



Jungle



Underground



Dangerous Point



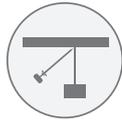
Buildings



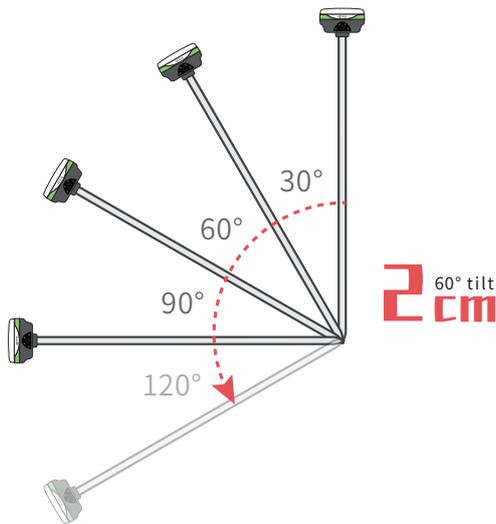
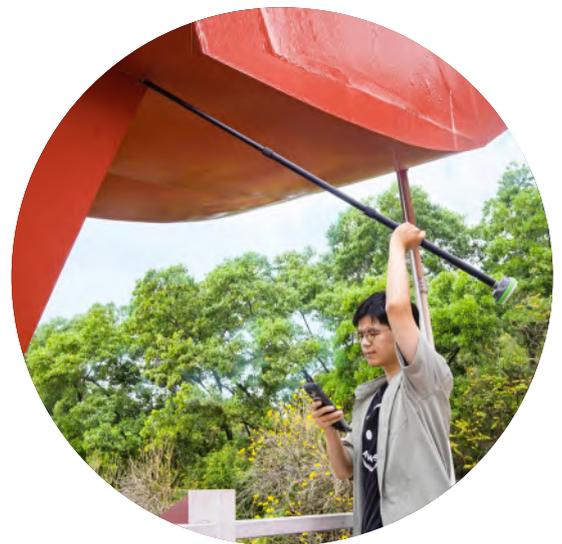
Hidden Point



Level Point



Aerial point



The high-precision inertial navigation is integrated with positioning and magnetometer data, and temperature compensation and other algorithms are added to achieve real-time output of accurate tilt measurement data under high tilt angles and high dynamics. No initialization is required, and you can enter the inertial navigation mode after walking a few steps; 60° tilt angle 2cm accuracy; support 90° horizontal point measurement; under good satellite conditions, it can support 120° aerial point measurement for a short time.

Greater Convenience



Hard Plastic Box
Industrial-grade small hard plastic box, 27*23*11cm.



Fast Charging
Power delivery, supports operation with external power banks.



IP67
IP67 dustproof and waterproof, comes with protective rubber gasket, drop-resistant up to 1.6 meters with the pole.



New Centering Rod
Upgrade to 1.6m portable rugged centering rod, telescoped to 64cm.



Controller Bracket
Capable of holding a mobile phone.



Colorful Protection Ring (Optional)
Various colorful Protection ring can be selected to make surveying a interesting jobmeters with the pole.



Dual-mode Bluetooth
5.2 BR/EDR+LE (Better compatibility, Faster transmission)



Controller Bracket
Capable of holding a mobile phone.



External Radio
Compatible with external radio. With Type-C interface to pin for external radio to access longer transmitting distance.

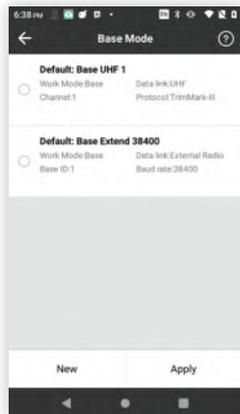
DiMap (surveying software)



DiMap has gone through deep iterations and gained a deep understanding of user survey habits. With built-in rich surveying modules and cloud integration, DiMap is professional, intelligent and easy-to-use.

Controller

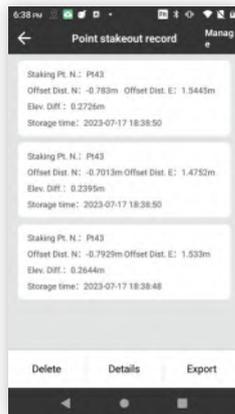
Professional Kit



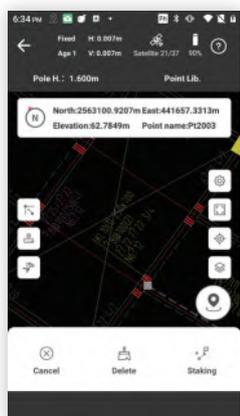
Base station and rover station configuration linkage



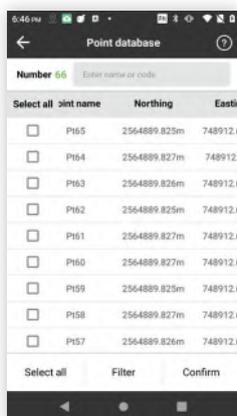
Large scale basemap import and full display for survey and stakeout



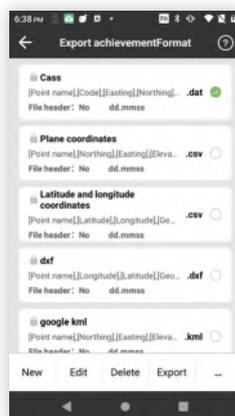
Separate management of stakeout records, one click export of record reports



CAD drawing recognition, high efficiency in editing and stakeout



Various data formats available to export, such as csv, dxf, kml, etc.



Alpha B55 Specifications

- OS ----- Android 11
- CPU ----- 8 cores 2.0Ghz
- RAM ----- 4G DDR4 +64G
- SIM Card Type ----- NanoSIM 4G
- Screen 5 inch, high-brightness, touchable
- Bluetooth ----- BT5.0/BLE
- Battery ----- 3.7V, 7700mAh
- Keyboard -12 buttons, backlight keyboard
- Weight ----- 335g

Android Phones

Install DiMap, bluetooth access operation



Professional Set



Alpha 4i	× 1
Radio antenna	× 1
Adapter	× 1
Data cable	× 1
Controller	× 1
Controller adapter	× 1
Controller data cable	× 1
Centering rob	× 1
Instructions	× 1
Carrying Case	× 1

Technical Specification

GNSS	Channels	1408
	Signal Tracking	GPS: L1C/A, L1C, L2C, L2P, L5
		BDS: B1I, B2I, B3I, B1C, B2a, B2b
		GLONASS: G1, G2, G3
		Galileo: E1, E5a, E5b, E6
		QZSS: L1C/A, L1C, L2C, L5
		SBAS: L1
	NAVIC: L5	
	*1 High Precision Static	H: $\pm(2.5+0.5 \times 10^{-6}D)$ mm
		V: $\pm(5+0.5 \times 10^{-6}D)$ mm
RTK	H: $\pm(8+1 \times 10^{-6}D)$ mm	
	V: $\pm(15+1 \times 10^{-6}D)$ mm	
Tilt Compensation	Accuracy	$\pm(8+0.3TILT)$ mm
	*2 Angle	0~90°
	Update Rate	100Hz
System Parameters	Operating System	RTOS
	Data Record	DAT
	Bluetooth	5.2 BR/EDR+LE(Dual-mode Bluetooth)
Radio	Power	2w
	Frequency	410-470MHz
	Global Communication Protocol	TRIMTALK 450S、TRIMMARKIII、SOUTH9600、SOUTH19200、SATEL9600、SATEL19200、TRANS PARENT
	Operation Mode	Transceiver
	Power	Voltage
Working Time		18h (Ntrip) 、 15h (Radio Receiving) 、 8h (Radio Transmitting)
Port Indicator	SMA	Connecting the radio antenna
	Type-C	For charging & Transmission
	Indicator Lights	satellite, datalink, bluetooth, battery
Physical	Dimension	98mm*53mm(Excluding 5/8 pin interface)
	Weight	380g
Environmental	Operating Temperature	-30°C ~ +70°C
	Storage Temperature	-40°C ~ +80°C
	Water/Dust Proof	IP67
	Shock	Normal temperature resistance of 1.6m drop (hard ground)
	Humidity	Up to 100%

*1 Will support by upgrading firmware soon

*2 The above technical parameters are for your reference. The company reserves the right to change the design and planning of the product based on the actual product.

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