Alpha Surveying

Alpha 5w

Long-range RTK

Built-in 5W compatible radio | Onboard 4G | Calibration-free



ISO
ISO9001
CE

Powerful 5-watt Internal Radio RTK

Alpha 5w full-galaxy RTK, built-in fully compatible 5W long-range radio, more compatible with the global market, whether as a rover or base station can easily finish the job.

Long-cover-range

Built-in 5W Rx&Tx radio, could cover range up to 8km

Long working time

Work over 40h with smart power supply in rover mode

Calibration-free

No need for initialization, just walk a few steps to enter the inertial navigation mode

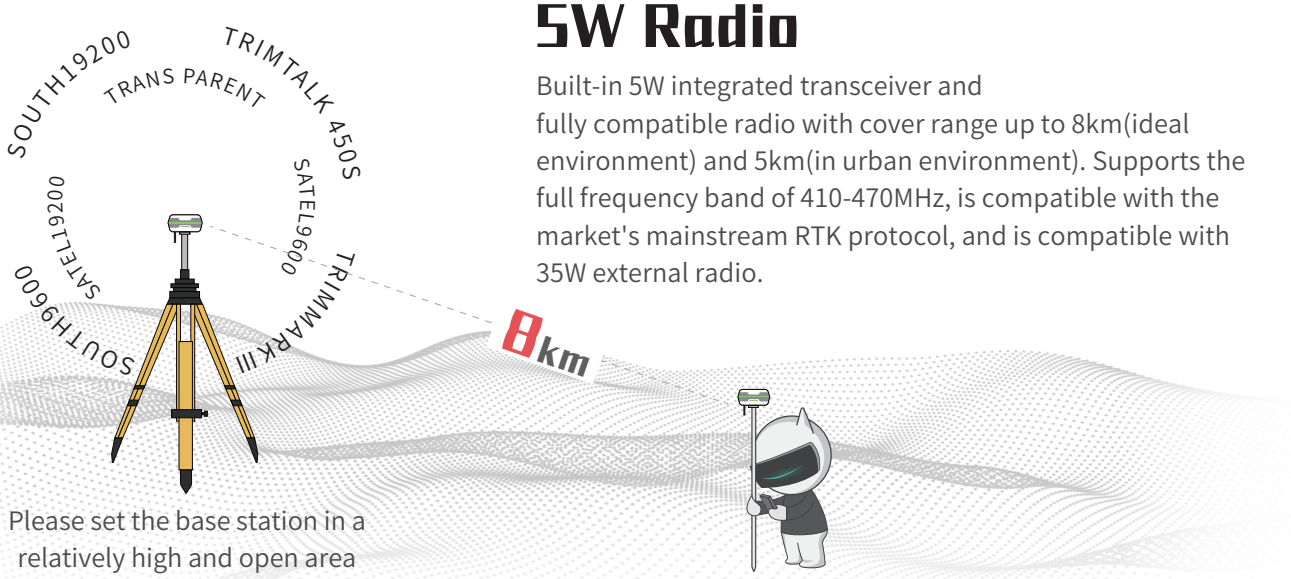
PPP

Convergence in ten minutes, achieving centimeter-level single-point positioning



5W Radio

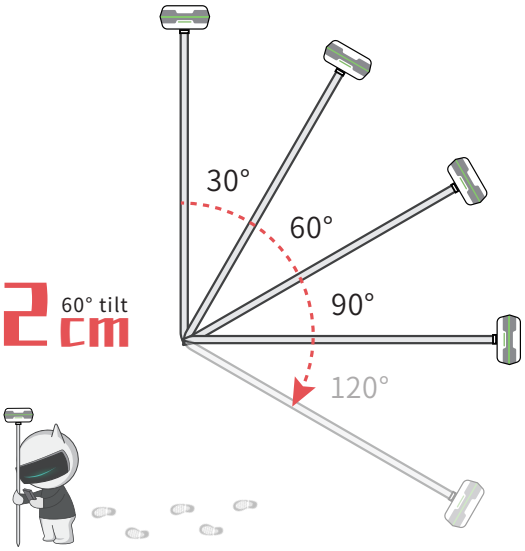
Built-in 5W integrated transceiver and fully compatible radio with cover range up to 8km(ideal environment) and 5km(in urban environment). Supports the full frequency band of 410-470MHz, is compatible with the market's mainstream RTK protocol, and is compatible with 35W external radio.



Please set the base station in a relatively high and open area

Calibration-free

The high-precision inertial navigation is integrated with positioning and magnetometer data, and algorithms such as temperature compensation 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.



Covered Place | Dense Jungle | Underground | Dangerous Point

Buildings | Hiding Point | Level Point | Aerial Point

Ultra-long battery life

Supports power bank power supply

Ntrip 40h	Ntrip Base 22h
Static 32h	Radio Receive 18h
Ntrip Rover 24h	Radio Transmitter 6.5h



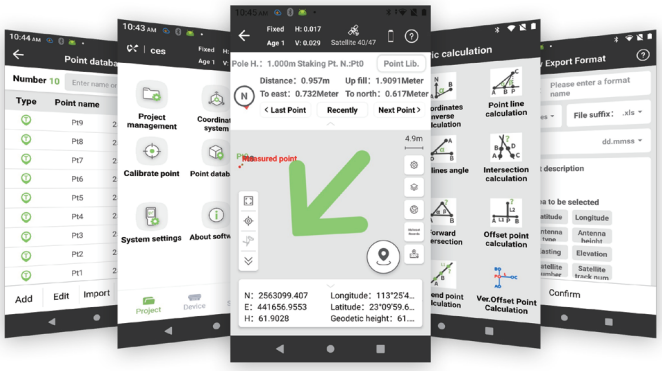
Controller

Alpha B55 Technical Indicators

Software platform	Android 11
CPU	8Core 2.0GHz
Storage	4G DDR4 +64G
Network system	NanoSIM 4G
Screen	5.5inch, resolution 720*1440
Bluetooth	BT5.0 BLE
Battery	3.7V,7700mAh
Type Nine keyboard	Backlit keyboard
Weight	335g

DiMap Field Software

Dimap has built-in rich survey modules, which is professional, easy to use, and intelligent, and is compatible with the mainstream RTK in the market. It has a large-scale measurement and stakeout interface, separate stakeout record management, one-click export of stakeout reports, recognition of mainstream CAD drawings, and large drawings can be opened in seconds. Drawing editing and stakeout are highly efficient, and the exported data can be directly filtered, making it clear at a glance.



Professional Set



Standard Rover Set

Gnss Receiver	×1
Charger For Receiver	×1
Power Cable	×1
UHF Antenna	×1
Carrying Case	×1
Controller	×1
Controller Bracket	×1
Charger For Controller	×1
Power Cable	×1
GNSS Pole+Bag	×1

Technical Specification

GNSS	Channels	1408
	Signal Tracking	GPS: L1C/A, L1C, L2C, L2P, L5
		BDS: B1I, B2I, B3I, B1C, B2a, B2b, ACEBOC
		GLONASS: G1, G2, G3
		Galileo: E1, E5a, E5b, ALTBOC, E6
		QZSS: L1C/A, L1C, L2C, L5
		SBAS: L1,L5
	High Precision Static	H: ±(2.5+0.5×10^{-6}D)mm
		V: ±(5+0.5×10^{-6}D)mm
	RTK	H: ±(8+1×10^{-6}D)mm
		V: ±(15+1×10^{-6}D)mm
Tilt Compensation	Accuracy	±(8+0.3TILT)mm
	Angle	0~120°
	Update Rate	100Hz
System Parameters	System	RTOS
	ROM	8G
	Data Record	DAT
	Bluetooth	5.2 BR/EDR+LE(Dual-mode Bluetooth)
	Network Communication	GSM: B2/B3/B5/B8
		UMTS: B1/B2/B4/B5/B6/B8/B19
		LTE-TDD: B38/B39/B40/B41
		LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13 /B18/B19/B20/B25/B26/B28
Radio	Power	5W
	Frequency	410-470MHz
	Mode	5W Rx&Tx
Power	Voltage	5-12V QC2.0
	Working Time	25h(Ntrip)
Port/Indicator	TNC	For connecting built-in radio antenna
	Type-C	For charging & Transmission
	Indicator Lights	satellite, datalink, bluetooth, battery
Physical	Dimension	138mm*68mm
	Weight	800g
Environmental	Operating Temperature	-30℃ ～ +70℃
	Storage Temperature	-40℃ ～ +80℃
	Water/Dust Proof	IP67
	Shock	Resistant to 2 meters of pole fall at room temperature (hard floor), 1.2 meters of free fall resistance
	Humidity	100% condensation resistant

* 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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