



Alpha Surveying

AlphaTx

Android 1" Total Station

1" Accuracy + 1000m | 5.5inch Touch screen + Buttons | Professional software



Alpha Tx Android Total Station

Alpha Tx 1" High-precision Total Station, boasts high quality and high performance with its outstanding design, advanced encoding technology and stable alloy axis. The Tx Android series total station has been intelligently improved in software and hardware, to make the performance of Alpha total station even better.

Lithium-ion Battery

Standard package with two batteries Typical operation lasts 8 hours.

Touch Measurement

Touch trigger key helps mitigate the impact of jitter on the measurement.

Handy Brake Wrench

Comfortable design, can be locked and unlocked with a gentle movement.

Coaxial Laser Plummet

Coaxial laser plummet makes it more convenient to track the targets.

Advanced Optical System

Europe optical technology helps effectively suppress chromatic aberration and makes clearer observation.

BT5.0/BLE

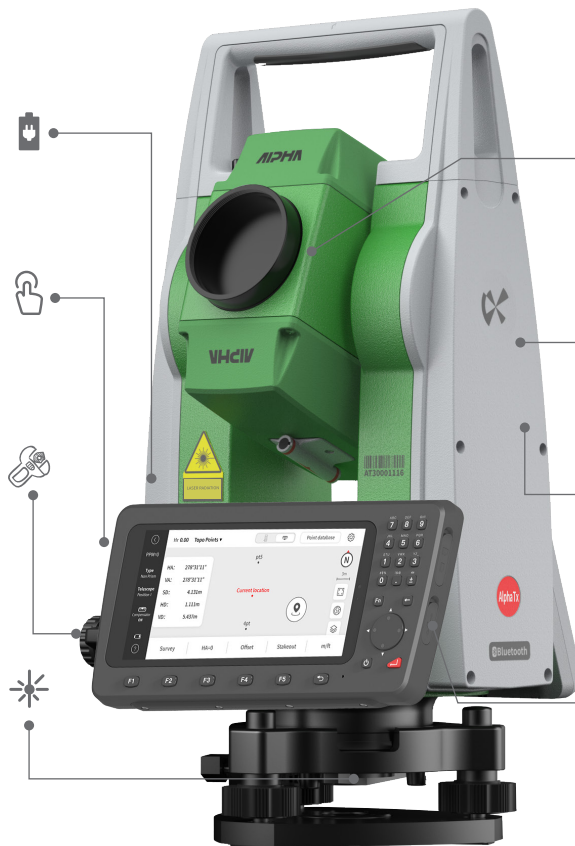
Low energy enables more ways of measurement.

High performance processor

Adopt advanced architecture processor to reduce power consumption and improve the overall stability of the total station.

Type-C

Supports data upload, download and firmware upgrade through Type-C interface.



Precise Distance Measuring Technology

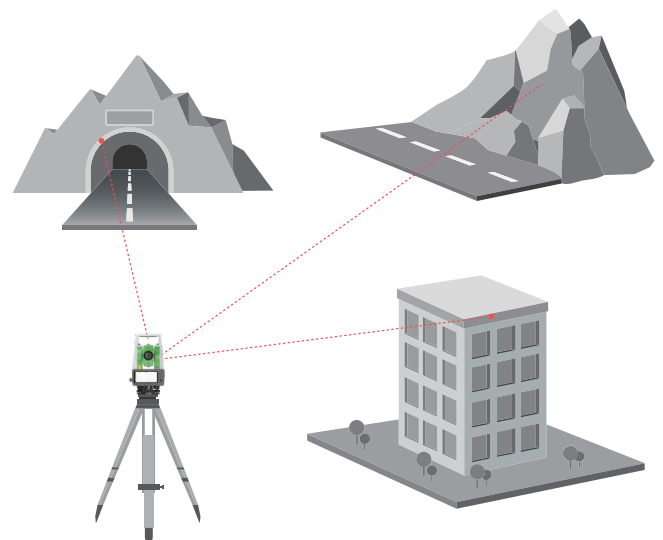
Alpha Tx can achieve fast and accurate distance measurement through built-in eight adaptive high-frequency measuring rulers and advanced phase laser ranging algorithms, meeting the accuracy requirements of various advanced engineering measurements.

1,000m

Non-Prism Distance Measurement

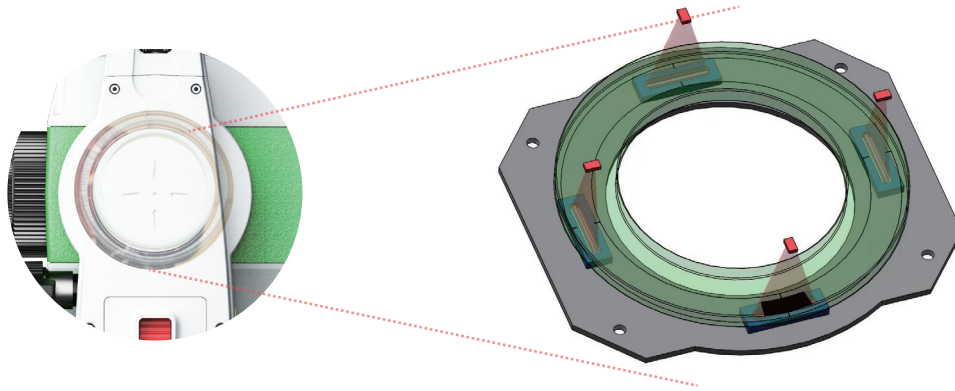
5,000m

Single Prism Distance Measurement



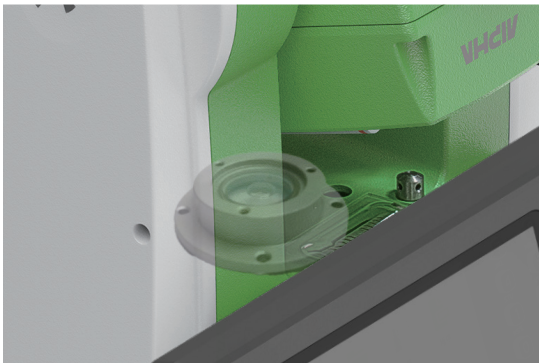
Precise Angle Measuring Technology

The self-developed four-quadrant precision angle sensor design, error compensation algorithm, combined with photoelectric decoding, top-notch precision photolithographic absolute coding disk, brings stable and reliable accuracy of 1".



Coaxial comprehensive compensation

The compensator is located directly above the vertical axis. It can quickly and accurately compensate during rotation. At the same time, CCD is used for precise calibration. The compensation range is up to 4', and the operation efficiency is extremely high.



Premium Grade Dense Bead Shaft System

Using customized ultra-high-precision grinder precision processing technology, the carefully selected top-grade G3 steel balls are processed through dozens of processes to create a special-grade dense ball shaft system that can meet the stringent requirements of 1"-level instruments.

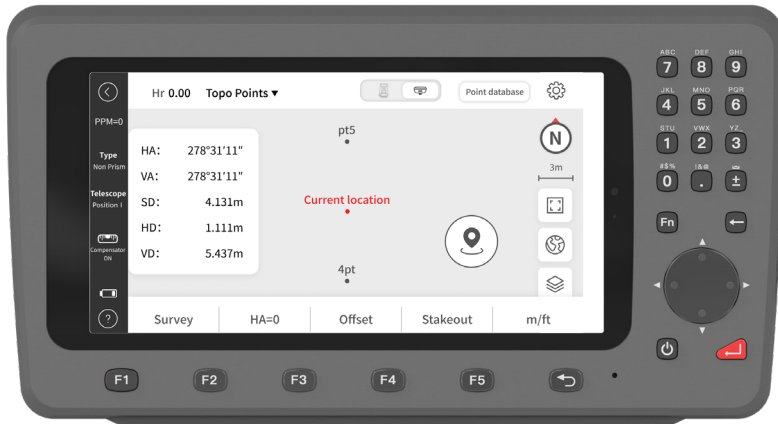


Excellent protection

Excellent IP65 protection performance combined with precision shafting, electronic compensation technology and high redundancy. The angle measurement decoding algorithm allows the total station to be used in various extreme engineering environments, making measurements stable and reliable.



Powerful System



Android system

Android 11.0, 8Core 2GHz CPU, 4G RAM+64G ROM.



Semi-transparent and semi-reflective screen

5.5-inch translucent and semi-reflective touch screen, clearly visible under sunlight.



Comfort buttons

Sleek and comfortable backlit keys support all-day work.

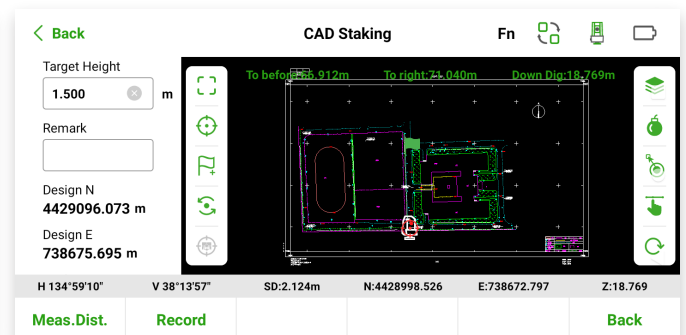
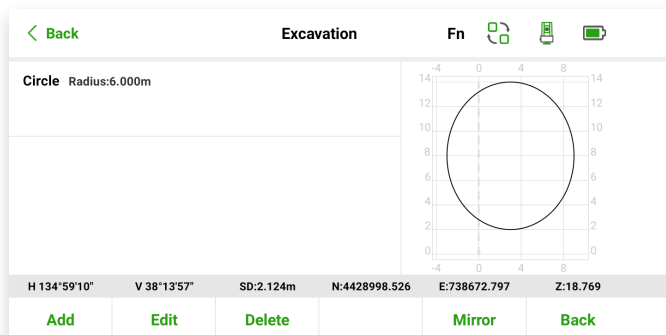


Temperature and pressure sensing

Built-in temperature and pressure sensor, automatically corrects parameters during high-precision measurement.

According to the actual needs of front-line surveyors, the Alpha Android total station panel is designed with a 5.5-inch touch screen + physical buttons, which takes advantage of the operating advantages of the Android system and is more in line with measurement habits. Outstanding hardware and professional software make measurements easy.

Support Classic Functions



Versatile Functions (take road stakeout for example)



Engineering Management



Job Management



Line Management



Record



Point Database



Stakeout Database



Line Database



Area Database

Accuracy that high-class projects can trust



Road

Alpha Ta has excellent angle measurement accuracy, distance measurement accuracy and compensator accuracy, and is suitable for highways and high-precision rail transit.



Unique coding design and highly fault-tolerant photoelectric decoding technology allow the code disc to accurately measure angles even when 70% of them are blocked, achieving accurate readings without fear of moisture and dust.



Bridge

Alpha Android total station has excellent distance measuring performance. It has fast short-distance measurement speed and high long-distance accuracy. It is suitable for bridge installation and construction.



Tunnel

Unique angle measurement technology, no fear of dust and condensation, with laser indicator and keyboard backlight, Alpha Ta is fully qualified for tunnel measurement.

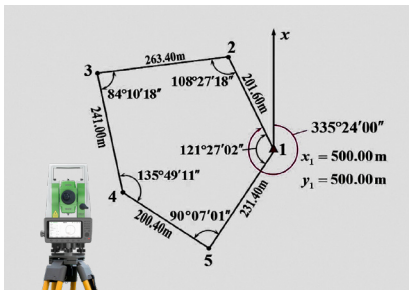


Online power supply and debug.



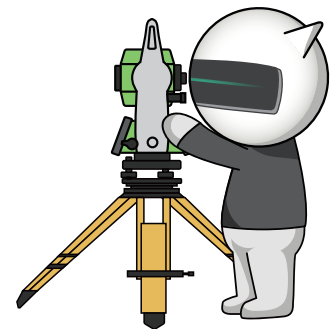
Foundation pit

Alpha Android total station has an angle measurement accuracy of 1" and a distance measurement accuracy of up to 1+1, fully complying with foundation pit monitoring requests.



Traverse survey

Alpha Android total station has stable angle measurement accuracy and distance measurement accuracy, strong consistency, and is suitable for traverse survey.



Professional Set



Total station	X1
Battery	X2
Charger	X1
Tool bag	X1
Manual	X1
Warranty Card	X1
Certificate	X1
USB flash drive	X1
RP60 reflector	X1
RP30 reflector	X1
Objective cap	X1
Data Cable	X1

Alpha Tc Super Station



Alpha Android total station can combine with Alpha RTK to form a Super Station. With upgraded software, it can achieve one-stop measurements, offering convenience for forestry, tunneling, education, national defense, etc.

Technical Specification

	Image	Right-reading		
Telescope	Magnification	30x		
	Field Of View	1°30'		
	Minimum Focus	1.7m		
	Resolution	2.8"		
	Accuracy	1"		
Angle Measurement	Reading System	Absolute Encoders		
	Minimum Reading	1"		
Distance Measurement	Measuring	Non-Prism 1000m		
		Reflector 2000m		
		Single Prism 5000m		
	Single Prism	$\pm(1\text{mm}+1\times 10^{-6}\times D)$		
	Accuracy	Non-Prism	$\pm(3\text{mm}+2\times 10^{-6}\times D)$	
		Reflector	$\pm(3\text{mm}+2\times 10^{-6}\times D)$	
	Time	Fine: 0.7s Rapid: 0.5s Tracking: 0.3s		
Minimum Display	Fine / Tracking: 0.1mm			
Compensator	Compensator Type	Dual axis		
	Compensator Range	$\pm 4'$		
	Compensator Resolution	1"		
Laser Plummet	Accuracy	1.5mm@1.5m		
	Wavelength	635nm		
	Safety	Class2		
	Output Power	0.7-1.0nw		
Level Vial Sensitivity	Tubular Level	30"/2mm		
	Circular Level	8'/2mm		
Panel	Screen	5.5" semi transparent reflective touch screen		
	Key	x26		
	Backlight	Support		
Power	Battery	Type	3400mAh*2 Li-ion battery	
		Low voltage alert	Shut down in 10 mins	
	Working Time	Angle Measuring	single screen 20h	double screen 12h
		Distance Measuring + Angle Measuring	single screen 12h	double screen 8h
Environment	Operating Temperature	-20°C ~ +50°C		
	Storage Temperature	-30°C ~ +55°C		
	Water/Dust Proof	IP65		

*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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