



Alpha Ta

Android 2" Total Station

2" Accuracy +1000m | 5.5 Inches Touch Screen | Professional Software



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Originated from European optical technology, with special dense bead shaft system, center compensator, new generation measuring ruler and the static absolute encoding disc, Alpha Ta Android Total Station comes with higher quality, accurate and stable performance.



Precise Distance Measuring Technology

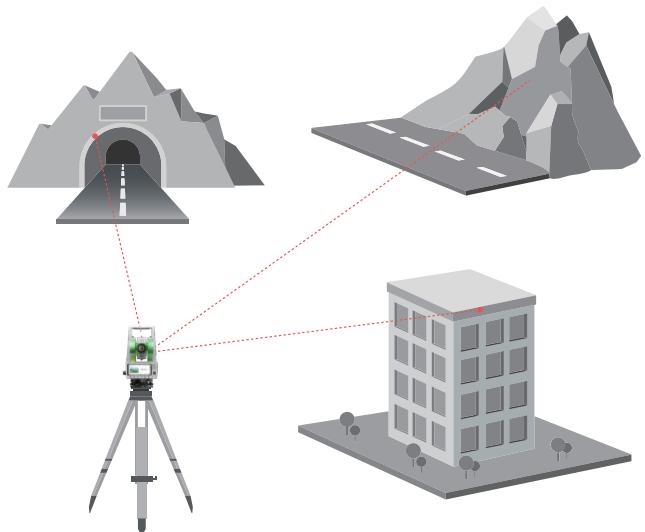
Alpha Ta can achieve fast and accurate distance measurement through built-in eight adaptive high-frequency measuring rulers and advanced phase laser ranging algorithms, meeting the accuracy requirements of various advanced engineering measurements.

1,000 m

Non-Prism Distance Measurement

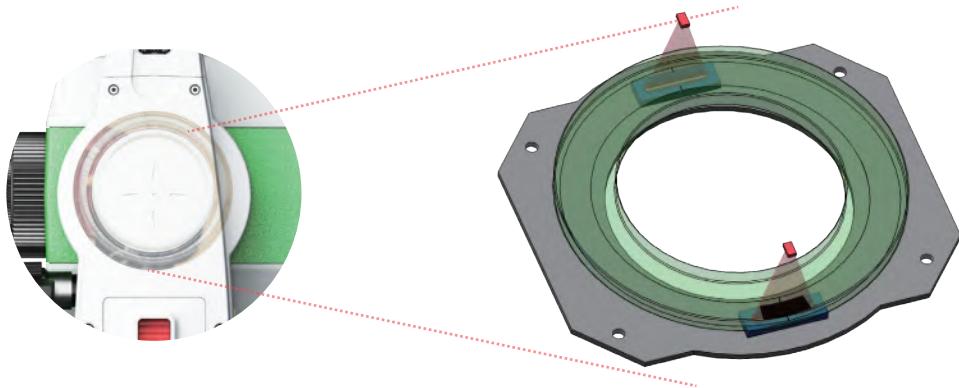
4,000 m

Single Prism Distance Measurement



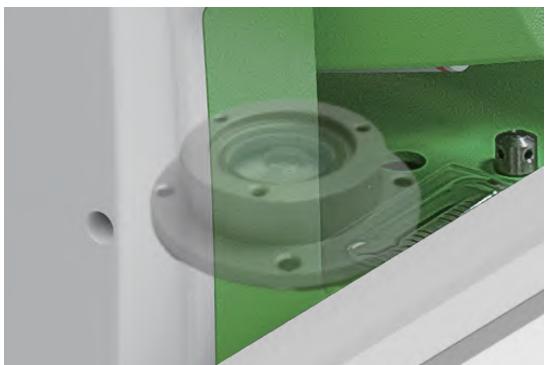
Precise Angle Measuring Technology

Self-developed high-precision angle measurement system technology includes coding, high-precision code disc, linear array CCD photoelectric measurement, decoding, redundancy, calibration, multi-sensor combination algorithm and other sub-technologies, providing on-site jobs with high stability and fault tolerance.



Coaxial comprehensive compensation

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.



Special 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.



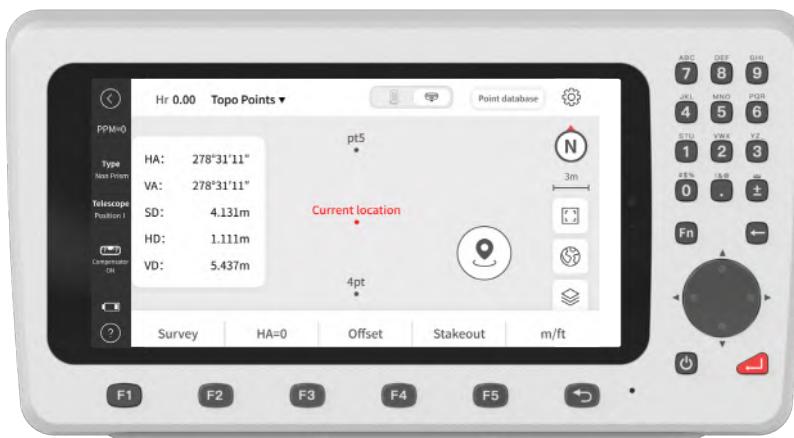
Strong Protection

Excellent protective performance, powerful precision shafting electronic compensation technology and high redundancy

The angle measurement decoding algorithm allow the total station to be used in various extreme engineering environments, making measurements stable and reliable.



Powerful System



Based on the actual needs of front-line surveyors, Alpha Ta Android total station panel is designed with a 5.5" touch screen + temperature and pressure sensing physical buttons, which takes advantage of Android system and is more in line with measurement habits. Outstanding hardware and professional software make measurements easier.



Android System

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



Transreflective Screen

5.5" transreflective screen touch screen, clearly visible under sunlight.



Physical Buttons

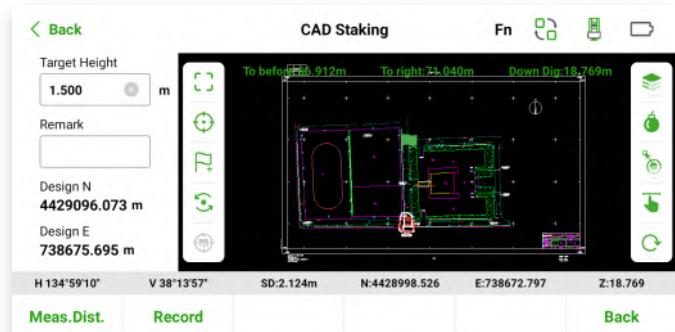
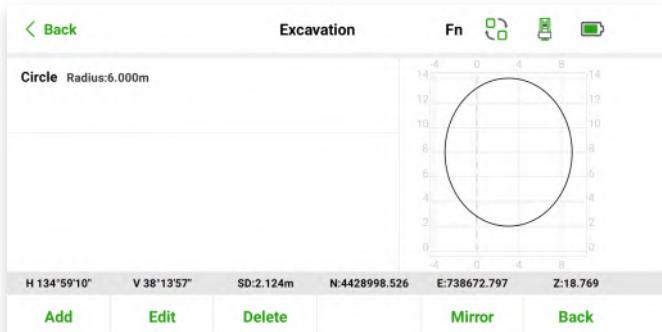
Sleek and comfortable backlit keys, supports all-weather operations.



Temperature and Atmospheric Pressure Sensing

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

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 60% 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.

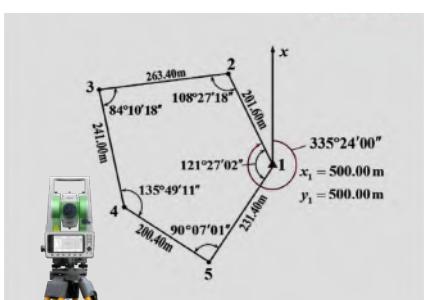


Online power supply and debug.



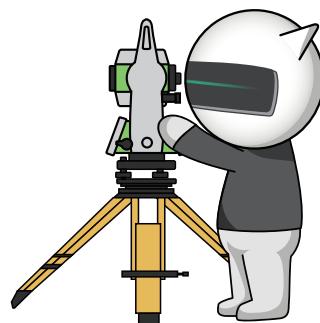
Tunnel

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



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 | ×1 |
| Battery | ×2 |
| Charger | ×1 |
| Tool bag | ×1 |
| Manual | ×1 |
| Warranty Card | ×1 |
| Certificate | ×1 |
| USB flash drive | ×1 |
| RP60 reflector | ×1 |
| RP30 reflector | ×1 |
| Objective cap | ×1 |
| Data Cable | ×1 |

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

| | | |
|-------------------------------|------------------------|--|
| Telescope | Image | Right-reading |
| | Magnification | 30x |
| | Field Of View | 1°30' |
| | Minimum Focus | 1.5m |
| Angle Measurement | Resolution | 2.8" |
| | Accuracy | 2" |
| | Reading System | Absolute Encoders |
| | Minimum Reading | 1" |
| Distance Measurement | Non-Prism | 1000m |
| | Measuring | Reflector |
| | Single Prism | 4000m |
| | Single Prism | $\pm(1\text{mm}+1\times10^{-6}\times D)$ |
| Compensator | Non-Prism | $\pm(3\text{mm}+2\times10^{-6}\times D)$ |
| | Accuracy | Reflector |
| | Time | Fine: 0.7s Rapid: 0.5s Tracking: 0.3s |
| | Minimum Display | Fine / Tracking: 0.1mm |
| Laser Plummet | Compensator Type | Dual axis |
| | Compensator Range | ±4' |
| | Compensator Resolution | 1" |
| | Accuracy | 1.5mm@1.5m |
| Level Vial Sensitivity | Wavelength | 635nm |
| | Safety | Class2 |
| | Output Power | 0.7-1.0nw |
| | Tubular Level | 30"/2mm |
| Panel | Circular Level | 8'/2mm |
| | Screen | 5.5" transreflective touch screen |
| | Key | x26 |
| | Backlight | Support |
| Power | Battery | Type: 3400mAh*2 Li-ion battery |
| | Working Time | Angle Measuring single screen 20h double screen 12h Distance Measuring + Angle Measuring single screen 12h double screen 8h |
| | Operating Temperature | -20°C ~ +50°C |
| | Storage Temperature | -30°C ~ +55°C |
| Environment | 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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