STSA9 ANDROID TOTAL STATION

DISTANCE MEASUREMENT

Range	- Non-prism: 1500 m - Single prism: 5000 m
Accuracy (reflector)	2 mm+2 ppm
Accuracy (reflectorless)	- 0-300m: 3 mm+2 ppm - 300-600m: 5 mm+2 ppm - >600m: 10 mm+2 ppm
Measurement time	- Continuous: < 0.7s - Tracking: < 0.3s - Fine: < 2s

ANGLE MEASUREMENT

Detection method	Absolute Encoding
Disk diameter	79mm
Minimum reading	1"
Accuracy	2"

COMPENSATION

Type	Dual-axis liquid-electric sensor
Compensator range	±6'
Correction unit	±3"
Atmospheric correction	Temperature-pressure sensor auto correction
Prism constant	Auto correction
Trigger	Under battery house

VIAL

Circular level sensitivity	8'/2 mm
Plate level sensitivity	30"/2 mm
Plummet	Laser plummet

TELESCOPE

Magnification	30x
Aperture	- Effective: 45mm - DTM: 47mm
Field of view	1° 30´
Minimum focus	1.5 m
Resolution	3"
Image	Erect
Tube length	150 mm

DISPLAY

Display	LCD graphic touch screen
Size	5"
Resolution	1280*720
Graphic Display	Max: 99999999.999 m Min:0.1 mm

SYSTEM

Operating system	Android 9.0
CPU	Qualcomm MSM8953
Storage	3GB RAM + 32GB ROM

COMMUNICATION

Bluetooth	v 4.2LE
Wi-Fi	802. 11b/g (2402 MHz~2482 MHz)
4G	TDD-LTE B34/38/40/41 FDD-LTE B1/3/5/8 GSM 900/1800MHz CDMA BC0 WCDMA B1/8

ELECTRICAL

Battery voltage	DC 7.4V
Battery capacity	5000mAh rechargeable Lithium battery
Operating time	8 hours

PHYSICAL

Size	206mm × 200mm × 353mm
Weight	6.0 kg

ENVIRONMENTAL

Working temperature	-20 °C to + 50 °C
Storage temperature	-40 °C to + 50 °C
Waterproof & dustproof	IP55

All specifications are subject to change without notice.

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STSA9

ANDROID TOTAL STATION

Android 9 OS & 5” Touch Screen
Smart Precision, Boundless Efficiency



Powered by the Android 9.0 operating system and high-precision optical components, the STSA9 is built to enhance flexibility, efficiency, and intelligence in the daily workflows of surveyors, engineers, and construction professionals.

PRECISE MEASUREMENT
Equipped with a high-performance EDM, the STSA9 delivers high-accuracy angle and distance measurement.

ABUNDANT TRANSMISSION
With USB host for file access, Micro-USB for debugging, 4G/WiFi/Bluetooth for connectivity.

32GB STORAGE
With 3GB RAM + 32GB ROM, you can save more task data freely and operate the system smoothly.



STRONG CPU
Powered by a Qualcomm octa-core CPU and Android 9 OS for fast data processing.

FINE AIMING CONTROL
Dual-axis tangent screws and clamps allow smooth and accurate adjustment of horizontal and vertical angles.

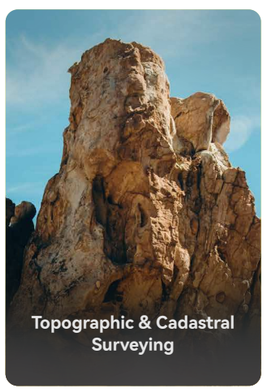
LASER PLUMMET
The built-in laser plummet projects a visible red dot for easy centering over control points.

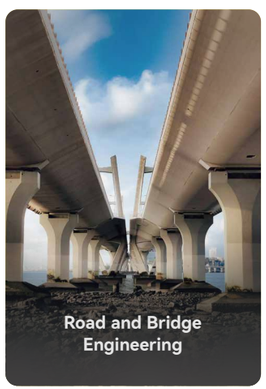
Android 9
Operating System

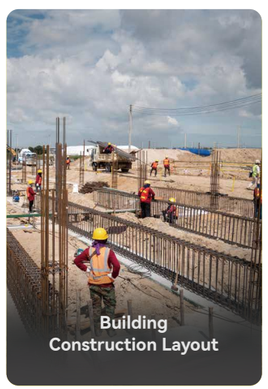
1.5KM | 5KM
Non-prism | Single Prism

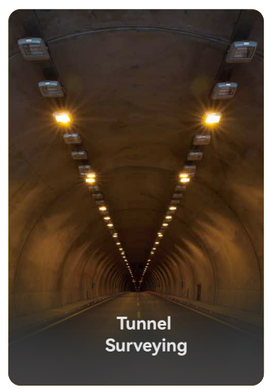
2″
Angle Accuracy

APPLICATIONS









In addition to its powerful system and advanced optical performance, the STSA9 features a user-friendly design, versatile connectivity, flexible data transmission, and a rugged build—making it well-suited for long-duration fieldwork across diverse applications.

IP55 PROTECTION
The IP55 housing ensures protection against tough weather and jobsite conditions.

DUAL-SIDE TOUCH SCREEN
Dual-side 5-inch HD touchscreens for smooth onboard operations and clear graphic display.processing.

MANUAL MEASURE BUTTON
A dedicated physical measurement button ensures efficient point collection.



LARGE BATTERY
5000mAh battery enables 8 hrs of use, with a backup for full-day work.

ENVIRONMENTAL SENSORS
Built-in temperature and pressure sensors enable real-time atmospheric correction for improved distance accuracy.

LEVEL BUBBLE
The STSA9 includes both physical leveling bubbles and an on-screen digital level, enabling fast and accurate setup.

FIELD SURVEYING SOFTWARE OPTIONS



STANDARD
DEFAULT ONBOARD SURVEYING SOFTWARE

The standard onboard Android software covers basic survey workflows like job creation, station setup, point survey & stakeout, and COGO.

OPTIONAL
SINGULARPAD FIELD SURVEYING SOFTWARE

A full-featured surveying software that supports advanced full workflows and comprehensive functions such as TPS survey, CAD stakeout, road stakeout, and more.

