SPECIFICATIONS

Angle measurement	
Angle Measuring Principle	Rotary absolute encoder
Accuracy	2″
Distance measurement	
Prism	1.5m to 5000m
Reflective Sheet	1.5m to 500m
Physical	
Dimension	241*212*420mm
Peso	8000g
Keyboard	Full keyboard (with backlighting, key beeps)
Display	5.5-inch (with touch function), braid rate: 720 * 1440, brightness ≥ 500cd/m²
Telescope	
Magnification	30X
Field View	1°30′
Minimum Focus	1.5m
Tilt angle compensation	
System	Dual-axis
Range of Compensation	≥6′
Accuracy of Compensation	≤1″
Distance accuracy	
Prism	2mm+2ppm
Reflective Sheet	3mm+2ppm
Rotation	
Max Revolving Speed	≥180°/sec
Max Change Direction Time	3.5 sec
Searching Time	Precise rotation to point to any target position time≤3.5s
Guide light	
Visible Distance	5 to 150m
Communication	
Interface	Type-C, TF Card
Network	LTE, TD-SCDMA, CDMA200, GSM
Bluetooth	BT2.1+EDR/3.0/4.2 LE
WIFI	2.4G HZ Dual-Band, support AP mode and wifi
Power supply	
Power Consumption	70.56Wh (Measurement mode)
Duration	≥6h (Measurement mode)
Power Source	Rechargeable battery
System configuration	
Operating System	Android 9.0
Processor	Qualcomm CPU@ octa-core 1.8 GHz
Memory	RAM：3GB ROM: 32GB
Environmental	
Operation Temperature	-30°C—+50°C
Storage Temperature	-40°C—+70°C
Dust&Water Rating	IP65

Reminders:
*1. Good Conditions: good visibility of about 20km, the overcast sky without scintillation.
*2. Under Kodak white board(90%), measuring distance may vary according to targets and the conditions.
*3. Measuring time may vary with measuring distance and conditions. For the initial measurement, it may take a longer time.
*4. Battery life performs best at 25℃. It might be shorter in low temperature or if the battery is old.

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SATLAB GEOSOLUTIONS

ART1

Robotic Total Station

ART1 Robotic Total Station

ART1 Robotic Total Station revolutionizes engineering measurement with its innovative, user-focused design. It smoothly switches between robotic and conventional modes. In robotic mode, its pole control system enables single-operator workflows effortlessly. For traditional needs, manual operation remains intuitive.

Its advanced full-automatic tracking capabilities guarantee precision while drastically reducing the likelihood of human error. Designed for engineering measurement and monitoring, this versatile system excels in diverse settings, from construction sites to machinery operations, providing reliable high-accuracy solutions.

- 5.5-Inch Touch Screen
- Wireless Connection
- 8MP Camera
- Qualcomm CPU
- 3GB RAM, 32GB ROM
- STR
- 360 ° Search
- Automatic Altimetry

Features

STR and Tracking Measurement

Featuring STR (Super Target Recognition) with 360° AI-enhanced prism detection, the ART1 locates targets in seconds—even in complex environments. Its 10Hz high-frequency measurement and 0.9-1.4 m/s stable tracking (up to 600m range) ensure uninterrupted data flow, significantly boosting work efficiency.

Visual Centering and Height Measurement

On-screen visual centering and height measurement with algorithm-based center point recognition,eliminating the need for precise manual centering.

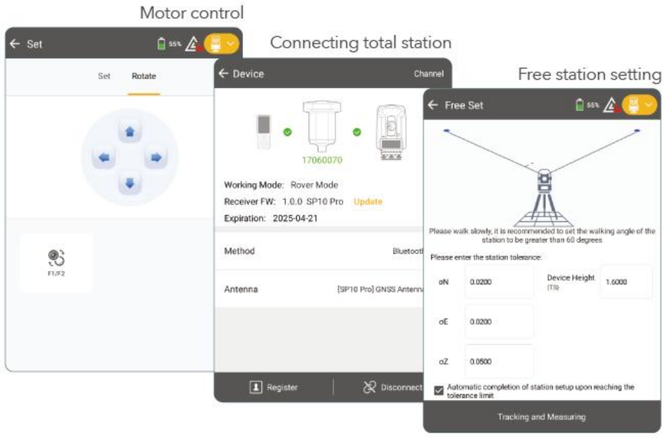
Free Station Setup without Control Point

The integrated GNSS communication box enables autonomous station setup in uncharted areas—perfect for remote sites or emergency projects. Expand your service scope while slashing setup time by 70%.

Software Control

Satsurv — Powerful Field Surveying Software

Satsurv is a customized and easy-to-use Android software for field surveying tasks.



ST-Surv — Android Total Station Software

Effortlessly configures a range of scenarios with swift convenience and supports online updates.

Applications

Single-person Surveying

Bridge

Dam Measurement

Machine Control

Pole Control System

Communication Box (optional)

PHYSICAL	
Dimension	102*95*128mm
Weight	406g
SYSTEM CONFIGURATION	
Operating System	LINUX
Processor	Dual-core 1.2 GHz
Memory	RAM： 128MB ROM: 8GB
COMMUNICATION	
Interface	Type-C
Bluetooth	2.4G
WIFI	2.4G
Radio	900MHz~920MHz; 26dB
ENVIRONMENTAL	
Operation Temperature	-25°C—+65°C
Storage Temperature	-40°C—+65°C
ACCURACY	
RTK（optional）	H:8mm+1ppm RMS V:15mm+1ppm RMS
RTK Tilt Survey	±3cm(≤30°)
Optical Tilt Survey	3mm+0.6mm/°（2σ，0°~60°）
POWER SUPPLY	
Power Consumption	≤35.28Wh(Measurement mode)
Duration	≥10h (Measurement mode)

(UHF+GNSS+IMU)

(UHF+IMU)

SL87Pro High-precision Tablet

Android 13

Multi-Constellation Tracking

8200 mAh Battery

Professional RTK Engine

Touchable Screen

IP67

GIS Module

NFC