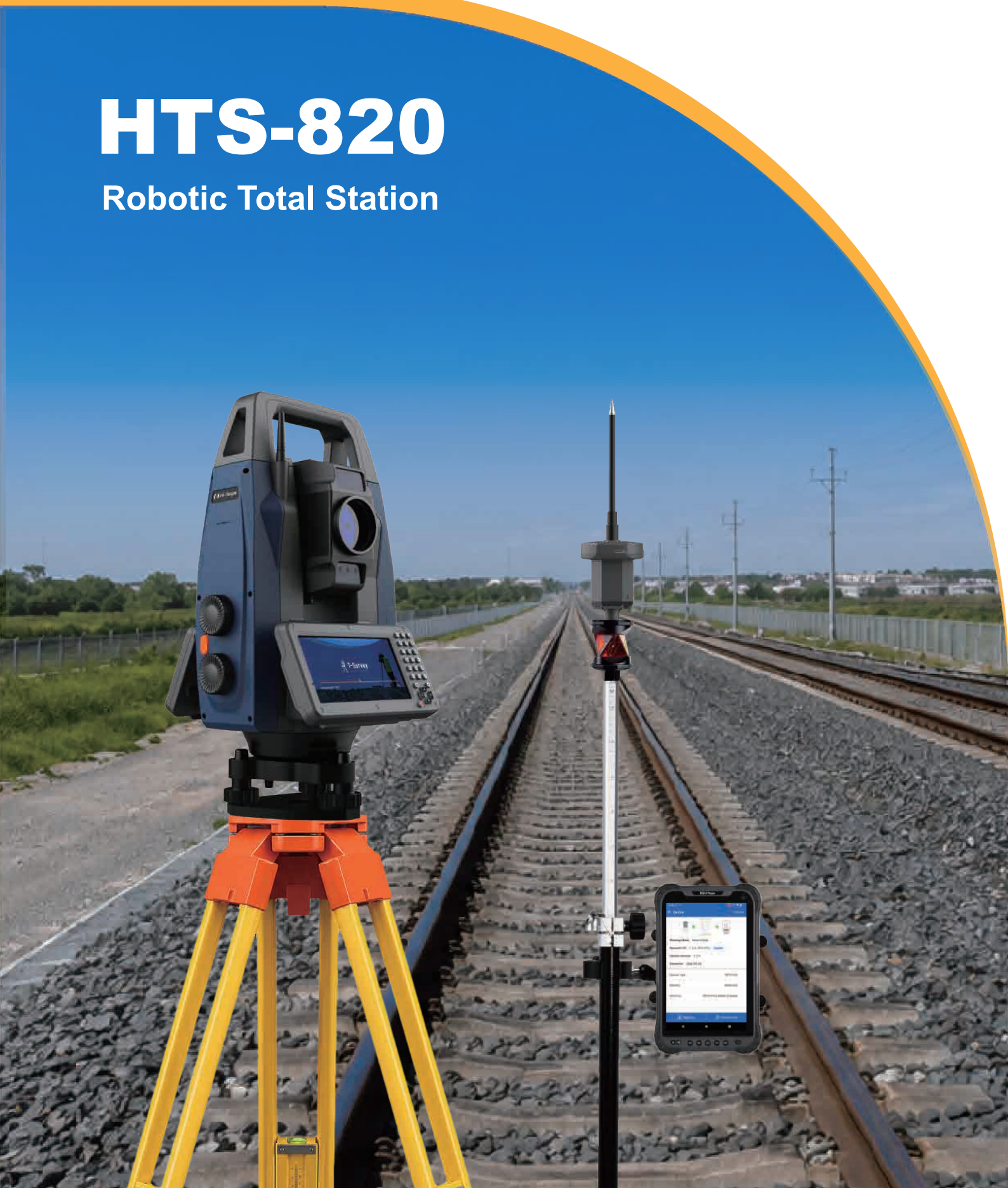
Hi-Target

HTS-820

Robotic Total Station



HTS-820

Robotic Total Station

HTS-820 delivers true one-person surveying – from rough terrain to complex construction sites. Its AI prism tracker locks on target reliably, and reacquires targets after obstacles faster, like military tracking. Enhanced by unique Imaging technology and featuring Intelligent Imaging Station settings, it significantly cuts field hours by 50%. This is the tool that lets you focus on engineering, not equipment.

Wireless Connection

2MP Camera

IP65

IP65

5.5-inch Touch Screen

1.8 Ghz

Qualcomm CPU

3GB RAM, 32GB ROM

Power Motor for Surveying & Staking Out

180°/s
Maximum rotation speed

≤3.5s
Reversing time

≤2″
Control positioning accuracy

Functions

Hybrid Tracking

No More Losing Targets

Our hybrid tracking system intelligently combines multiple data sources to maintain precision, even in challenging conditions. If the pole moves behind an obstacle and reappears, the system seamlessly reacquires the target—ensuring uninterrupted workflow and reliable results.

Intelligent Imaging Station Setup

Level Up Your Efficiency

Based on intelligent imaging technology, engineers don't need to center and measure instrument height, HTS-820 can automatically calculate, the accuracy can reach 1mm, greatly saving work time.

Smart Prism Search

Precision Meets Efficiency

HTS-820 supports multiple-way search prism for different situation. 360 ° super search is suitable for longer distances of 20~300m. It uses a planar laser to scan in a fan shape to find prisms faster. AI search is suitable for ≤20 meters. It integrates camera parameters and uses AI intelligent algorithms to make search easier.

Pole Control System

Full Control Total Station at ≥600 meters.

Control-Free Setup
No need for control points by incorporating GNSS

Auto-Switch Positioning
Seamlessly transition between Optical/GNSS data for uninterrupted accuracy.

Tilt-Smart Surveying
Optical tilt compensation ensures reliability on uneven terrain.

Communication Box(optional)

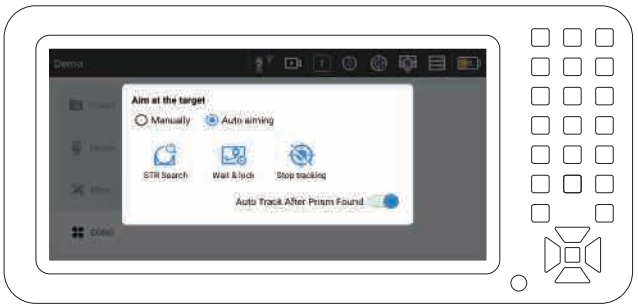
Physical	Dimension	102*95*128mm
	Weight	406g
System Configuration	Operating System	LINUX
	Processor	Dual-core 1.2 GHz
	Memory	RAM:128MB ROM:8GB
Communication	Interface	Type-C
	Bluetooth	2.4G
	WIFI	2.4G
	Radio	900MHz~920MHz; 26dB
Environmental	Operation Temperature	-25℃ to +65℃
	Storage Temperature	-40℃ to +65℃
Power Supply	Power Consumption	≤35.28Wh(Measurement mode)
	Duration	≥10h (Measurement mode)

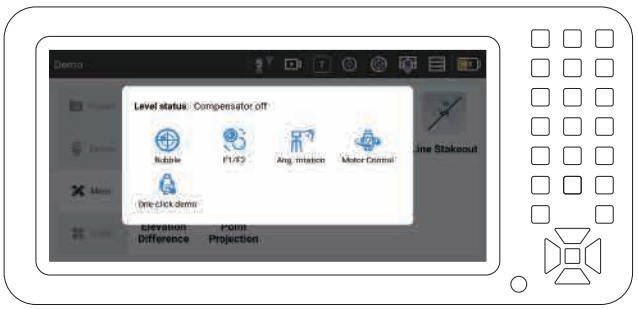
UHF+GNSS+IMU

Accuracy	RTK	H: 8mm+1ppm RMS
		V: 15mm+1ppm RMS
	RTK Tilt Survey	±3cm(≤30°)
	Optical Tilt Survey	3mm+0.6mm/°(2σ, 0°~60°)

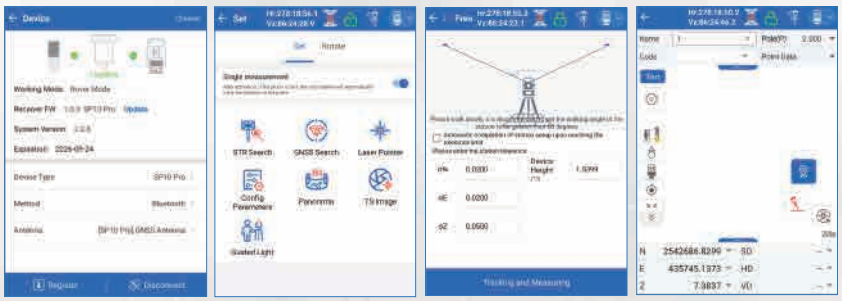
Software Control

T-Survey Software





Hi-Survey Software

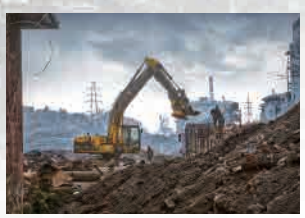


Applications

Single-person Surveying

Bridge Surveying

Dam Surveying



Machine Control

SPECIFICATIONS

ANGLE MEASUREMENT	
Angle Measuring Principle	Rotary absolute encoder
Accuracy	2″
DISTANCE MEASUREMENT	
Prism	1.5m to 3500m
Reflective Sheet	1.5m to 500m
Distance Accuracy	
Prism	2mm+2ppm
Reflective Sheet	3mm+2ppm
Physical	
Dimension	226*227*423mm
Weight	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″
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
SUPER TARGET RECOGNITION	
Distance	5 to 600m
In-FOV Search Time	≤3s
COMMUNICATION	
Interface	Type-C, TF Card
Network	LTE, TD-SCDMA, CDMA200, GSM
WIFI	2.4G HZ Dual-Band, support AP mode and wifi
POWER SUPPLY	
Power Consumption	70.56Wh (Measurement mode)
Duration	≥4.5h (Measurement mode)
Power Source	Rechargeable battery
SYSTEM CONFIGURATION	
Operating System	Android
Processor	Qualcomm CPU@ octa-core 1.8 GHz
Memory	RAM: 3GB, ROM: 32GB
ENVIRONMENTAL	
Operation Temperature	-30℃~+50℃
Storage Temperature	-40℃~+70℃
IP 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.

AUTHORIZED DISTRIBUTION PARTNER

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