TERSUS GNSS

TERSUS

TAS-Z1 Total Station

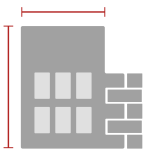
A new generation of total station with a new road survey program

TAS-Z1 Total Station

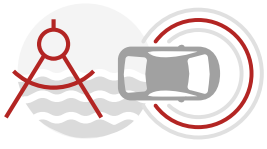
TAS-Z1 adopts a new ranging system, with a long measurement range and fast speed. Laser pointing technology on the same vertical axis provides more accurate alignment. Full number+letter keyboard for more immediate input. Dual-face keyboards with buttons illumination to minimize mistakes provide optimum viewing and convenience under any environmental conditions.

Application Scenario

Surveying and Mapping Engineering



Construction Engineering



Traffic and Water Conservancy Engineering

Cadastral and Real Estate Surveying

Deformation Monitoring

Features

Hardware guarantees high-precision results

150MHz modulation frequency, shorter precision measurement ruler, and higher accuracy at the same signal-to-noise ratio and phase discrimination resolution. The new optical path design fully isolates the transmitting and receiving optical signals, ensuring high accuracy

Convenient and reliable data processing

Support EXCEL table data and DAT data import and export. Add known point files, all projects can call known point coordinates

Coping with road measurements in complex situation

A brand new road measurement program that can calculate horizontal and vertical curves of any type of road, allowing for discontinuous changes in the radius of horizontal curves, including non-complete transition curves with any large deviation angle, straight line elements with straight turning points, and any broken chain piles

Technical Specifications

TAS-Z1 Total Station

Performance	
Distance Measurement:	
- Range	Single prism: 5000m Reflective sheet (60mm × 60mm): 1000m Non-prism(1): 1000m
- Accuracy	Single prism: 2mm+2ppm Reflective sheet (60mm × 60mm): 2mm+2ppm Non-prism: 3mm+2ppm
- Measuring Time	Prism fine: 0.3s Prism tracking: 0.1s Non-prism: 0.3~3s
Angle Measurement	
- Method	Absolute encoding angle measurement technology
- Disc Diameter	Horizontal & Vertical disc: diametrically aligned
Telescope	
- Imaging	Erect
- Mirror Tube Length	154mm
- Effective Aperture Of Objective Lens	45mm
- Magnification	30X
- Resolution	3″
- Minimum Focus Distance	1.2m

Comprehensive Parameters	
- Compensator	Dual-axis liquid photoelectric electronic compensator compensation range: ±4′ resolution: 1″
- Meteorological Correction	Automatic correction of input temperature and pressure
- Prism constant Correction	Automatic correction of input parameters
Level	
- Pipe Level	30″/2mm
- Circular Level	8′/2mm
Level	
- Brightness Level	5-stage regulation
- Accuracy	±1.5mm
EDM System	
	Laser Class 3R Wave Length: 665nm - 695nm
System & Data	
Operating System:	DOS
Storage:	Built-in 12MB (ready for 100,000 points)
Data Input:	CSV
Data Output:	DAT, CSV, DXF File
Data Transmission:	USB, Bluetooth
Dist.Unit:	Meter, Feet, Feet-inch
Battery	
Rechargeable Lithium Battery	DC 7.4V 3100mAh x2
Continuous Working Hours	8h x2
Physical	
Display	LCD, 6 lines digital screen
Keyboard	Alphanumeric, 24 keys with backlight
Control panel	Double
Reading	Max: 99999999.9999m Min: 0.1mm
Dimension	200x190x330mm
Weight	5.5kg
Operating Temperature	-20°C ~ +60°C
Storage Temperature	-30°C ~ +70°C
Dust- & Waterproof	IP55

Note:
(1) Kodak White, 90% reflectivity

Tersus GNSS Inc.

Right to the point.

Tersus GNSS is a leading Global Navigation Satellite System (GNSS) solution provider. Our offerings and services aim to make centimeter-precision positioning affordable for large-scale deployment.
Founded in 2014, we have been pioneers in design and development GNSS RTK products to better cater to the industry' s needs. Our portfolios cover GNSS RTK & PPK OEM boards, David GNSS Receiver, Oscar GNSS Receiver and inertial navigation systems.
Designed for ease of use, our solutions support multi-GNSS and provide flexible interfaces for a variety of applications, such as UAVs, surveying, mapping, precision agriculture, lane-level navigation, construction engineering, and deformation monitoring.

Descriptions, specifications and related materials are subject to change.

To learn more, please visit: www.tersus-gnss.com
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