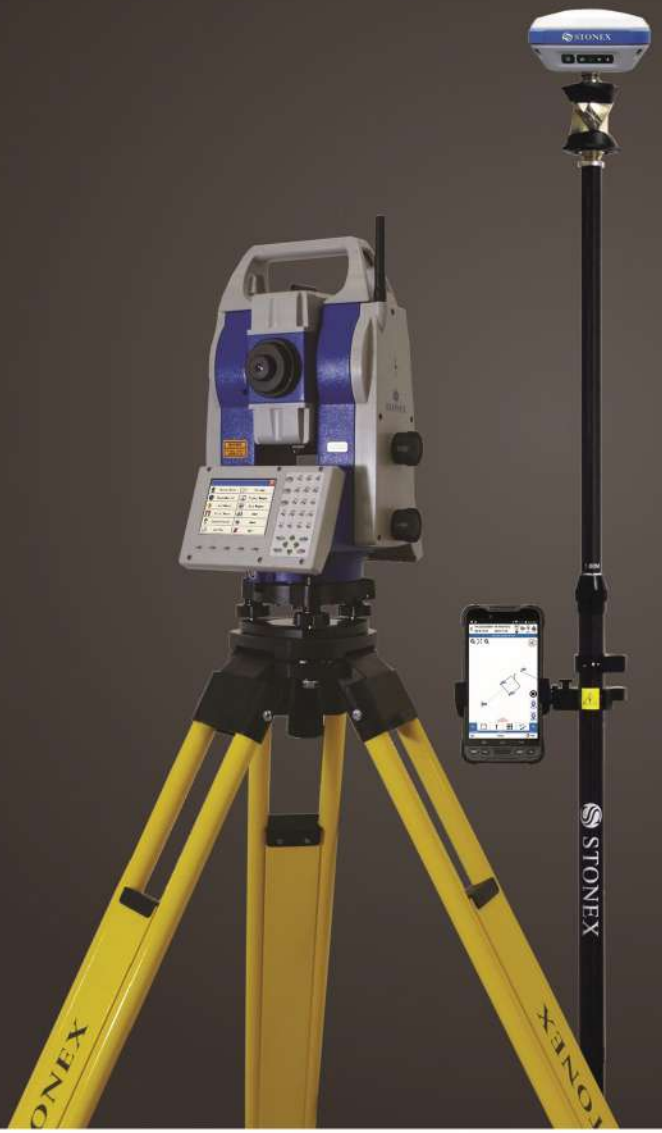
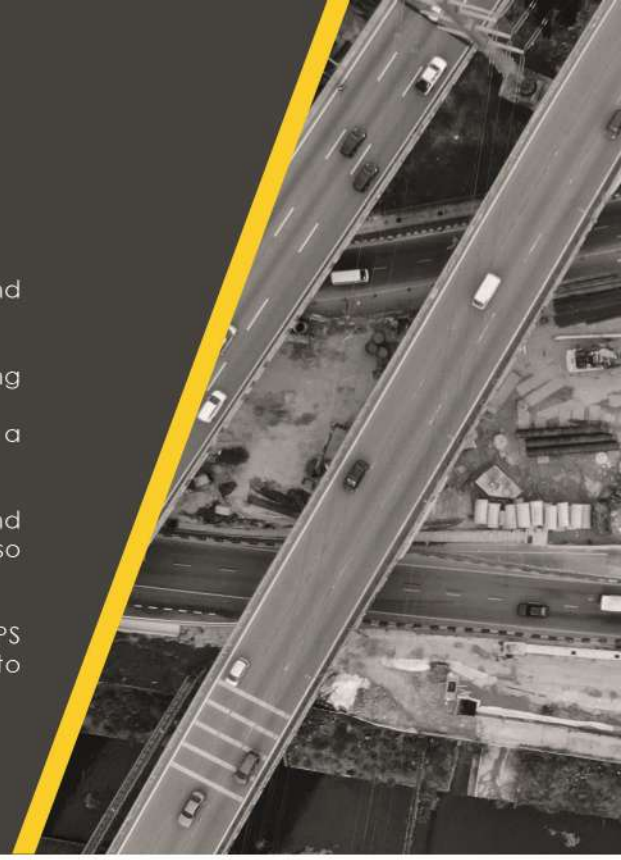
STONEX

R80 OnePole Solution

Integrated solution
for your Survey



R80 Integrated solution for your Survey



Stonex R80 is a Motorized Total Station for classic jobs of survey and stakeout.

R80 adopts up to date automatic prism recognition and positioning technology and has an high accuracy of 0.5"-1".
R80 has a distance measurement accuracy of 1 mm + 1 ppm (Prism) and a 1.000 m long range reflectorless distance measurement.

This motorized Total Station runs Windows CE 7.0 operating system and users can choose the software that best meets their needs. It supports also SDK and external control protocol for software developing.

R80 OnePole Solution can be managed by switching from a TS to GPS method in a single solution thanks to Cube-a Software which is able to control every part of the survey.

HIGH PRECISION SURVEYING

Angle measurement accuracy 0.5"-1"
Distance measurement accuracy 1 mm + 1 ppm (Prism)

LONG DISTANCE REFLECTORLESS

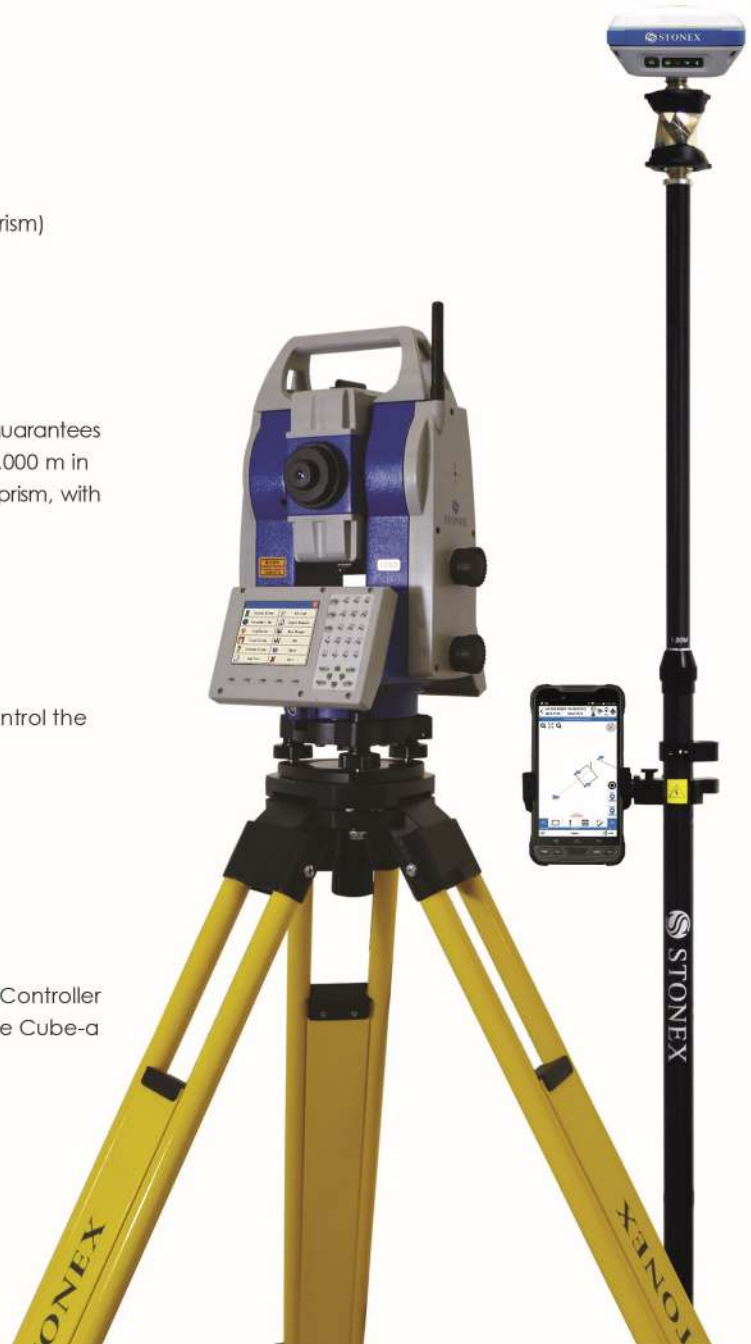
By using digital phase laser ranging technology, R80 guarantees high accuracy long range measurements: up to 1.000 m in reflectorless mode and up to 5.000 m using a single prism, with millimeter accuracy.

BLUETOOTH LONG RANGE

Use R80 built in Bluetooth for data transfer or to control the TS remotely.

ANDROID CONTROLLER

You have complete control of the TS thanks to a Controller with Android on board and a powerful Software like Cube-a



STONEX SURVEYING SYSTEMS

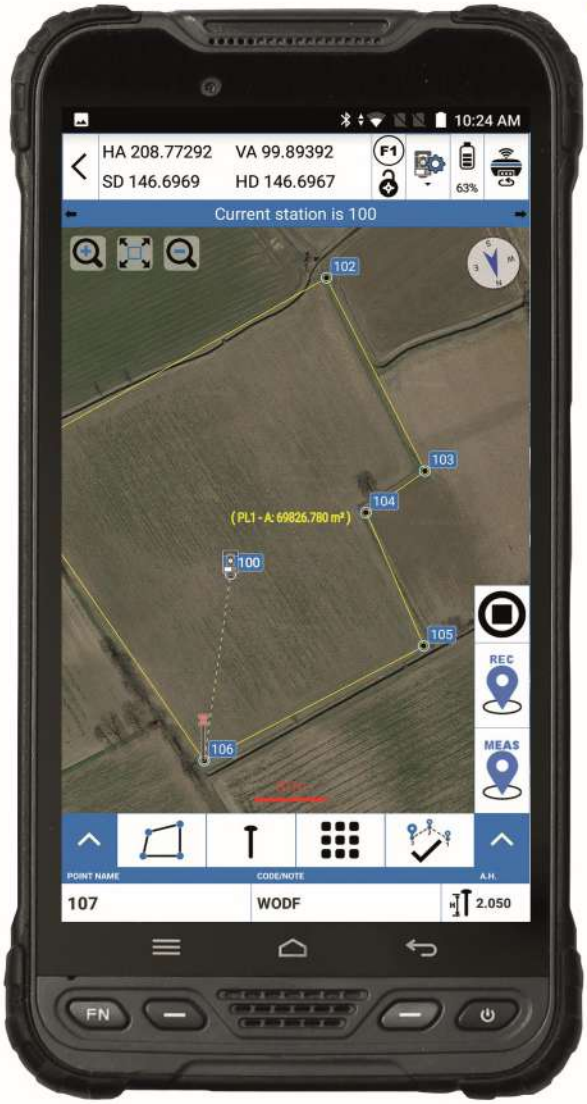
OnePole Solution

TS+GPS with Cube-a Software

OnePole Solution combines the millimeter positioning accuracy of a prism measurement with the advantage of measuring points not visible from the TS through the GPS Receiver.
A total station needs local control points on which it can be set. These points must be visible from the station and therefore the line of sight has to be free of obstacles.
An RTK GPS receiver can determine its position in seconds with centimeter level accuracy using data from satellites.
The ability to combine and use both systems simultaneously greatly improves surveying efficiency.

Advantages of the system:

- The OnePole Solution allows you to work simultaneously with TS and GPS
- TS and GPS (and diastimeter) can be simultaneously connected to the controller using Bluetooth
- Change the measurement mode from TS to GPS by one simple tap on the always accessible switch button
- Reduce prism search times through auto aiming to the current GPS position
- Easily setup your TS position by Station On Point and Free Station/Resection programs
- View on Google Maps your TS and GPS surveys



R80 TECHNICAL FEATURES

ANGLE MEASUREMENT	
Accuracy[1]	0.5"-1"
Reading system	Absolute, continuous four-quadrant
Display Resolution (selectable)	0.1" / 0.5" / 1"
Angle Units	DEG 360°/GON 400/MIL 6.400

TELESCOPE	
Magnification/ Field of view	30x/1°20'
Tube length	156 mm
Minimum focus distance	1.5 m
Reticle	10 brightness levels adjustable
Objective aperture	φ 45 mm
Laser pointer	Red light, coaxial

TILT SENSOR	
Type	Electronic, quadruple-axis
Compensation range/accuracy	± 3.0'/1"

DISTANCE MEASUREMENT RANGE[2]	
Standard mode prism	2.500 m [3]
Long mode prism	5.000 m [4]
Reflective sheet (6cm x 6cm)	800 m [4]
Reflectorless[5]	Up to 1.000 m [4]

DISTANCE MEASUREMENT ACCURACY[6]	
Standard mode prism	1 mm + 1 ppm
Long mode prism	4 mm + 2 ppm
Reflective sheet (6cm x 6cm)	2 mm + 2 ppm
Reflectorless	3 mm + 2 ppm

MEASUREMENT TIME	
Standard mode/Prism (Tracking/Fine)	0.4/ 0.8 sec
Reflectorless	1.5÷3 sec

DISTANCE MEASUREMENT	
Distance Unit	m/US ft/INT ft
Display Resolution (selectable)	0.0001m/0.001m 0.001ft/0.01ft

MOTORIZATION	
Technology	Gear motor drives
Max rotation speed	35°/sec
AIM accuracy	±1.5", ±1.5 mm @ <100 m
AIM range	1000 m at round prism
Search range	800 m at round prism
Lock range	600 m at round prism
Max lock speed	50 km/h at 100 m

LASER PLUMMET	
Laser type	635nm semiconductor laser
Accuracy	1mm/1.5 m
Spot	± 1.5mm/1.5 m

LEVEL VIAL SENSITIVITY	
Plate level	30"/2mm
Circular level	8'/2mm

ENVIRONMENTAL CONDITIONS	
Operating Temperature	-20° C +50° C
Storage Temperature	-40° C +70° C
Waterproof/Dustproof	IP55
Humidity	95% non-condensing

PHYSICAL SPECIFICATION	
Dimensions	220 x 225 x 380 mm
Weight including battery and tribrach	7.9 Kg

POWER	
Battery Voltage/Capacity	7.4V/5.800mAh Li-ion
Operating time	5-8 hours
Battery charger	110/220V, charging time 4h

OTHER SPECIFICATIONS	
CPU	ARM Cortex A8
Display/Keyboard	Two sides, 3.5" color TFTLCD 320x240 pixel touch screen
OS	Windows CE 7.0
Memory	4Gb internal
Interface	RS-232C/standard USB/ mini USB/Bluetooth long range
Guide Light	100 m
Sensor	Temperature/Pressure

Illustrations, descriptions and technical specifications are not binding and may change

1 Standard deviation based on ISO 17123-3
2 Good condition: no haze, visibility about 40km, no heat shimmer, breeze. Under optimal conditions on Kodak Grey Card (90% reflective)
3 Class 1
4 Class 3R
5 Under optimal conditions on good surface
6 Standard deviation based on ISO 17123-4

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