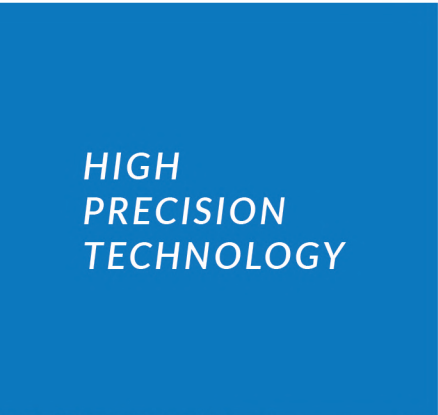




A collage of images illustrating the applications of STONEX technology. The top row shows a 3D point cloud of a building, a STONEX sensor mounted on a building facade, and a surveying station on a tripod. The middle row features a surveying station on a building, two smartphones displaying the 'cube-a' app, and a yellow kayak on a river. The bottom row includes a surveying station on a tripod in front of a building, a bridge with a STONEX sensor, and a world map with location pins. The background of the bottom right is a blue sky with clouds.

www.stonex.it





ABOUT THE COMPANY



EUROPE HQ

Headquartered on the outskirts of Milan, Italy, STONEX is one of the world leader company on measurement and survey, with over 200 qualified distributors worldwide.

Joined together with an unbeatable professional expertise Stonex offers a wide range of top quality services, to satisfy all pre-sales and post-sales needs.

Stonex is a part of Beijing UniStrong Science & Technology Co. Ltd, global provider of GNSS, positioning and timing technology for the geospatial market.

AMERICA HQ

The Stonex Headquarters in America is located in the United States, in the city of Concord, New Hampshire. Opened in 2019, this office aims to strengthen the presence of Stonex in North America.

With USA Headquarters as a base, Stonex has the opportunity to be closer to the needs of its customers through greater territorial coverage and strengthening of global business.



Fields of Application

Thanks to the integration of different positioning technologies and software the wide range of solutions allows to meet the needs of many fields of application and industries, such as:



Construction



Monitoring



Agriculture



Mapping & GIS



Surveying



Marine



Machine Control



3D Scanning

ONE PLACE
ONE ACCOUNT
ALL STONEX WORLD



STONEX

FOLLOW US



2022

A worldwide Network of
Professional Dealers

HIGH
PRECISION
TECHNOLOGY
www.stonex.it

OUR PRODUCTS

-  GNSS SURVEYING
-  OPTICAL SURVEYING
-  3D SCANNING
-  SOFTWARE
-  SPECIAL PROJECTS



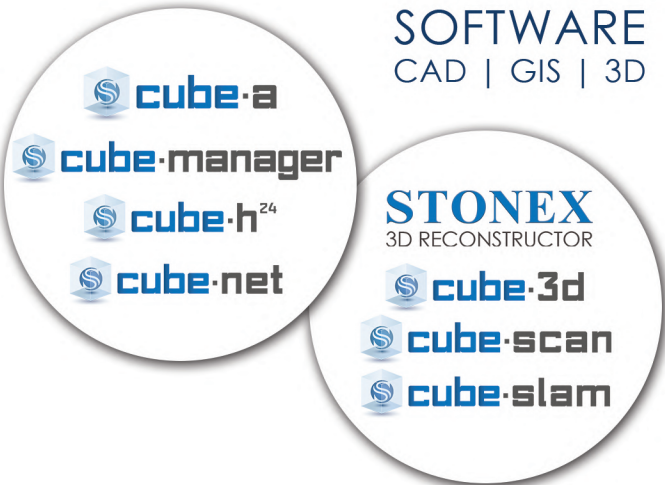
SURVEYING
GNSS | TS | GIS



3D SCANNING
HANDHELD | TERRESTRIAL



A Stonex Solution for each Geospatial need.



SOFTWARE
CAD | GIS | 3D



SPECIAL PROJECTS
CUSTOMIZED SOLUTIONS



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Survey GNSS

Powerful Solutions for all Surveying jobs

STONEX offers a broad range of GNSS receivers to meet your needs. STONEX receivers combine the world's most advanced technology with practical, integrated designs to simplify your daily work.

Designed for the requirements of Professional Surveyors, GNSS STONEX portfolio includes a full range of options, allowing the users to choose the best solution for each one's needs.



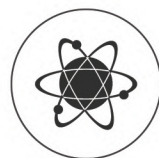
S700A

Modular GNSS system

Stonex S700A is a compact, high-performance GNSS receiver features a multi-constellation 700-channel GNSS board.

S700A supports GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS. S700A supports also L-band correction. The unique internal antenna combines GNSS, Bluetooth and Wi-Fi integrated modules to optimize space and increase performance. This technology provides stronger and cleaner signal monitoring, which means unprecedented results. Designed for all day use in surveying applications, S700A includes several features: Linux Operating System, WEB UI, 4G Modem, high battery capacity, Type-C connector and IP67 certification.

Stonex S700A GNSS receiver, thanks to aRTK function and Atlas® correction service is an ideal solution for any surveying field work and in particular difficult areas. Atlas® delivers worldwide centimeter level correction data through L-band satellite communication.



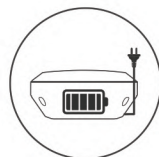
MULTI CONSTELLATION

Stonex S700A with its 700 channels, provides an excellent on board real-time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS) are included.



WEB UI CONTROL

To initialize, manage, monitor the settings of the receiver and to download data using laptops or PCs, smartphones or tablets with Wi-Fi capability.



NEW BATTERY AND TYPE-C

Stonex S700A is delivered with a large capacity lithium battery that gives you up to 9 hours working. It is also equipped with Type-C connector.



4G MODEM

S700A has an internal 4G modem that operates with all world signals.



RUGGED

With IP67 certification Stonex S700A will ensure operations in various kinds of extremely tough environments.



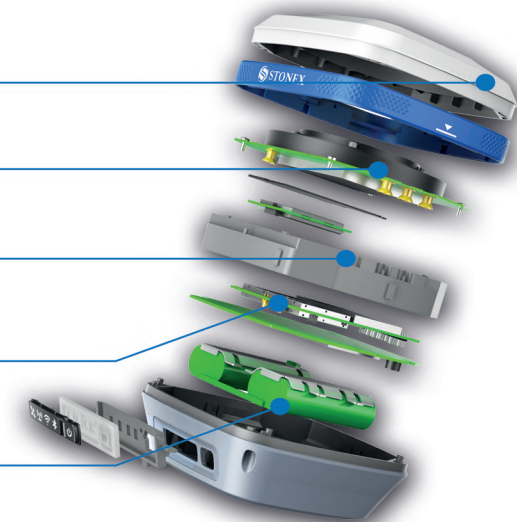
STRONG DESIGN | IP67

BLUETOOTH | WI-FI | GNSS ANTENNA

4G MODEM

LINUX OS | GNSS BOARD

NEW BATTERY | TYPE-C CONN.



S700A

Atlas® Correction Service & aRTK

S700A is a Stonex GNSS Receiver capable to automatically select the best combination of GNSS signals with the possibility to receive Atlas® RTK L-band. ATLAS is an exclusive PPP technology that provides real-time, centimeter-level positions. PPP (Precise Point Positioning) is a positioning technique that removes or models GNSS system errors to provide a high level of position accuracy from a single receiver. A PPP solution depends on GNSS satellite clock and orbit corrections, generated from a network of global reference stations. Once the corrections are calculated, they are delivered to the end user via satellite through L-band signal.

Atlas® is a subscription for S700A aimed to achieve 3 different levels of accuracy depending on the precision type that you need:

- BASIC, 50 cm 95% (30 cm RMS)
- H30, 30 cm 95% (15 cm RMS)
- H10, 8 cm 95% (4 cm RMS)

Atlas® provides a precise centimeter-level positioning around the world, perfect when working in difficult areas. aRTK is an innovative feature available in Stonex S700A GNSS Receiver that continues to generate precise positions up to 20 minutes in case the receiver loses the land based RTK correction source.

S850A

With Atlas®
and IMU

Equipped with an advanced 800-channel GNSS board and capable of supporting multiple satellite constellations, including GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS. Stonex S850A GNSS receiver is an ideal solution for any surveying field work. S850A has also L-band correction.

The advanced receiver's design gives to the S850A an excellent signal tracking ability and interference resistant capacity. Advantages of portability and speed of operation make S850A GNSS receiver particularly suitable for fieldwork in areas of complex terrain.

Stonex S850A is equipped with Linux OS and all the necessary connections, has integrated Bluetooth and internal Wi-Fi functionality; it has a built-in dual frequency UHF radio, 410-470 MHz and 902.4-928 MHz and the worldwide compatible 4G GSM modem.

Stonex S850A integrates also the new IMU System that allows tilted measurement (TILT) up to 60°: quick initialization, fast and precise survey.



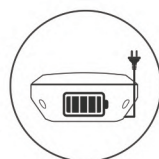
MULTI CONSTELLATION

Stonex S850A with its 800 channels, provides an excellent on board real-time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS) are included, no additional cost.



IMU TECHNOLOGY

On S850A is available the IMU technology. Fast initialization, up to 60° inclination.



HIGH BATTERY CAPACITY AND TYPE-C

Stonex S850A is delivered with a large capacity lithium battery and Type-C connector to recharge it easily.



RADIO AND GSM

S850A has integrated UHF double frequency radio, 410-470MHz and 902.4-928MHz. Through the 4G GSM modem a fast internet connection is guaranteed.



RUGGED RTK

With IP67 certification Stonex S850A will ensure operations in various kinds of extremely tough environments.



S850A IMU Technology

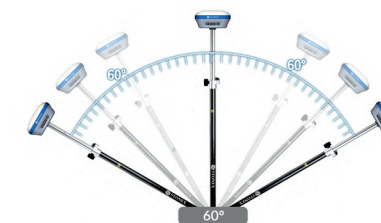
S850A GNSS receiver has the new IMU System that allows tilted measurement (TILT). Thanks to the new IMU technology, the edges of the houses, the difficult and inaccessible points are no longer a problem.

What is an Inertial Measurement Unit (IMU)?

An Inertial Measurement Unit (IMU) is a self-contained system that measures linear and angular motion usually with a triad of gyroscopes and accelerometers. Stonex S850A with IMU system makes every measurement reliable, in both survey and the stake-out jobs, and makes the acquisition of points extremely faster: up to 40% of the field work time can be saved!

What are the performances of the S850A with IMU?

- No problem of electromagnetic disturbances
- Fast initialization
- Up to 60° inclination
- 2 cm accuracy 30°
- 5 cm accuracy 60°
- Fast and precise survey



Atlas® Correction Service & aRTK atlas

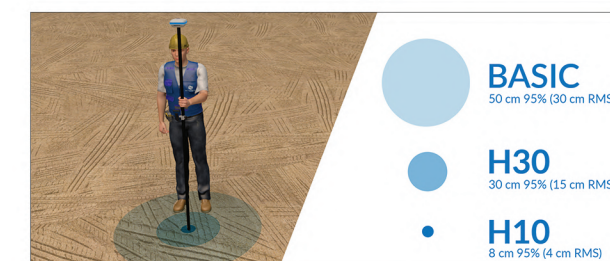
S850A is a new Stonex GNSS Receiver capable to automatically select the best combination of GNSS signals with the possibility to receive Atlas® RTK by L-band. ATLAS is an exclusive PPP technology that provides real-time, centimeter-level positions. PPP (Precise Point Positioning) is a positioning technique that removes or models GNSS system errors to provide a high level of position accuracy from a single receiver.

A PPP solution depends on GNSS satellite clock and orbit corrections, generated from a network of global reference stations. Once the corrections are calculated, they are delivered to the end user via satellite through L-band signal.

Atlas® is a subscription for S850A aimed to achieve 3 different levels of accuracy depending on precision type that you need: Atlas® provides a precise centimeter-level positioning around the world, perfect when working in difficult areas.

Main features

- No RTK base station or RTK network required
- Correction data is continuously transmitted by satellite L-band, delivering global coverage
- Bridging RTK outages for uninterrupted accurate positioning
- Autonomous remote position within centimeter accuracy
- Retain position accuracy during RTK data stream losses
- Keep position accuracy as long as needed



S900

Powerful Precision Performance

S900 is the result of the continuous evolution of the Stonex GNSS receivers. Featuring a high accuracy multi constellation antenna, a powerful UHF dual frequency transmitter and a GSM 4G modem, for a fully integrated multi-communication choice; all combined with a light and modern design.

Stonex GNSS S900 receiver tracks all the present constellations and satellite signals GPS, GLONASS, BEIDOU, GALILEO, QZSS, IRNSS and through the upgradable firmware offers the opportunity to move to the latest available features, and so to work with an always up-to-date GNSS.

S900 can accommodate two smart hot swappable batteries at the same time, ensuring up to 12 hours of operation, without stopping. A user friendly Web UI is available to initialize, manage, monitor and download data.

S900 is also equipped with E-Bubble functionality and the optional IMU technology. Fast initialization, up to 60° inclination.



MULTI CONSTELLATION

Stonex S900 with its 555 channels, provides an excellent on board real-time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS) are included, no additional cost.



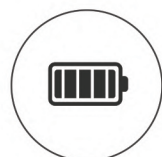
DOUBLE FREQUENCY RADIO

S900 has an integrated UHF double frequency radio, 410-470MHz and 902.4-928MHz. The needs of each country are supported.



E-BUBBLE + IMU

S900 thanks to the E-Bubble can display directly on the software if the pole is vertical and the point will be recorded automatically when the pole is levelled. The IMU technology is also available as optional, only a fast initialization is requested.



SMART BATTERIES

The dual slot for two smart hot swappable batteries gives you up to 12 hours of battery life. The power level can be checked and seen on the controller or directly on a led bar on the battery.



4G MODEM

S900 has an internal 4G modem that operates with all world signals, a fast internet connection is guaranteed.



STONEX



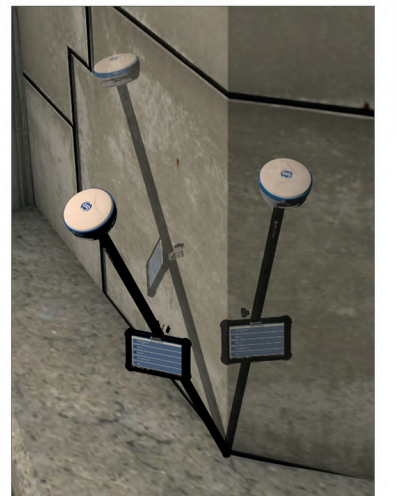
MADE IN ITALY

S900

E-Bubble functionality

Stonex S900 integrates an E-Bubble that allows the measurement of difficult points with the pole not levelled. You can calculate the correct coordinate of a point by measuring from 3 different positions. It is possible to measure points with an inclination of the pole up to 60°, even in harsh environments and in the presence of magnetic fields.

In addition, you can view the instrument bubble directly within the survey software without worrying about checking the bubble of the pole. Thanks to measurement routine integrated into the field software, the management of tilt function is simple and intuitive.



IMU Technology

S900 GNSS receivers have as optional feature the new IMU System that allows tilted measurement (TILT). Thanks to the new IMU technology, the edges of the buildings, the difficult and inaccessible points are no longer a problem.

What is an Inertial Measurement Unit (IMU)?

An Inertial Measurement Unit (IMU) is a self-contained system that measures linear and angular motion usually with a triad of gyroscopes and accelerometers.

What do Inertial Sensors Measure?

- Gyroscope measures angular velocity
- Accelerometer measures linear acceleration
- Magnetometer measures magnetic field strength

What are the performances of the S900 with IMU?

- Fast initialization
- Up to 60° inclination
- 2 cm accuracy 30°
- 5 cm accuracy 60°
- Fast and precise survey
- No problem with electromagnetic disturbances



Stonex S900 with IMU system makes every measurement reliable, in both survey and stake-out jobs, and makes the acquisition of points extremely faster: up to 40% of the field work time can be saved!

S900A

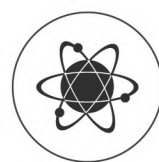
Powerful precision with Atlas®

Stonex S900A is equipped with a high performance GNSS board with 800 channels and it is capable of supporting multiple satellite constellations: GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS, including L-band correction.

Through the 4G GSM modem a fast internet connection is guaranteed for the reception of correction data and the management of the maps in the background. In the amazingly compact structure the Bluetooth and Wi-Fi modules allow always reliable data flow to the controller, and the integrated TX/RX UHF radio with selectable frequencies, makes S900A the perfect system for a GNSS Base + Rover.

Stonex S900A integrates E-Bubble sensor that allows the measurement of difficult points with the pole not levelled. You can calculate the correct coordinate of a point by measuring from 3 different positions.

S900A is also equipped with the optional IMU technology. Fast initialization, up to 60° inclination and the correct coordinates of a point with a simple click.



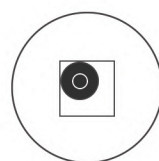
MULTI CONSTELLATION

Stonex S900A with its 800 channels, provides an excellent on board real-time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS) are included, no additional cost.



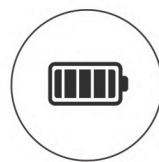
4G MODEM

S900A has an internal 4G modem that operates with all world signals, a fast internet connection is guaranteed.



E-BUBBLE + IMU

S900A thanks to the E-Bubble can display directly on the software if the pole is vertical and the point will be recorded automatically when the pole is levelled. The IMU technology is also available as optional, only a fast initialization is requested.



SMART BATTERIES

The dual slot for two smart hot swappable batteries gives you up to 12 hours of battery life. The power level can be checked and seen on the controller or directly on a led bar on the battery.



DOUBLE FREQUENCY RADIO

S900A has integrated UHF double frequency radio, 410-470MHz and 902.4-928MHz. The needs of each country are supported.



STONEX



S900A

Atlas® Correction Service & aRTK

S900A is a Stonex GNSS Receiver capable to automatically select the best combination of GNSS signals with the possibility to receive Atlas® RTK L-band. ATLAS is an exclusive PPP technology that provides real-time, centimeter-level positions.

Atlas® is a subscription for S900A aimed to achieve 3 different levels of accuracy depending on precision type that you need.

Atlas® gives the precise centimeter-level positioning around the world, perfect when working in difficult areas.

aRTK is an innovative feature available in Stonex S900A GNSS Receiver that continue generating precise positions up to 20 minutes in case the receiver loses the land based RTK correction source.



- BASIC**
50 cm 95% (30 cm RMS)
- H30**
30 cm 95% (15 cm RMS)
- H10**
8 cm 95% (4 cm RMS)

SureFix Robust RTK Positioning

SureFix is the new processor that runs in combination with GNSS engine to provide high fidelity RTK quality information. The SureFix processor takes several inputs and determines the quality of the RTK solution in the form of "quality indicators". The indicators are then combined with RTK data and provide the user with high fidelity information about the quality of the RTK solution.

IMU Technology

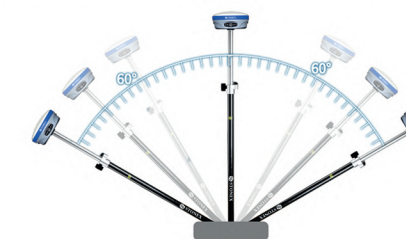
S900A GNSS receivers have as optional feature the new IMU System that allows tilted measurement (TILT). Thanks to the new IMU technology, the edges of the buildings, the difficult and inaccessible points are no longer a problem.

What is an Inertial Measurement Unit (IMU)?

An Inertial Measurement Unit (IMU) is a self-contained system that measures linear and angular motion usually with a triad of gyroscopes and accelerometers.

What are the performances of the S900A with IMU?

- Fast initialization
- Up to 60° inclination
- 2 cm accuracy 30°
- 5 cm accuracy 60°
- Fast and precise survey
- No problem of electromagnetic disturbances



Stonex S900A with IMU system makes every measurement reliable, in both survey and stake-out jobs, and makes the acquisition of points extremely faster: up to 40% of the field work time can be saved!

S980A GNSS Receiver with 5W radio and Atlas®

Stonex S980A of connecting an external antenna make GNSS receiver tracks all the present constellations and satellite signals GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS. Through the 4G GSM modem a fast internet connection is guaranteed and the Bluetooth and Wi-Fi modules allow always reliable data flow to the controller. These features combined with the integrated 2-5 watt radio make S980A the perfect base station receiver.

The color touch display and the possibility of connecting an external antenna makes S980A an extremely effective receiver for every type of job.

S980A is also equipped with an E-Bubble and the optional IMU technology: fast initialization, up to 60° inclination.

S980A has a 1PPS port which can be used in applications that require precise synchronization time to ensure that multiple instruments work together or that use the same parameters for system integration based on precise time.



MULTI CONSTELLATION

Stonex S980A with its 800 channels, provides an excellent on board real-time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS) are included, no additional cost.



2-5W RADIO

S980A has integrated 2-5W UHF radio with 410-470MHz frequency. Our receiver is equipped with an external radio antenna to work better.



E-BUBBLE + IMU

Thanks to the E-Bubble on S980A, the verticality of the pole can be displayed directly into the software and the point will be recorded automatically when the pole is levelled. As an optional it is also available the IMU technology is also available as optional, only a fast initialization is request and it can be transformed from an RTK receiver to a CORS.



COLOR TOUCH DISPLAY

S980A comes with a convenient color touch display for easy management of the most important functions.



EXTERNAL GNSS ANTENNA

S980A, through the appropriate connector, can be connected to an external GNSS antenna and is transformed from an RTK receiver to CORS.



EXTERNAL RADIO ANTENNA

BLUETOOTH | WI-FI | 4G | GNSS ANTENNA

RADIO 5W

BATTERY 13.600mAh | TYPE-C

COLOR TOUCH DISPLAY

EXTERNAL GNSS ANTENNA | 1PPS PORT



IMU technology

Stonex S980A integrates E-Bubble sensor that allows the measurement of difficult points with the pole not levelled. It is possible to measure points with an inclination of the pole over 30° even in harsh environments and in the presence of magnetic fields. S980A GNSS receivers have as optional feature the new IMU System that allows tilted measurement (TILT).

What are the performances of the S980A with IMU?

- Fast initialization
- Up to 60° inclination
- 2 cm accuracy 30°
- 5 cm accuracy 60°
- Fast and precise survey
- No problem of electromagnetic disturbances

Stonex S980A with IMU system makes reliable every measurement, both survey and the stake out jobs, and makes extremely faster the acquisition of points: up to 40% of the field work time can be saved!

SureFix Robust RTK Positioning

SureFix is the new processor that runs in combination with GNSS engine to provide high fidelity RTK quality information. The SureFix processor takes several inputs and determines the quality of the RTK solution in the form of "quality indicators". The indicators are then combined with RTK data and provide the user with high fidelity information about the quality of the RTK solution.

Atlas® correction service & aRTK atlas

S980A is a Stonex GNSS Receiver capable to automatically select the best combination of GNSS signals with the possibility to receive Atlas® RTK L-band. ATLAS is an exclusive PPP technology that provides real-time, centimeter level positions. Atlas® is a subscription for S980A aimed to achieve 3 different levels of accuracy depending on precision type that you need:

- BASIC, 50 cm 95% (30 cm RMS)
- H30, 30 cm 95% (15 cm RMS)
- H10, 8 cm 95% (4 cm RMS)

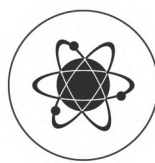
S990A High Performance with Atlas® and IMU

Stonex S990A is a 800 channels GNSS receiver characterized by a new features that enhance the performances of field surveys. The new IMU System allows tilted measurement (TILT): quick initialization, fast and precise survey.

S990A Receiver is equipped with all important connectivity capabilities: Bluetooth, Wi-Fi, UHF radio and 4G modem. The internal battery of 10.200mAh allows to work for 9 hours and can be recharged via a Type-C connector. The color touch display and the Web UI are an easy and fast way to have the complete control of the receiver.

Thanks to aRTK function and Atlas® correction service, Stonex S990A is also able to work in particularly difficult areas. Atlas® delivers world wide centimeter-level correction data through L-band satellite communication and Internet.

1PPS can be applied to scenarios that require precise synchronization time to ensure that multiple facilities work together, or scenarios that use the same parameters for system integration based on precise time.



MULTI CONSTELLATION

Stonex S990A with its 800 channels, provides an excellent on board real-time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BEIDOU, GALILEO, QZSS and IRNSS) are included, no additional cost.



IMU TECHNOLOGY

On S990A is available the IMU technology. Fast initialization, up to 60° inclination.



DOUBLE FREQUENCY RADIO

S990A has integrated UHF double frequency radio, 410-470MHz and 902.4-928MHz. The needs of each country are supported.



4G MODEM

S990A has an internal 4G modem that operates with all world signals, a fast internet connection is guaranteed.



COLOR TOUCH DISPLAY

S990A comes with a convenient color touch display for an easy management of the most important functions.



S990A IMU Technology

S990A GNSS receiver has the new IMU System that allows tilted measurement (TILT). Thanks to the new IMU technology, the edges of the houses, the difficult and inaccessible points are no longer a problem.

What is an Inertial Measurement Unit (IMU)?

An Inertial Measurement Unit (IMU) is a self-contained system that measures linear and angular motion usually with a triad of gyroscopes and accelerometers.

Stonex S990A with IMU system makes every measurement reliable, in both survey and stake-out jobs, and makes the acquisition of points extremely faster: up to 40% of the field work time can be saved!

SureFix Robust RTK Positioning

SureFix is the new processor that runs in combination with GNSS engine to provide high fidelity RTK quality information. The SureFix processor takes several inputs and determines the quality of the RTK solution in the form of "quality indicators". The indicators are then combined with RTK data and provide the user with high fidelity information about the quality of the RTK solution.

Atlas® correction service & aRTK atlas

S990A is a Stonex GNSS Receiver capable to automatically select the best combination of GNSS signals with the possibility to receive Atlas® RTK L-band. ATLAS is an exclusive PPP technology that provides real-time, centimeter level positions. PPP (Precise Point Positioning) is a positioning technique that removes or models GNSS system errors to provide a high level of position accuracy from a single receiver.

Atlas® is a subscription for S990A aimed to achieve 3 different levels of accuracy depending on precision type that you need:

- BASIC, 50 cm 95% (30 cm RMS)
- H30, 30 cm 95% (15 cm RMS)
- H10, 8 cm 95% (4 cm RMS)

Atlas® allows you to have centimeter-level measurements all over the world, perfect when working in difficult areas. aRTK is an innovative feature available in Stonex S990A GNSS receiver that continue to generate precise positions up to 20 minutes in case the receiver loses the land based RTK correction source.



What are the performances of the S990A with IMU?

- No problem of electromagnetic disturbances
- Fast initialization
- Up to 60° inclination
- 2 cm accuracy 30°
- 5 cm accuracy 60°
- Fast and precise survey

Product Comparison



S700A



S850A



S900



S900A



S980A



S990A

Channels		700	800	555	800	800	800
Signals Tracking	GPS	✓	✓	✓	✓	✓	✓
	GLONASS	✓	✓	✓	✓	✓	✓
	BEIDOU	✓	✓	✓	✓	✓	✓
	GALILEO	✓	✓	✓	✓	✓	✓
	QZSS	✓	✓	✓	✓	✓	✓
	L-BAND	Atlas	Atlas	NO	Atlas	Atlas	Atlas
	SBAS	✓	✓	✓	✓	✓	✓
aRTK		✓	✓	NO	✓	✓	✓
Rate Hz		5-20	10-20	5	10-50	10-50	10-50
Memory		8GB	8GB	8GB	8GB	32GB	32GB
Bluetooth		✓	✓	✓	✓	✓	✓
Wi-Fi		✓	✓	✓	✓	✓	✓
Web User Interface		✓	✓	✓	✓	✓	✓
OS Linux		✓	✓	✓	✓	✓	✓
Display		NO	NO	NO	NO	✓	✓
Radio UHF 410 - 470 MHz		NO	✓	✓	✓	5Watt	✓
Radio UHF 902.4 - 928 MHz		NO	✓	✓	✓	NO	✓
GSM 4G		✓	✓	✓	✓	✓	✓
E-Bubble		NO	✓	✓	✓	✓	✓
IMU		NO	✓	✓	✓	✓	✓
1PPS		NO	NO	NO	NO	✓	✓
External GNSS antenna		NO	NO	NO	NO	✓	NO
Nr. Battery		1	1	2	2	1	1
Weight		1.10 Kg	1.10 Kg	1.30 Kg	1.30 Kg	1.50 Kg	1.40 Kg
Operating Temperature		-30°C +65°C	-40°C +65°C	-40°C +65°C	-40°C +65°C	-40°C +65°C	-40°C +65°C
Protection class		IP67	IP67	IP67	IP67	IP67	IP67

GNSS RECEIVERS

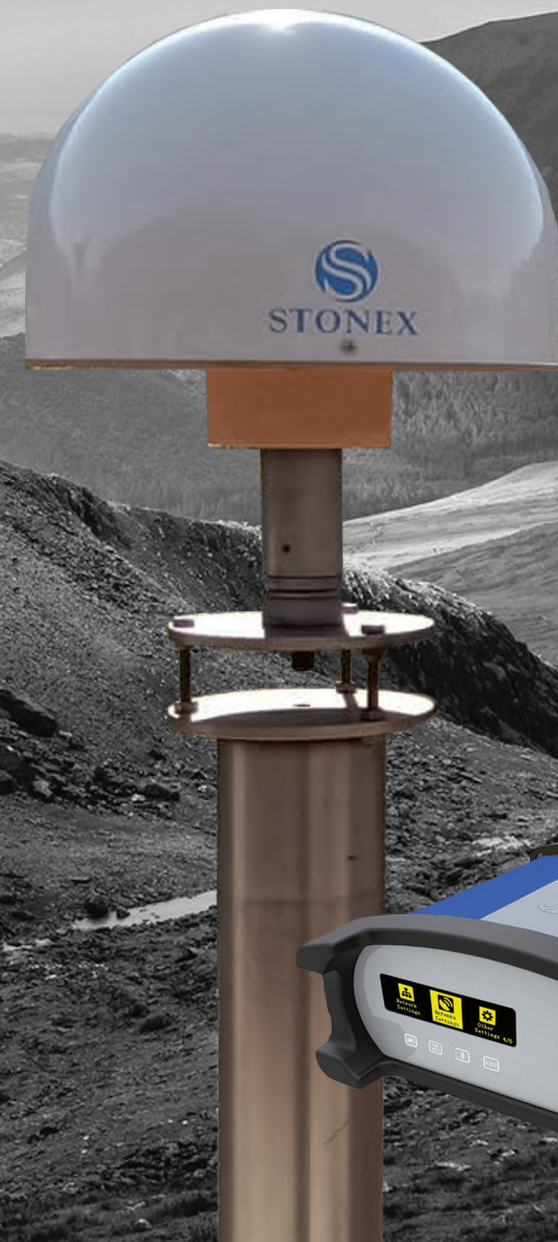
Network & Monitoring

High Quality and Performance GNSS Reference Receivers

STONEX technology for GNSS reference stations and networks continues to evolve and meet the rapidly changing demands of GNSS technology.

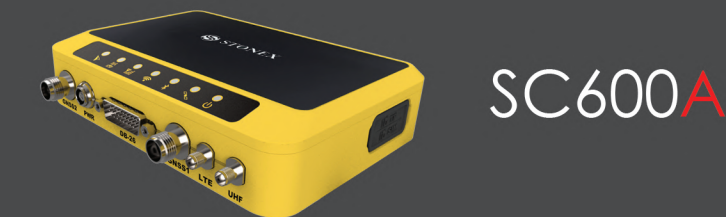
STONEX C.O.R.S. stations (Continuously Operating Reference Station) are flexible and adaptable, and offer multiple solutions.

STONEX C.O.R.S. stations meet the highest demands for reliability and work in the toughest environments. Professionals put them to work on any type of GNSS applications, from campaign and permanent single base stations to RTK networks, from structural monitoring to offshore positioning, or from atmospheric research to seismic studies.



GNSS Reference Station

CORS stations can be used either for the start of a new infrastructure network or for an integration into existing networks. It is possible to use CORS stations as a Rover for special applications (agriculture, machine control, bathymetry, structure monitoring, etc...) and with several software solutions according to the customer's request.



The Stonex CORS stations are GNSS multi-frequency receivers designed to be used either as stand-alone Reference Stations or as part of a GNSS stations' infrastructure. Stonex CORS stations are typically used as NTRIP server and they are ultimate equipment for all those jobs that are based on GNSS correction data acquisition, processing, distribution and management; moreover, the stations support also the recording of raw data with a high frequency of acquisition.



GNSS Antennas

High Precision Antennas for all Survey works

Stonex family of GNSS antennas is designed to enhance and support the performance of Stonex precise positioning receivers. The antennas receive GNSS multi-constellation signals.

Each antenna is built to withstand various application and surveying needs. The Stonex antennas can be used in land survey, marine survey, channel survey, seismic monitoring, bridge survey, container operation and agriculture applications.

They have high gain and wide beam width to ensure the signal receiving performance of satellite at low elevation angle. The phase center of these antennas remains constant as the azimuth and elevation angle of the satellites change.

Signal reception is unaffected by the rotation of the antenna or satellite elevation, so placement and installation of the antenna can be completed with ease.



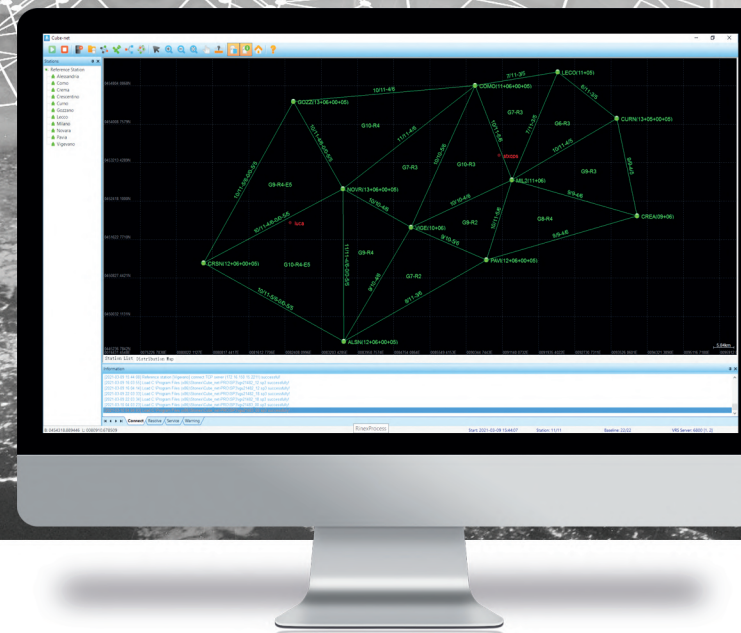


Cube-net is a GNSS software for centrally controlling and operating GNSS reference stations and networks.

Data from reference stations can be collected to calculate a solution to rover's users for obtaining precise position. Receive all necessary corrections data to determine the absolute position of a rover at any location. Manage subscriptions automatically from web user interface. Performance analysis through real time control of the whole network.

The software manages the 4 main constellations GPS, GLONASS, GALILEO and BEIDOU in three frequencies and supports the Virtual Reference Station network solution.

The full version includes a Web interface through which users can register and subsequently request the RINEX files of the stations or Virtual RINEX.



GNSS technologies

Modules

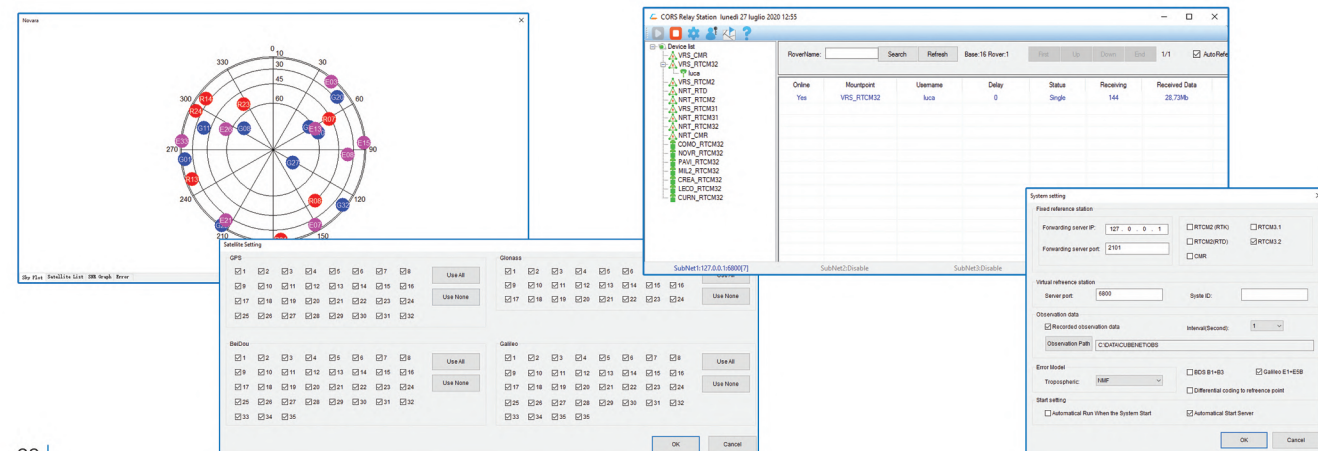
The Cube-net Software, in its complete version, consists of six different modules:

- **Cube-cors:** module that allows remote management of network stations.
- **DataManager:** module that allows you to manage the storage of station data and the results of the network calculation.
- **AccuracyMonitor:** module for analyzing the performance of stations.
- **GNSS.core:** is the main component, it deals with the connection of the stations and the network calculation.
- **GNSS.caster:** module for managing network users and distributing differential corrections.
- **GNSS.web:** web site of the network, constitutes an interface for both users and the operator with the service offered. Users can apply for registration and once obtained request the data of the physical or virtual stations. The manager can monitor the status of the network and user activity in real time, publish information and view reports.

Software configuration and management

The software is configured through a graphic interface in a few simple steps:

- System configuration: caster address and port, data storage, automatic start settings.
- Station configuration: connection setting, general information and antenna type, coordinates.
- Network configuration: minimum and maximum distance between stations, virtual station distance, choice of tropospheric model.



The software supports the following frequencies and signals:

- GPS: L1, L2, L5
- GLO: L1, L2, L3
- BDS: B1, B2, B3
- GAL: E1, E5a, E5b

The receivers of the stations of the network managed by the software must be multi-frequency, at least GPS L1 + L2. They don't need to be multi-constellation. The differential corrections provided by the software can be exploited by receivers of any type.

Supported input formats are:

- RTCM2
 - RTCM3
 - Raw data from Stonex receivers and major receiver manufacturers
- The software supports the following ways of connecting the receivers:**
- TCP Server
 - TCP Client
 - NTRIP Client
 - Serial port

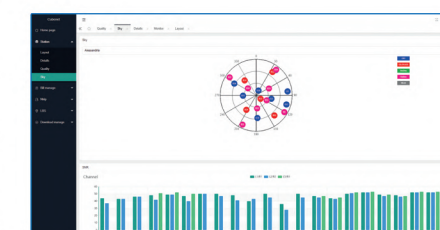
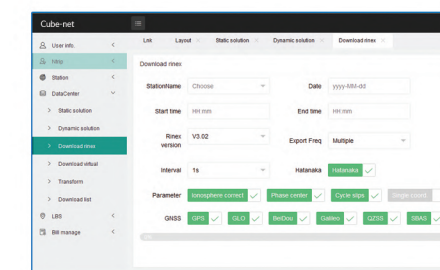
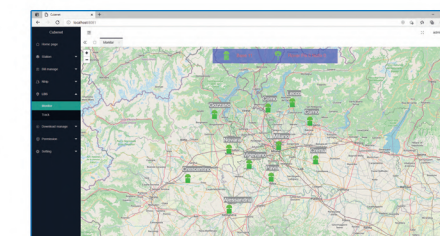
Real-time products are of two types:

- Network solution. The software processes a virtual station located near the rover.
- Real station. The software makes available the data of the real stations of the network, with the possibility of automatically receiving the data of the nearest station, chosen by the software based on the position of the rover.

Real-time products are distributed through an NTRIP Caster, so to connect to the software you need to use an NTRIP client.

For users working in post-processing, the data of the real stations are made available in the standard RINEX format with sampling at 1 Hz. The possibility is also offered to create data for a virtual station (Virtual RINEX) located inside the network.

At present the software has shown that it can manage networks of up to 200 stations and 600 simultaneous users.



GIS, Mobile GNSS & Controllers

Solutions for accurate geographic data field collection

GIS solutions combine positioning, communications and software to equip the mobile workforce.

GIS products greatly improve productivity in hundreds of industries by geo-enabling field workforces with precision, rugged, and easy to use products.

STONEX provides a wide variety of applications to the GIS industry. All applications involve the use of innovative STONEX mobile solutions to allow organisations to integrate their field personnel into a bidirectional data flow.

Powerful tools for display, query and selection, ensure that field personnel receives the maximum advantage for both the data they already hold and the data they are collecting.

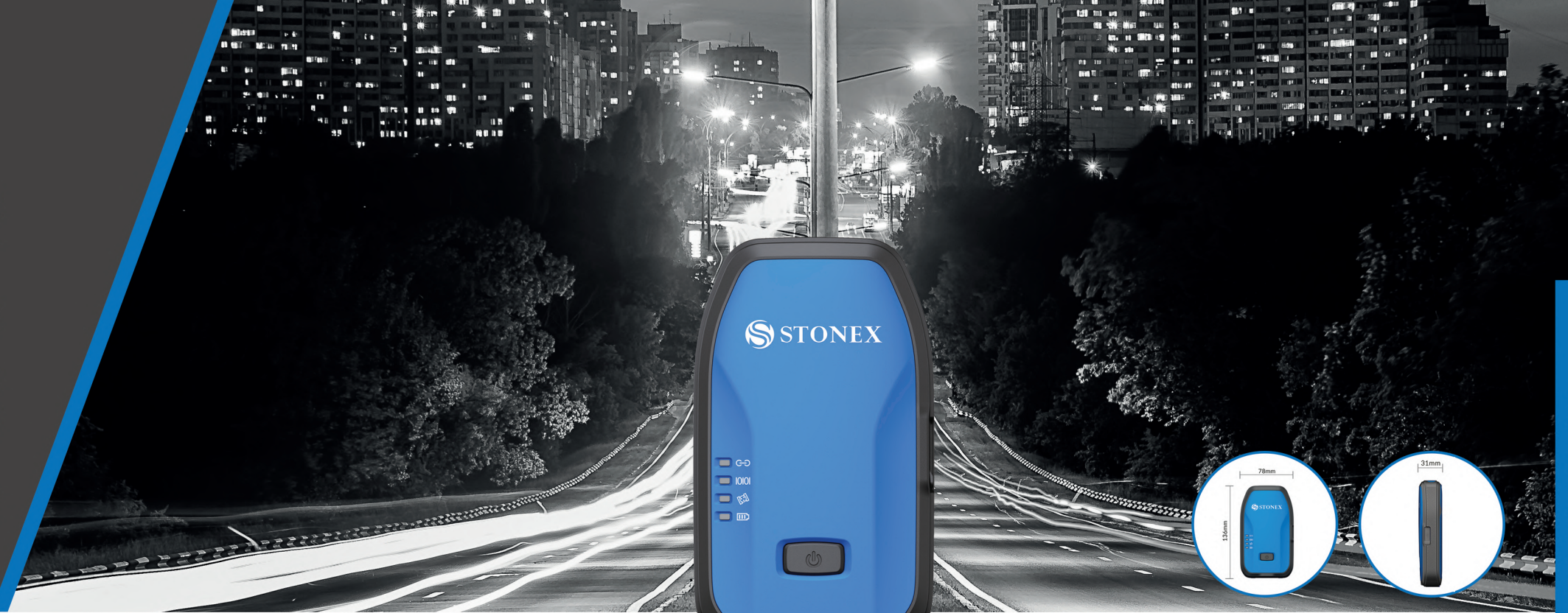


S580 From GIS to Topography

S580 is a compact and lightweight GNSS receiver, with outstanding performance and centimeter accuracy. S580 tracks dual frequency signals and works with all satellite systems (GPS, GLONASS, BEIDOU, GALILEO and QZSS).

Compared to traditional GIS products, the S580 is a high-precision, intelligent data acquisition receiver, that can be worn or attached to the pole, offering greater freedom of movement and flexibility. The S580 can communicate with an external device such as a tablet, smartphone or PC via Bluetooth and Wi-Fi. Using the internal web interface, or through the Cube-connector APP, the receiver can be configured and prepared to receive RTK differential corrections and ready to be connected to any survey or GIS software.

The rubber protection cover, increase device protection, non-slip and no damage, the whole device protection class reaches IP67, and resists 1.2m drops on hard surfaces.



ANDROID SYSTEM
Android system on board.



FULL CONSTELLATION SYSTEM
GPS, GLONASS, BEIDOU, GALILEO, QZSS.



HIGH PRECISION
High precision positioning, centimetric accuracy.



WEB UI
Web interface for controlling and managing settings.



DATA TRANSMISSION
Wi-fi, Bluetooth and external radio.



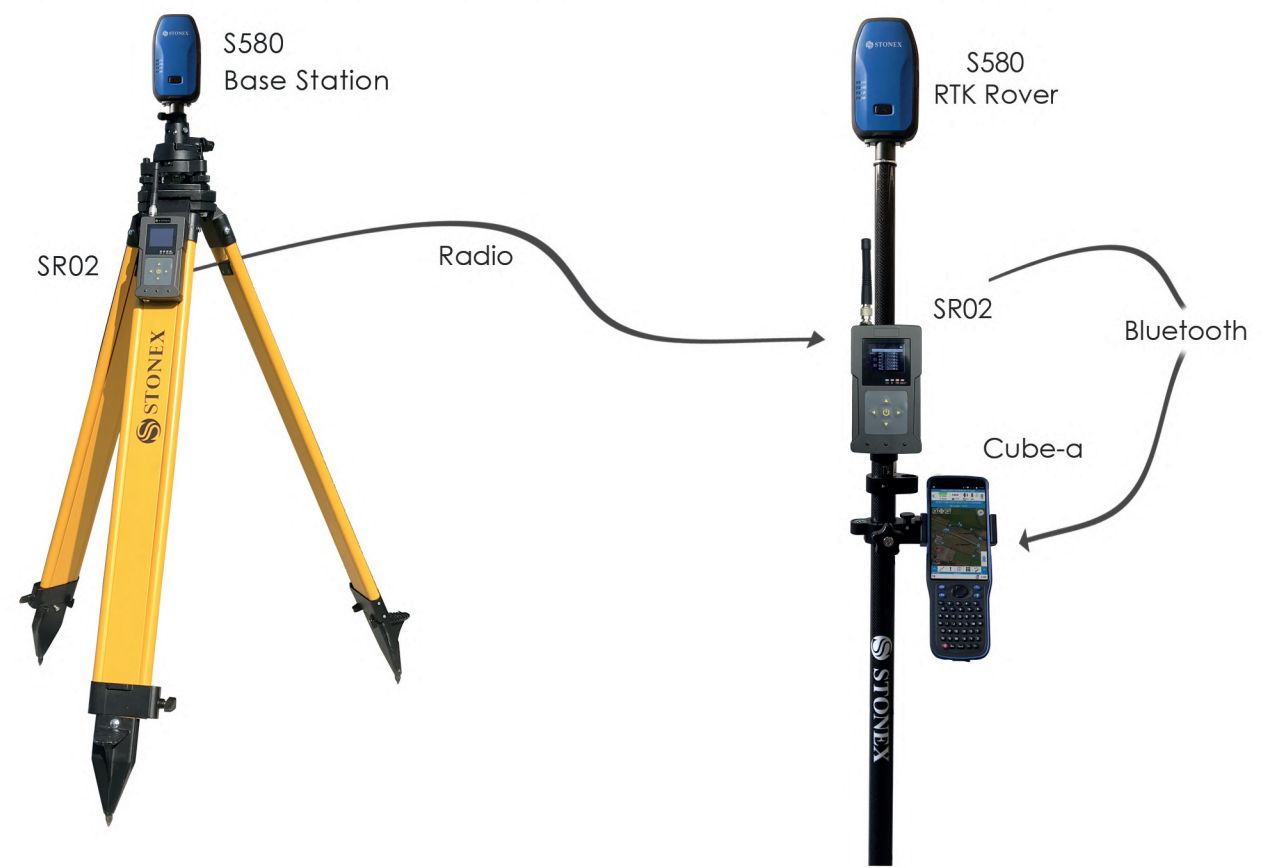
RTK AND POST-PROCESSING
S580 can work in real-time with RTK corrections and simultaneously record the raw data for post-processing.



S580 GNSS Receiver Base/Rover RTK with Radio

The S580 was designed as an RTK rover receiver to receive differential corrections from the Network. However, thanks to the external Stonex SR02 radio, the receiver can also receive RTK corrections, from a base that transmits them via UHF radio modem, in the 410-470 MHz frequencies. The SR02 external radio receives corrections from the base station and transmits them to the S580 via Bluetooth.

This feature allows the S580 receiver to receive (and transmit) RTK corrections and with this capability, the receiver can be used as base and/or as rover. This configuration is an excellent and complete low-cost solution.





Android S70

Rugged Controller for GIS

The S70 is a controller designed for GIS applications or to work together with a GNSS receiver and Total Station. It is available as a standalone rover, which can be switched freely whenever and wherever, offering maximum versatility in the system configuration to meet your specific requirements.

S70 is able to perform post-processing by combining the data of a base or reference station obtaining sub-metric precision.

ANDROID 10
8" (inches)
1920x1200 WUXGA
LTE DUAL SIM
WEIGHT 598g
IP67



SH5A

Advanced Controller

STONEX SH5A is a handy and light device, it is perfect in situations where you need to regularly use the alphanumeric keyboard.

It is an extremely light but reinforced and protected controller, suitable for working in uncomfortable environments. Its low weight makes it perfect for applications without the use of supports or with light and minimal supports. The perfectly visible but small size screen allows the device to be compact, comfortable and easy to use.

ANDROID 9.0
5" (inches)
1280x720 HD
LTE DUAL SIM
WEIGHT 350g
IP67



Android

UT32, UT12P & UT56 Rugged Tablets

UT32, UT12P and UT56 are reliable Rugged Controllers with high standards performance. These Android mobile devices are ideal for managing the survey in the field. Resistant to water, dust and shocks (IP67) they are suitable for operating even in the most difficult environmental conditions.

UT32, UT12P and UT56 are equipped with Wi-Fi, Bluetooth, NFC, GSM modem and GNSS receiver technologies.

UT32 | 8"



UT12P | 6"



UT56 | 10.1"



Our controllers together with our Android Cube-a software are modern management tools and allow you to work with maximum productivity



Windows

SRT10W & UT50 Rugged Tablets

SRT10W and UT50 are reliable Rugged Controllers with high performance. Windows 10 mobile devices are ideal for managing software applications for field survey and data collection. Resistant to water, dust and shocks (IP67/IP68) they are suitable for operating even in the most difficult environmental conditions.

SRT10W and UT50 are equipped with Wi-Fi, Bluetooth and GNSS receiver technologies. UT50 is also equipped with a GSM modem and an Ethernet port.

SRT10W | 10.1"



UT50 | 10.1"

Product Comparison



UT50

SRT10W

UT56

S70

UT32

UT12P

SH5A

Processor		2.8 GHz	1.92 GHz	2.3 GHz	1.8 GHz	2.2 GHz	2.2 GHz	2.0 GHz
Operation System		Windows 10 IoT	Windows 10 IoT	Android 10.0	Android 10.0	Android 10.0	Android 10.0	Android 9.0
RAM		8GB	4GB	4GB	4GB	4GB	4GB	3GB
Flash Memory		128GB	64GB	64GB	64GB	64GB	64GB	32GB
Display		10.1"	10.1"	10.1"	8"	8"	6"	5"
Display Resolution		1280x800	1280x800	1920x1200	1920x1200	1280x800	1920x1080	1280x720
Camera		8 Megapixel	5 Megapixel	13 Megapixel	13 Megapixel	13 Megapixel	13 Megapixel	13 Megapixel
	USB Type C	NO	NO	✓	✓	✓	✓	✓
	USB Standard	✓	✓	NO	NO	NO	NO	NO
	Wi-Fi	✓	✓	✓	✓	✓	✓	✓
	Bluetooth	✓	✓	✓	✓	✓	✓	✓
	HDMI	✓	✓	NO	NO	NO	NO	NO
	NFC	✓	NO	✓	✓	✓	✓	NO
GNSS		✓	✓	✓	✓	✓	✓	✓
RTK correction		NO	NO	NO	✓	NO	NO	NO
Connector for GNSS External Antenna		✓	NO	NO	✓	✓	✓	NO
GSM		✓	NO	✓	✓	✓	✓	✓
Change Battery		✓	NO	NO	✓	✓	✓	✓
Nr. Battery		2	1	1	1	1	1	1
Weight		1.540 g	750 g	750 g	598 g	630 g	360 g	350 g
Size		293x198x21mm	270x183x15.8mm	268x183x13.3mm	235x146x13mm	242x152x19mm	192x94x14mm	225x78x14.5mm
Operating temperature		-20°C +55°C	-20°C +55°C	-10°C +55°C	-20°C +60°C	-20°C +55°C	-20°C +55°C	-20°C +55°C
Protection class		IP68	IP67	IP67	IP67	IP67	IP67	IP67

TABLETS & CONTROLLERS

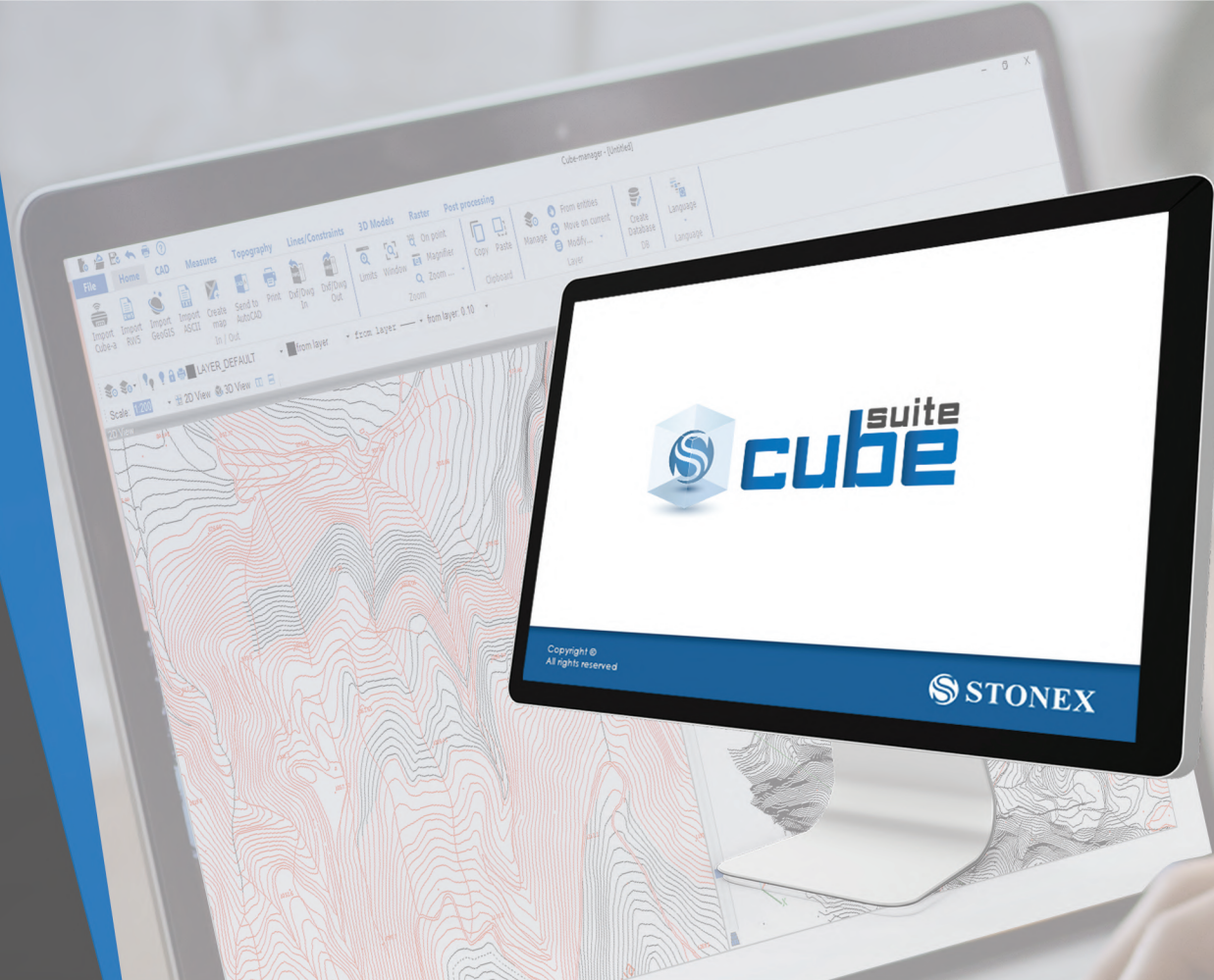


Cube Suite

STONEX complete Field & Office Software Solution

Cube Suite is the complete software solution designed and developed by STONEX for in the field and in office use.

Work in the field with the software for GNSS RTK, GIS and Total Station surveying. Work in the office with software for data transfer, graphical visualization, analytical data processing and monitoring.



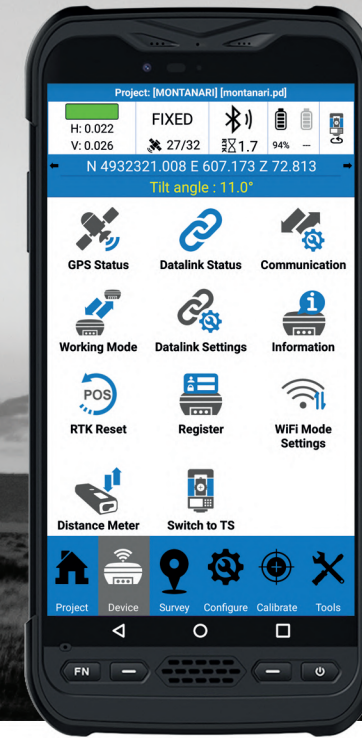


Cube-a is Stonex's solution for professional surveying and GIS which has been designed and developed for the Android platform.

Thanks to the flexibility of the Android environment, we have been able to create a simple and intuitive user interface that makes surveyors ready for any work, saving time and increasing productivity.

Full support for touch gestures and the possibility to install it on Smartphones and Tablets are the keys to the success of Cube-a. It also includes support for many languages and adjusts its interface as from the current system language setting.

Cube-a is a modular application which can be customized as needed: GNSS, Robotic and Classic Total Stations, GIS and 3D Modelling modules can be enabled to fulfill any customer need.



FIELD SOFTWARE

Cube-a | Stonex field software

Stonex field solutions for GNSS RTK and Total Station surveys will make operators' work quick and easy, ensuring high productivity in all jobs requiring precision and efficiency.

GNSS

Cube-a is compatible with all Stonex GNSS Receivers. Supports Rover, Rover Stop&Go, Base and Static modes. Various screens provide useful information on the status of the GNSS receiver including the position and the signal quality of the Atlas satellite.

SURVEY

A simple and intuitive survey interface with numerous indicators immediately helps the surveyor to understand what kind of work and in what conditions is taking place. Indicators show various information like solution status, position precision, battery levels, RTK correction delays and more. Intuitive screens allows for an easy change of settings, a view of the collected points, adding new CAD elements and drawings or proceed surveying.

PHOTO & SKETCH

To improve and complete the survey and stakeout functions, you can also use the Photo & Sketch. This function can be used while surveying or even on the already acquired points: take photos and add notes, add and position some indicating arrows or simple hand drawn sketches.

STAKEOUT

A compact interface groups all the stakeout launching commands in one screen for an easier work in the field. Stakeout screens are enriched with both graphical and analytical indicators which guide the surveyor in order to reach the target point. Thanks to this interface, you can read all the information necessary to complete the stakeout work, to select points or to add them and quickly change all settings. Even in case of small monitors, the information and commands are always smartly arranged and readable, the buttons are clickable without difficulty and some of them can be reduced to leave more space for the map.

TOTAL STATION

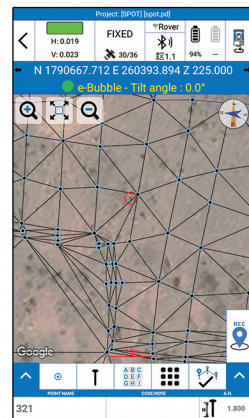
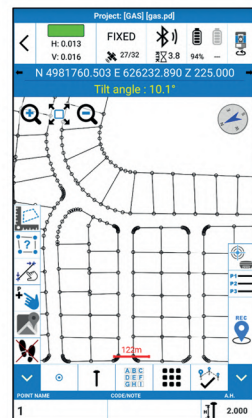
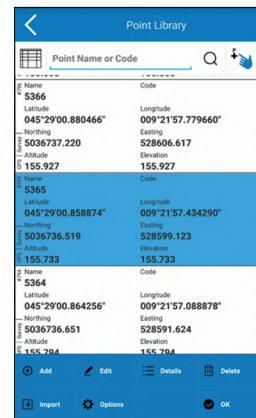
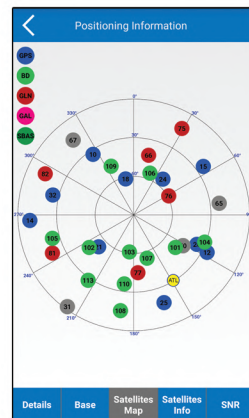
Cube-a has been designed to fully support mixed surveys. A Cube-a survey supports GPS points and classical polar stations and measures at the same time. Polar stations can be set to occupy previously collected GPS points or on unknown positions calculated using the Free Stationing program. Likewise, the GPS reference system can be adjusted to match an existing polar survey in local coordinates. Cube-a supports all Stonex Total Stations via Bluetooth.

GIS

GIS functionalities are well integrated in the workflow of standard GPS surveying. Thanks to the Cube-a's ability to collect, not only single points but also to automatically draw vectors passing through the collected points, GIS surveying becomes fast and easy. The request to fill in the GIS data is automatic and automatically follows the point or vector acquisition. Data forms can be freely defined using the integrated Feature Set designer or automatically created by Cube-a starting from a sample DBF file. Import and export of standard shapefiles ensures the compatibility and interoperability of Cube-a with virtually any other GIS software.

3D

The 3D Module adds a complete set of commands to perform Surface Modelling in real-time. Base points and constraints selection is by layer. Optional constraints include a perimeter, break-lines, and holes (non-triangulated closed areas). Surface display mode is selectable from wireframe, filled triangles with edges, shaded triangles with edges, or external perimeter with triangulated points. Volume calculations can be easily defined between a model and a horizontal or inclined reference plane. The results, as well as the surface data, can be exported to different file formats.



INTEGRATED CAD

Cube-a includes a smart and easy to use CAD feature. The CAD has been designed to work with touch displays and it allows to easily draw points and other CAD entities by mean of a smart pointer which can be moved using one finger and which always transmits to the user a strong confidence of the result achieved. The help of object-snaps like point, mid-point, end-point, intersection and others makes it possible to integrate the survey with new elements directly in the field.

Cube-manager has been developed to work on desktop computers running Microsoft Windows and it implements the tools to download, to manage and to process the data acquired with one of the mobile solutions.

Using this software, you can integrate mixed GNSS RTK and Total Station data, process Raw GNSS data in different ways, import and export the data from and to the most popular known formats.

This software will help operators providing the best functions for data transferring, graphical visualization and analytical data processing. The software is composed of various optional modules and a free version.

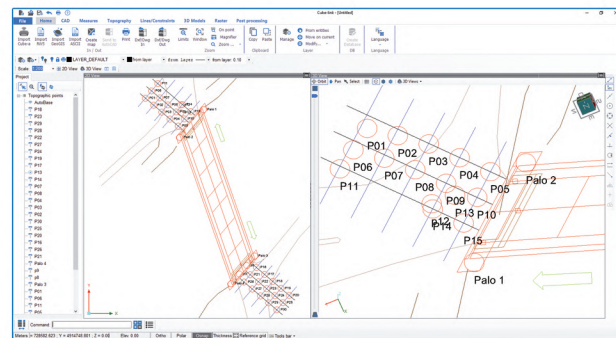


Cube-manager Modules

cube-manager

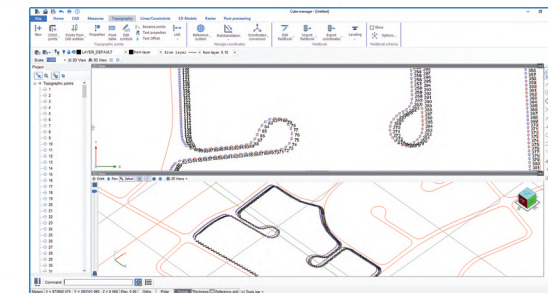
Cube-manager is a software for managing data from GNSS receivers and Total Stations, it is composed of 3 main modules (P, T, M), each one specialized in a series of functions. Among the functions shared by all the modules, you can have plano-altimetric elaborations, generate 3D models and calculate contour lines.

The measurements can be displayed in 2D, 3D and superimposed on raster, satellite or cadastral images. Through a sophisticated internal CAD, you can interact with the data using powerful and complete drawing tools and snap functions, even in 3D. Importing and exporting data are supported in various formats such as DXF, DWG, KML, CSV and others.



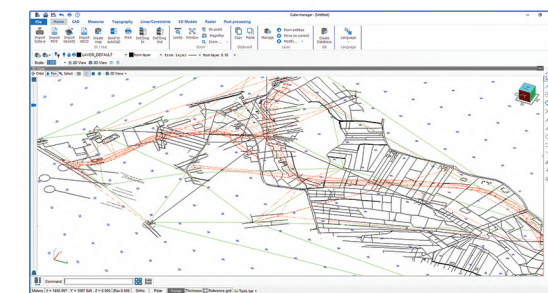
Cube-manager-p

The P is the Cube-manager's optional module dedicated to the post-processing. It offers the possibility to perform correction calculations with maximum accuracy. In addition to the basic features of the software, this module provides functions for the calculation of Stop&Go post-processing, Static post-processing for single and multiple bases, Kinematic post-processing, and least-squares Network Adjustments. Cube-manager-p is constantly updated to improve its performance.



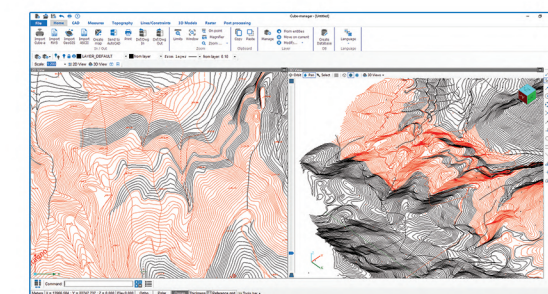
Cube-manager-t

The T is the Cube-manager's optional module that enriches and completes the topographic functions of the software. This module provides sophisticated functions of roto-translation and coordinate conversions. It enhances the management of TS surveys by integrating the traverse calculations and the 2D network calculation. It allows the georeferencing of raster images. The aim of our developers, when implementing these functions, is always simplicity and intuitive use; in addition to that, users can always make use of technical support.



Cube-manager-m

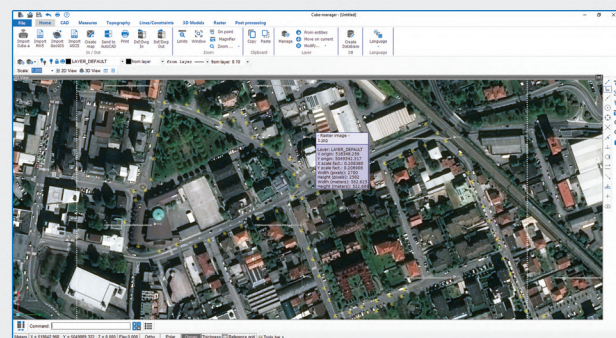
The M is the Cube-manager's optional module dedicated to modeling. This is the module designed for professionals who will work on constraint triangulations, volume calculations, contour lines, height profiles etc. In this case, the users will have all the CAD commands, COGO commands and functions on the graphic entities provided in the basic software core but will also be able to perform even more specific functions such as those mentioned above.



cube-link

Cube-link is a light and free version of the Cube-manager. The program performs many of the fundamental functions for professionals in the topographic sector.

Among the functions, it can manage TS surveys as well as GNSS surveys, with the possibility to edit the surveys by adding graphic elements. It supports numerous data formats when importing and exporting. It is constantly updated and users can take advantage of technical support.





Cube-h²⁴ is a monitoring software, it gathers information about a chosen site and allow surveyors and engineers to remotely evaluate the collected data.

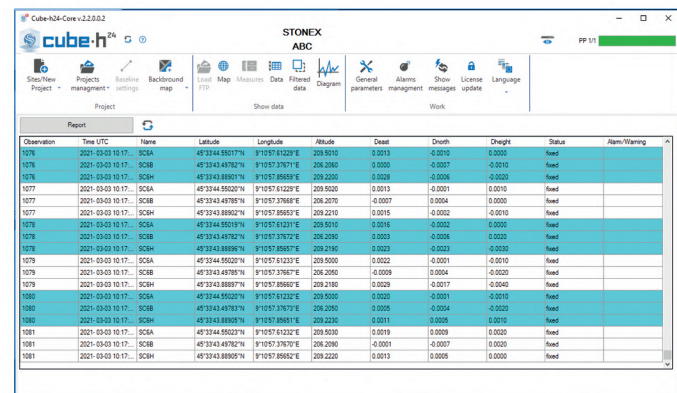
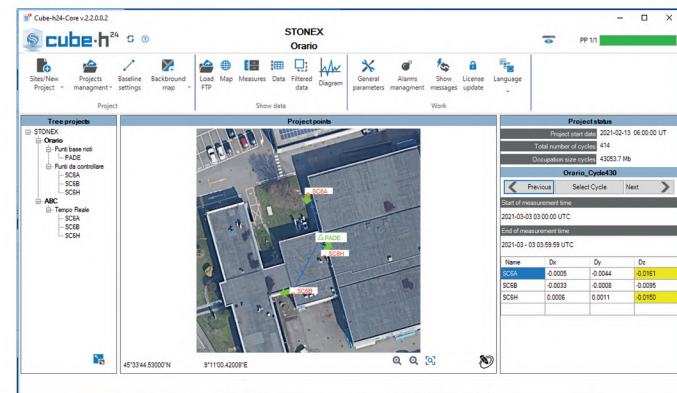
This software is developed for Microsoft Windows OS, it offers the possibility to download, manage, and process the data collected thanks to the use of one or more sensors, in the monitoring site.

The presence of a Web interface enriches the functionality of Cube-h²⁴, allowing the user to configure working parameters, check and publish the calculation results.

This software will help operators, providing the best functions for data transferring, graphical visualization, and alarm system management.



Cube-h²⁴ has been designed to control the movements of points, in natural places or artificial structures, considered to be at risk of stability. The materialization of the points is made with appropriate solutions, to ensure the sensor stability, to reach maximum accuracy with low level noise.



Pic by Doğa Elektronik



OFFICE SOFTWARE

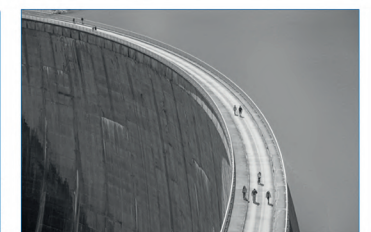
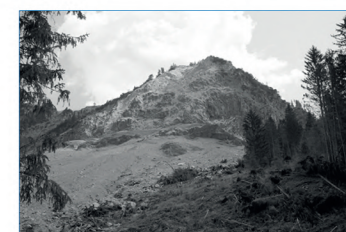
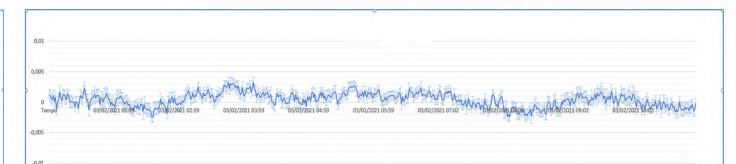
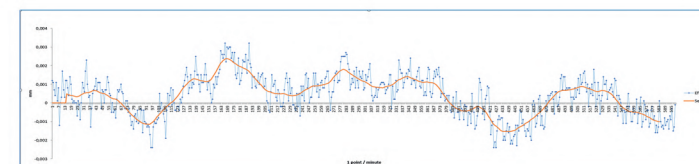
Cube-h²⁴ allows to perform all tasks necessary for monitoring jobs: from collecting the data to determinate the initial conditions, the software will be able to calculate the coordinates and variations on actual status. The program can manage multiple jobs for each site, and provide several outputs, files and charts. It manages an alarm system with a 3-level setup, and it can automatically send emails with all information from monitoring site, such as missing data or dangerous events.

Cube-h²⁴ allows to:

- Set up surveys and calculation procedures, to compare the coordinates of the points subject to control in subsequent interventions
- Check either in real time or in scheduled time the displacements of the points

Main features:

- Cube-h²⁴ is a vertical solution for monitoring
- Communication management
- Project management
- Continuous or periodic acquisition
- Graphical reports of the results
- Alerts and alarms generated in a range of critical values defined by user
- Sending log files and alerts or alarms to office by FTP or email



Total Stations

High Technology and Quality

STONEX Total Stations are simple and durable, designed and built to meet all Customers' needs, allowing easiness of use to everyone in full autonomy.

Fast, intuitive, reliable and precise, STONEX Total Stations are optical precision tools designed to support high-quality professional for all types of topographic job ensuring high performance for Surveying and Engineering.



R80
MOTORIZED



R35



R25



R20



R1 PLUS

R1Plus

The companion of every professional surveyor

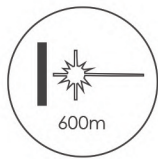
Stonex R1 Plus Total Station, precise distance and angles measurements, concentrated in 5 Kg of pure technology.

The perfect tool whenever the topographic works requires a light and fast machine, all day working thanks to 26 hours of continuous operating time.

The onboard field programs, included as standard, make R1 Plus suitable for any construction site, cadastral, mapping and staking out, works.

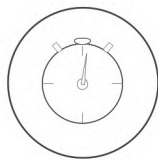
No limitation for distance measurements, up to 5.000 m with a single prism - 600 m reflectorless (KGC 90%) – and 2" as angular accuracy, always guarantee a reliable points calculation.

R1 Plus has been designed to hold out against rain and dust: the IP66 certification allows to go ahead with the survey even during hard rain. The body design is distinguished by its robust mechanical structure, and the high performance telescope, featuring 30X magnification and illuminated reticle, provide the best sighting quality in any lighting condition.



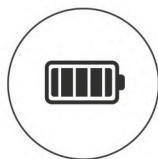
LONG DISTANCE MEASUREMENTS

Thanks to the high efficiency EDM, R1 Plus guarantees long distance measurements: 600 m in reflectorless mode and up to 5.000 m using a single prism, with millimeter accuracy.



FAST, ACCURATE, RELIABLE

Measuring distances in one second, with 2 mm accuracy, makes any job extremely cost effective and reliable. The wide range of application software allows to complete the Surveyor's tasks directly in the field.



3 DAYS OF FIELD WORK

The low power consumption circuit design and to the two high capacity batteries allow to continuously work for 26 hours and to measure over than 1.000 distances. The SD card up to 16 Gb can store an huge amount of data.



HIGH PROTECTION GRADE

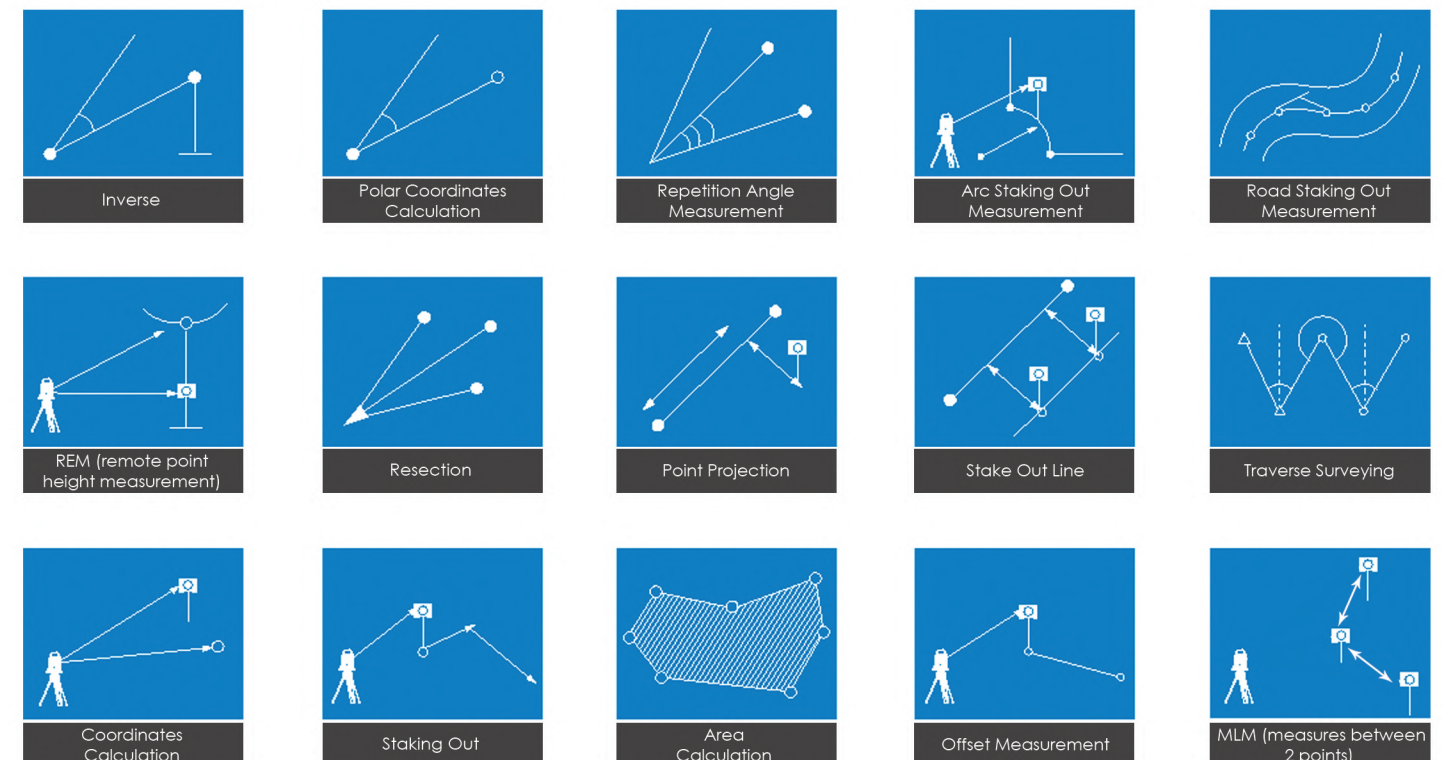
IP66 dustproof/waterproof rating ensures R1 Plus's high reliability in all weather conditions and allows to continue working even under very humid conditions and where sand and dust are present.



R1 PLUS

The most complete field software suite at your service

When the work is not limited to points collection R1 Plus becomes your portable equipment for COGO calculations and setting out of points, lines, roads. It's easy to calculate an area, the height of remote points, such as power lines and bridges, the accuracy of a traverse. More than 15 programs are available.



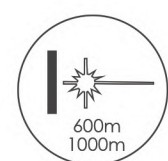
R20

Highly accurate and efficient Total Stations

The R20 range is composed of 3 versions, the R20 1000 m model with 2" angular accuracy, the R20 1000 m model with 1" angular accuracy and the R20 600 m model with 2" angular accuracy. The three models offer optimum performance up to 5000 m with prism and 1000 m or 600 m reflectorless.

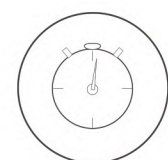
The entire R20 range is equipped with a high-performance, illuminated reticle telescope that provides the best quality of observation, whatever the environmental conditions.

The programs on board of these models of total stations make them suitable for any work in construction, cadastral, mapping and staking, through a user-friendly interface. Thanks to the presence of Bluetooth connection, it is possible to connect an external controller, giving the possibility to use a customized field software.



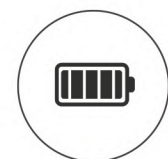
LIMITLESS DISTANCE MEASUREMENTS

By using a digital phase laser ranging technology, R20 guarantees high accuracy measurements: 1000 m or 600 m (depending on the model) in reflectorless mode and up to 5000 m using a single prism, with millimeter accuracy.



FAST, ACCURATE, RELIABLE

Measuring distances with high angular accuracy make any job extremely cost effective and reliable. The wide range of application software allows to complete the Surveyor's tasks directly in the field.



ONE DAY OF CONTINUOUS FIELD WORK

Thanks to the low power consumption circuit design R20 gives the opportunity to continuously work for more than 22 hours.



TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements. R20 monitors the changes and automatically adjusts the distance calculations.



R20

An easy and smart solution for your Survey

Whether the work is a basic survey or a stake out, R20 will always help you with a friendly interface and its intuitive field applications. The navigation menu drives the Surveyor into simple operations and the results are displayed in a clear way.



LOCK DRIVES & TRIGGER KEY

Ergonomic clamps and knobs to make target collimation fast and accurate using both the hands. Start the measure using the trigger key located on the side of the instrument.



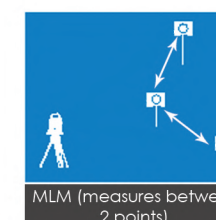
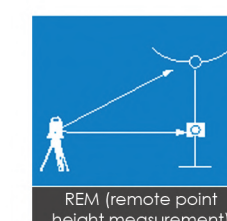
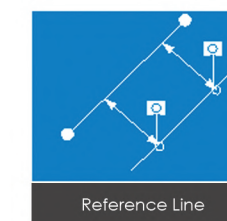
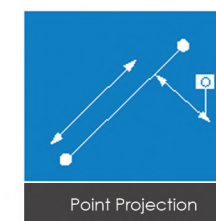
COLOR DISPLAY

R20 is equipped with 320x240 two color displays with well-designed icons which give a clear environment to the surveyor, even under full sun.



EASY CONNECTIVITY

Quick import & export of data through a USB dongle. A Bluetooth connection enables the R20 to communicate with a handheld device, giving the possibility to use a custom field software, such as Stonex Cube-a.



R25LR

High precision Total Station

High accuracy and long reflectorless range are the perfect combination that makes Stonex R25LR the best friend of every professional surveyor.

Cadastral, mapping, staking out, and up to high precision monitoring works: within the range of R25LR Series, you will find the solution that fits your needs.

R25LR comes standard with integrated onboard field software, a complete suite of applications, and an external controllers can be linked to Stonex R25LR, through the Bluetooth™ wireless connection: no limitation will stop your working process.

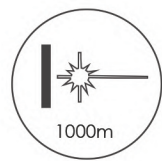
Stonex R25LR features endless friction drives for continuous horizontal and vertical rotations: no more knobs and clamps with limited movements but a more comfortable use of the station. The trigger key on the side of the instrument allows you to start the measurement very easily.



R25LR

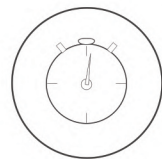
The total station with endless drives

Whether the work is a basic survey or a long road staking out under full sun, R25LR will always help you with a friendly user interface and its intuitive field software. The navigation menu drives the Surveyor into simple operations, and the results are displayed in a clear way.



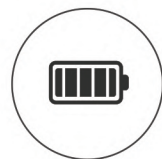
LIMITLESS DISTANCE MEASUREMENTS

By using digital phase laser ranging technology, R25LR guarantees high accuracy long range measurements: 1000 m in reflectorless mode and up to 5000 m using a single prism, with millimeter accuracy.



FAST, ACCURATE, RELIABLE

Measuring distances in one second, with 2 mm accuracy, makes any job extremely cost effective and reliable. The wide range of application software allows to complete the Surveyor's tasks directly in the field.



ONE DAY OF CONTINUOUS FIELD WORK

Thanks to the low power consumption circuit design and to the two high capacity batteries R25LR gives the opportunity to continuously work for around 13 hours. No concern for data storage: the improved 4 Gb internal memory and the SD card up to 16 Gb store a huge amount of data.



TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements: the smart R25LR monitors the changes and automatically adjusts the distance calculations.



ENDLESS FRICTION DRIVES & TRIGGER KEY

These features make R25LR one of the most manageable Total Stations of the market: target collimations are fast and accurate using both the hands and the measure starts using the trigger key located on the same side of the instrument.



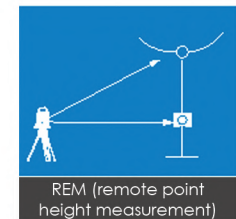
AUTOMATIC 2 AXIS COMPENSATION

The electronic dual axis compensator featuring a wide range automatically levels R25LR when it is not perfectly horizontal; the status of the compensator is shown on the graphic display allowing an accurate levelling of the instrument.



WIDE RANGE OF COMMUNICATION OPTIONS

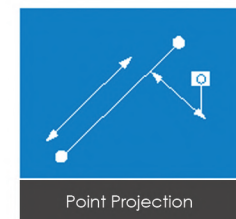
Standard RS232 interface, mini USB, SD card up to 16 Gb, guarantee a seamless in/out data flow to any external device. The wireless Bluetooth connection allows to connect R25LR with handheld computers giving the possibility to use a custom field software on line with the instrument.



REM (remote point height measurement)



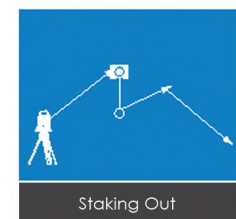
Road Staking Out Measurement



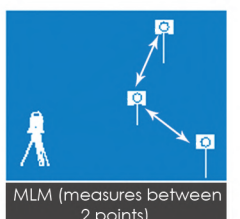
Point Projection



Traverse Surveying



Staking Out



MLM (measures between 2 points)

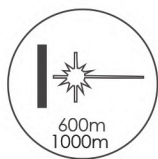
R35/R35LR Fully customizable Total Station

Stonex R35/R35LR series is the most customizable Total Station of the market. Depending on the user needs, R35/R35LR comes with endless friction drives for continuous horizontal and vertical rotations, 2" accuracy and 600/1000 m reflectorless range.

This advanced Total Station is fully customizable: each user can choose the software that best suits own needs. Several onboard software to be chosen, such as Microsurvey FieldGenius, Carlson SurvCE, ANTAS Mobile and many Custom field applications.

In addition the TFT 320x240px touch screen display on both sides gives the Surveyor a clear, colourful and fully graphical environment, and the user friendly on board software supports the users with guided through functions for data collection, topographic surveys, staking out.

The high-precision class 3 EDM featuring millimeter accuracy even on long range distances, and the absolute encoders performing high precision angles measurements, provide reliable points calculation in every condition.



UP TO 600/1000 m REFLECTORLESS

By using digital phase laser ranging technology, R35/R35LR guarantees high accuracy long range measurements: up to 600/1000 m in reflectorless mode and up to 5000 m using a single prism, with millimeter accuracy.



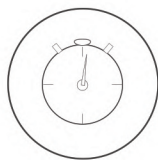
TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements: the smart R35/R35LR monitors the changes and automatically adjusts the distance calculations.



CHOOSE YOUR FAVORITE ONBOARD SOFTWARE

By choosing R35/R35LR you are not forced to use the manufacturer software! A wide range of well known field software are compatible, and the user can even create his own application onboard.



FAST, ACCURATE, RELIABLE

Measuring distances and angles in one second, with 2 mm accuracy, makes any job extremely cost effective and reliable. The big touch screen graphic display facilitates the daily work in the field.



R35/R35LR

New with endless friction drives and trigger key

R35/R35LR model has been updated with endless friction drives (no more clamps and limited HOR & VERT rotations) and with a trigger key for more accurate measurements. R35/R35LR clear 30X telescope, with illumination adjustable reticle, provides superior sighting quality in any light condition, while the coaxial laser pointer gives a safe pointing to any point.



TRIGGER KEY & ENDLESS FRICTION

These features make R35/R35LR one of the most manageable Total Stations of the market: target collimations are fast and accurate using both the hands and the measure starts using the trigger key located on the same side of the instrument.



WIDE RANGE OF COMMUNICATION OPTIONS

Standard RS232 interface, USB, mini USB, guarantee a seamless in/out data flow to any external device. The wireless Bluetooth connection allows to connect R35/R35LR with handheld computers giving the possibility to use a custom field software on line with the instrument.

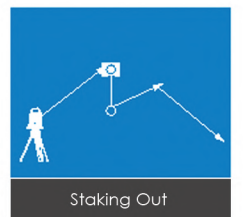


2 SIDES TOUCH SCREEN DISPLAY

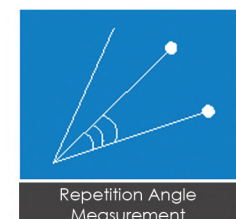
The clear TFT 320x240px 2 sides touch screen display gives the Surveyor a clear, colourful and fully graphical environment, and the user friendly on board software supports the Surveyor with guided through functions for data collection, topographic surveys, staking.



Coordinates Calculation



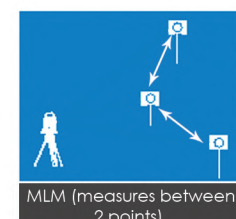
Staking Out



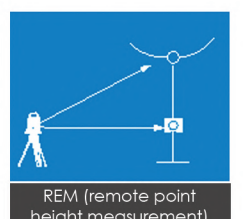
Repetition Angle Measurement



Offset Measurement



MLM (measures between 2 points)



REM (remote point height measurement)

R80 The best 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.

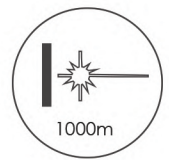
This advanced Total Station runs Windows CE 7.0 operating system and users can choose the software that best meets their needs. It supports also SDK and external control protocol for software developing.

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.



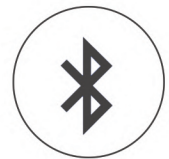
HIGH PRECISION SURVEYING

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.

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

OnePole



Product Comparison



R1 Plus



R20 600 m



R20 1000 m



R25LR



R35/R35LR



R80

Angle Accuracy	2"	2"	1" / 2"	2"	2"	0.5" / 1"
Prism measurement	5.000 m	5.000 m	5.000 m	5.000 m	5.000 m	5.000 m
Prism accuracy	2 mm + 2 ppm	2 mm + 2 ppm	2 mm + 2 ppm	2 mm + 2 ppm	2 mm + 2 ppm	1 mm + 1 ppm
Reflectorless measurement	600 m	600 m	1000 m	1.000 m	600 m / 1.000 m	1.000 m
Reflectorless accuracy	3 mm + 2 ppm	3 mm + 2 ppm	3 mm + 2 ppm	3 mm + 2 ppm	3 mm + 2 ppm	3 mm + 2 ppm
Display	2 LCD	2 Color	2 Color	2 LCD	2 Color touch	2 Color touch
OS	Proprietary	Proprietary	Proprietary	Proprietary	Windows CE	Windows CE
Bluetooth	NO	✓	✓	✓	✓	Long Range
USB mini	✓	NO	NO	✓	✓	✓
USB/SD card	SD card	USB	USB	SD card	USB	USB
RS232	✓	NO	NO	✓	✓	✓
Memory	120.000 points	> 80.000 points	> 80.000 points	4GB	4GB	4GB
Guide light	NO	NO	NO	NO	✓	✓
H-V movements	Lock drives	Lock drives	Lock drives	Endless drives	Endless drives	Motorized
Operation time	26 hours	22 hours	22 hours	12 hours	9 hours	6 hours
Weight	5.1 Kg	5.6 Kg	5.6 Kg	6.0 Kg	6.1 Kg	7.9 Kg
Operating temperature	-20°C +50°C	-20°C +50°C	-20°C +50°C	-20°C +50°C	-20°C +50°C	-20°C +50°C
Protection class	IP66	IP54	IP54	IP55	IP55	IP55

TOTAL STATIONS

Radio

RADIO MODEM 35W

- Power from 5 to 35W
- Frequency range 410-470MHz
- Bluetooth
- TX/RX/Transceiver
- GNSS integrated
- Bridge functionality
- Protocols Trimtalk/Trans EOT/Trimmark/Satel
- Modulation GMSK/4FSK
- Channel spacing 12.5KHz/25KHz
- Display screen
- Android APP for management
- Configuration Software
- Distance covered up to 50 Km

SR35



SR02

RADIO MODEM 2W

- Power from 0.5 to 2W
- Frequency range 410-470MHz
- Bluetooth
- TX/RX/Transceiver
- Protocols Trimtalk/Trans EOT/Trimmark/Satel
- Modulation GMSK/4FSK
- Channel spacing 12.5KHz/25KHz
- Internal battery 6800mAh
- Operating time up to 8h
- Display screen
- Distance covered up to 10 Km
- Configuration Software

Theodolite & Auto levels

STT402L



STT402L offers the opportunity to challenge high precision monitoring and engineering works. Thanks to its absolute encoder, angle measurements are saved when STT402L is switched off.

Low power consumption gives more than 80 hours working time. Unlike other instruments that use only AA battery, STT402L offers the options to use the Li-Ion rechargeable battery or standard AA battery. The dual axis compensator with 1" accuracy ensures reliable measurements on every kind of terrain.

STAL 1000/1100



STAL 1000/1100 Series autolevels are immediate to set up and use.

The accuracy of up to 1 mm/Km (double stroke leveling) of the STAL series autolevels makes them perfect tools for monitoring and engineering work.

Horizontal knobs with an unlimited range ensure precise pointing while the circle, graduated in DEG or GON, gives angular measurements.

A30



Stonex brings the benefits of Auto Level to construction applications at an affordable price with the reliable, easy-to-use A30 Auto Level.

The Stonex A30 Auto Level minimizes human error and maximizes the ease of levelling work, allowing increased productivity and performance.

In few seconds height difference and distance can be measured.

A30 guarantees high accuracy with ± 1.5 mm standard deviation of 1km round-trip leveling measurement.



Laser Scanner & 3D

3D scanning everywhere

STONEX Laser Scanners are the best solution for any application, balancing economic efficiency and highly accurate outputs.

The sealed external case of all our scanners allows you to operate in dusty and humid environments, where others fail. Perform field surveys with our tools and process the data in an office with our software.



X300



X150



XH120



F6

XH120 Fast & Efficient

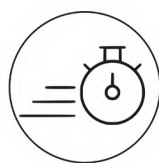
Handheld 3D Scanner

XH120 is an handheld laser scanner based on newest STONEX SLAM technology.

This powerful scanner allows easy and fast capture of 3D models indoor & outdoor eliminating the need of collecting tens of scans from various stations and of complex multi-cloud registrations.

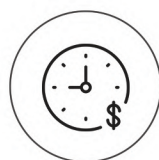
Just move around the scene with XH120 and see the point cloud growing as more data is added in real time.

Boost your productivity reducing on site capturing time and post processing workload.



RAPID SCANNING

No more multiple scan stations, just move around the scene and collect in minutes the entire 3D point cloud.



REDUCED WORKLOAD

No more tedious and time-consuming cloud to cloud alignment, download the full data right after the capture.



STONEX SLAM TECHNOLOGY

Best in class sensors and real time processing: more range, more speed, more resolution, greater field of view, more reliability.



FLEXIBILITY

Combine indoor & outdoor data, even in the most demanding environments.



REAL TIME

See your scanning progress in real time and control XH120 with your tablet or smartphone.



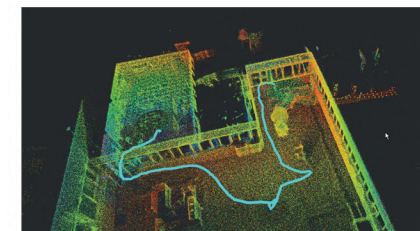
SLAM TECHNOLOGY

Simultaneous Localization And Mapping

STONEX SLAM technology delivers more range, more points per second and best in class on board processing algorithms to reach unmatched speed of capture and reliability even in the more demanding environments.



Offers the newest SLAM technology to deliver clear Real Time point cloud visualization and precise Post Processing optimization. User parameters adapt the algorithms to the environment and fine tune the required precision, while in conjunction with XH120 Manager additional features can be managed: control points, video tagging, photo tagging, intensity scaling, and more.



Accessories

BACKPACK

Rugged Hard carry & scan backpack



TROLLEY

4 wheeled cart trolley cart with extensible pole (3mt.)



INSPECTION POLE

Carbon Fibre extensible pole for cavity inspection (up to 12 meters)

ACTION CAM SUPPORT

Action cam support for photo & video tagging into the point cloud



X150 *Tough & Light*

Robust and easy-to-use Laser Scanner

X150 is a robust and easy-to-use scanner for quick surveys up to 150 m.

The multi-line full dome Lidar technology allows computing 3D models for a wide range of applications.

A perfect tool for fast topographic grade surveys and indoor floor maps.

Point clouds can be obtained from the X150 scanner in .las format, which can then be registered with Stonex Reconstructor or imported into third-party software.



STRONG CASE

Streamlined aluminum alloy case.



SMALL AND LIGHT

The scanner can be easily used by a single person thanks to its small size and weight of approximately 4 kg.



SELF CALIBRATING

± 5 degrees tilt supplement angle for precise leveling. A 360° one-stop scan requires only 45s.



PANORAMIC HDR CAMERA

Add colour to your scan.



WIRELESS CONTROL

Through the dedicated APP it is possible to control the device remotely. Scan with one click and check quality via real-time preview.



APPLICATIONS

X150 is the perfect instrument for efficient and precise work in a wide range of applications:

Land & Excavation

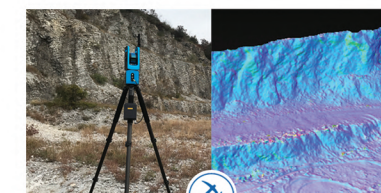
Terrain Elevation Models, Volume calculation, Tunnels, Profiles and Contours.

Architecture & Real Estate

Floor plans, Sections, facade scanning.

Emergency Management

Assessment and support of Emergency Response Planning.



FAST SCAN & DOWNLOAD

Download your data with fast wired connection, or save them in SD Card.

Post-processing begins right after field work!



Wired connection



SD Card slot

Accessories



SCAN-UP

Handy telescopic steel lift with manual lift. (up to 5 meters)

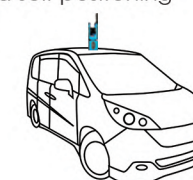


TROLLEY

4 wheeled cart trolley cart with extensible pole (3mt.)

STOP&SCAN

Car top system for road mapping; auto levelling and self positioning



X300^{New}

Simple, tough,
accurate

The right tool for your daily work

Stonex X300 is a 3D Laser Scanner designed to provide accurate data every time and for any project.

The ease of use, reliability, flexibility and price make X300 a highly competitive product, now further improved with new features.

The X300 File Manager tool allows you to convert the data collected with the X300 Laser Scanner into Stonex Reconstructor file format or other standard formats.

The files obtained can be used directly in third party software, such as CAD, forensic analysis or road accident analysis.



RUGGED DESIGN

The fully sealed case protects your investment making it possible to get the job done where others fail, regardless of dust, humidity, heat or bumps.



EASE OF USE

Push one button and control X300 with your smartphone or tablet. Laser scanning has never been easier.



PRICE AND QUALITY

X300 balances the performance you really need in a wide range of applications with a reasonable price.



HQ CAMERA

Sony 16 Mpx sensor, low distortion lens with HDR. Brilliant coloration and wide tonal range.



COMPLETE CONTROL

Full Camera Control: Exposure, gain, white balance...



PERFORMANCE

Range: 1.6 – 300 m, 100% reflectivity (on white)

Field of view: Horizontal: 360° (full panoramic)
Vertical: 90° (-25° to +65°)

Scan rate: Up to 60000 points/sec

Laser beam divergence: 0.076° x 0.029°

Grid spacing: 39 mm x 39 mm @ 100 m

Angular resolution: 1.35' (O) x 1.35' (V) (at max resolution)

Range accuracy: < 5 mm @ 50 m - (1 sigma)

Accessories

MONITORING KIT 4.0

External Power Supply with Ethernet cable control to operate remotely the scanner in monitoring projects.



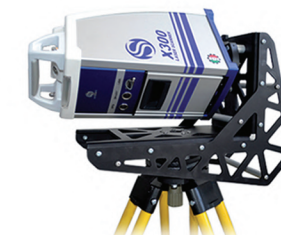
GPS KIT

Kit designed to connect the GNSS receiver to the X300 Laser Scanner. The easiest way to georeference your 3D data.



X300 FRAMEWORK

Expand the field of view and scan ceilings and tunnels.



F6 3D handheld scanner

Volumetric Scanner for Field Use

Stonex F6 is the market leader 3D handheld scanner for fast scanning.

With Stonex F6 you can scan big objects and large areas from short to far ranges.

The F6 is designed for accurate and fast scanning of highly detailed small objects, positioned in close proximity.

Based on a patent algorithm of innovative encoding F6 provide superb quality of data making them the ultimate devices for scanning complex scenes within seconds.



F6 Handheld Scanner

3D Volumetric Scanner for Field Use

STONEX F6 is a market-leading 3D Portable Scanner for fast scanning of medium to large objects.

The fields of application of F6 are many: archeology, architecture, cultural heritage, facilities management and forensic investigations.

Stonex F6 is managed by Echo, an easy-to-use integrated software with advanced features such as:

- Scanning mode with real-time feedback
- Powerful 3D data editing tools
- Advanced texture meshing
- Composition of models from different scans
- Multiple interfaces: tablet / laptop / VR



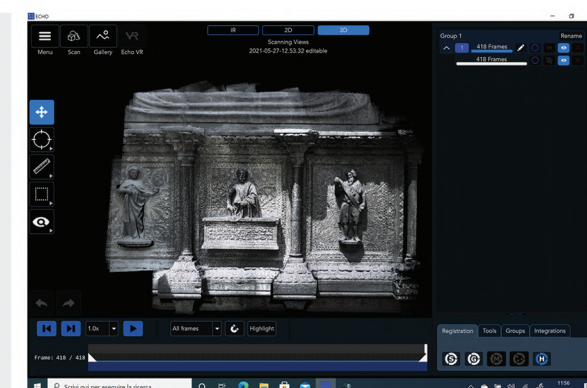
PERFORMANCE

Range: 0.5 – 4.5m

Field of view: HxW 510 x 670mm, closest range
HxW 4585 x 6070mm, furthest range

Max points per frame: 80,000

Data acquisition speed: 640,000 points/s



Advantages

- IR light: allows you to work in any lighting condition, from complete darkness to daylight
- Accurate and fast
- Ergonomic handle
- No scene preparation: the geometry is deciphered by the encoding
- 2-level operating mode: static and dynamic
- Accessibility to hidden places
- Hot shoe connection:
 - Wireless synchronization of multiple F6 Scanners for the acquisition of objects in dynamic movement
 - Flash or continuous light
- Easy to use: professionals will be able to manage the system with ease after a brief training
- Unique and lightweight design

Requirements for Computer / Tablet*:

- Win 8.1 Pro and later versions
- i7 quad processor
- 16 GB memory
- 256 GB storage memory

* not included



3D Software

Powerful software at your disposal

Stonex Reconstructor and Cube-scan are powerful desktop software for Point Cloud data processing.

Point Clouds can be imported, filtered, registered, edited, using a wide range of tools.

Usability, straight forward User Interface and a powerful 3D engine allow to handle the most complex projects and to easily extract information, such as: basic measures, elevations, areas, contour lines, orthophotos, flythrough videos, and more. All that outcomes can be exported and used in your own software.

They can import Stonex proprietary point cloud format as well as most common 3D data formats and they can combine models from different sensors, by using a variety of registration tools.



LASER SCANNING SOLUTIONS

Cube-scan Easy to use and versatile

Cube-scan is part of Stonex Cube-suite.

Easy to use and learn, it allows basic 3D workflows. Import point clouds from Stonex scanner or different sensors and clean them through selection tools.

Align the point clouds by choosing from a variety of registration modes.

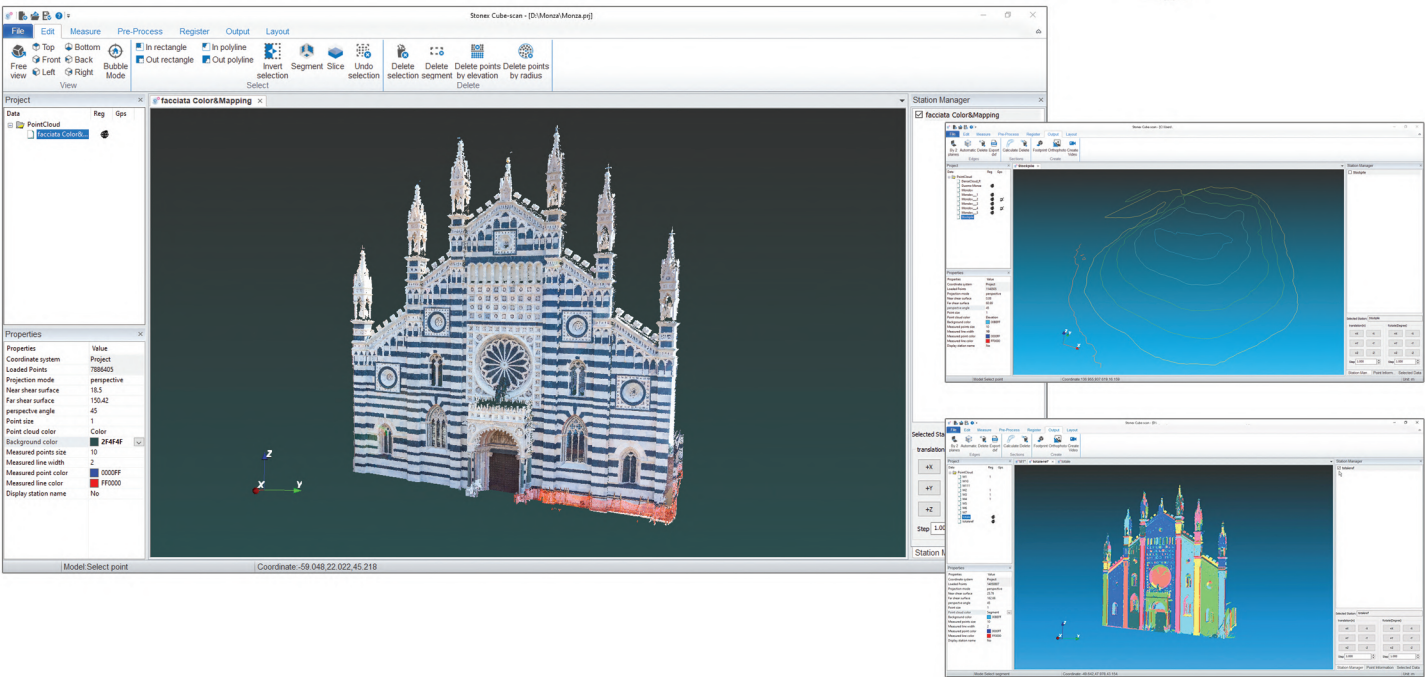
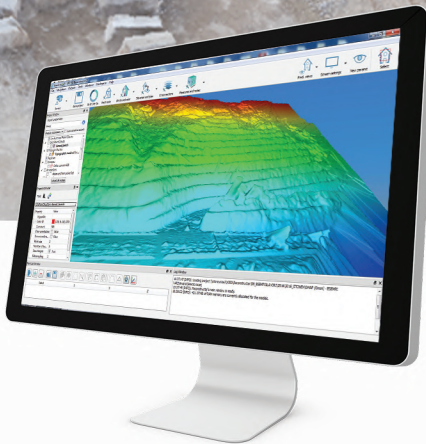
Export registered point clouds to work with your own software or process measures, contour lines, edges and orthophotos.



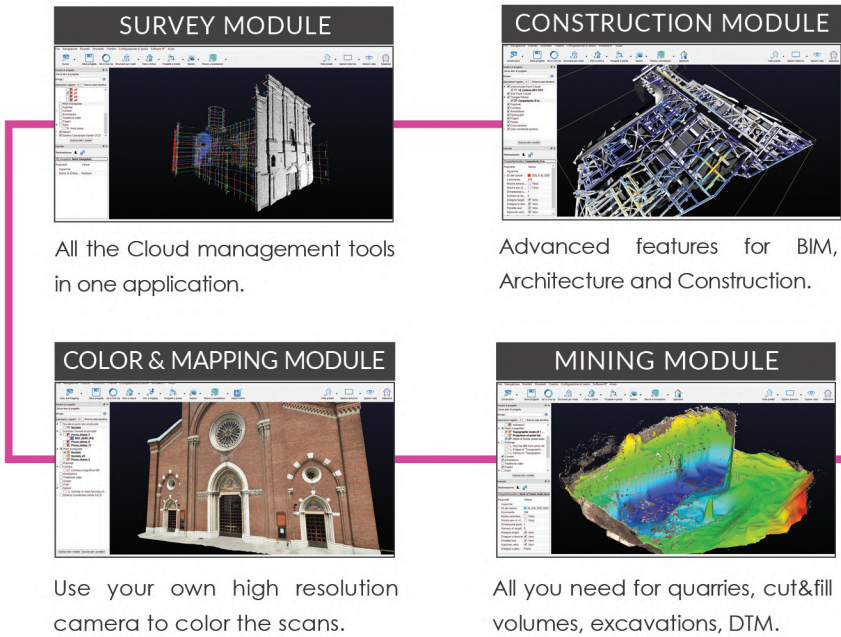
STONEX RECONSTRUCTOR Powerful and usable 3D Software

The Stonex Reconstructor software allows you to manage and align point clouds acquired through laser scanners or other sensors, such as the Stonex F6 handheld scanner, clouds produced by photogrammetry and in general any point cloud.

Complete and clear workflows will guide you during the processing and the expandable modules are able to meet different needs, covering many fields, such as: surveying, mining, construction, architecture, cultural heritage, BIM, galleries etc.



MODULES



MAIN FEATURES

- POINT CLOUD ALIGNMENT
- FILTERING
- MESH AND DTM
- COLOR MANAGEMENT
- COMPARISON OF 3D MODELS
- PLANARITY / VERTICALITY
- ORTHOPHOTO
- SECTIONS, CONTOURS AND PROFILES
- AREA AND VOLUME
- MEASUREMENT
- CAD EXPORT
- UAV INTEGRATION



Cube-3d is a Photogrammetric software for mapping and aerial image processing, dedicated to land surveying specialists. It will transform image data into highly accurate digital maps and 3D models with extreme precision. It imports Cube-a surveys and is fully compatible with registered Stonex scans and with any third-party 3D models.

It is possible to draw on point clouds or meshes and merge data imported from traditional survey tools, all in a single software. The data can be then processed and enhanced thanks to the various CAD tools. Among the many features available, most appreciated are the automatic classification, orthophoto, cross-sections and profile lines, volume calculation, and more.

Licenses configuration is very flexible, from perpetual to temporary subscription, it adapts to the needs of many professionals.

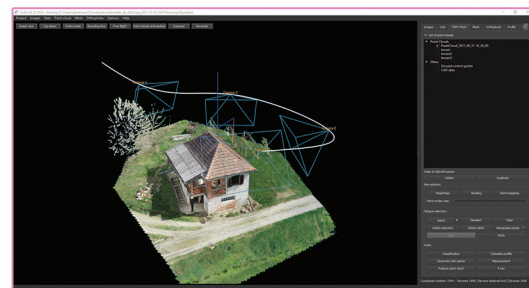


Import and Data Processing

3D POINT & DIGITAL SURFACE GENERATOR

The program can process, in a single project, images captured by any handy camera, UAV drone, or multiple-camera and create extremely accurate and detailed high-definition 3D models.

It can generate a fully geo-referenced, spatially orientated, and complete overview of your site configuration.



WIDE RANGE OF IMPORT OPTIONS

Without selecting a reference system or entering details on the formats used, Cube-3d can receive data directly from Cube-a, with the settings defined in the latter, and use them, for example, as a control point for georeferencing the models.

It is possible to import point clouds from lidar, laser scanners, and without limitation from any tool capable of generating them. The compatibility of this software with all standard formats, used in traditional surveys, will be of great help to professionals.

NEVER-FAILING ORIENTATION



Cube-3d automatically detects both GCPs and detail points, allowing the operator to check the position of the detected targets, in the first step of the orientation.

With Stonex targets, the time needed will be even shorter, centering is immediate. Even working with RTK drones, it will be easy to achieve centimeter accuracy without GCP.



Functionalities

CLASSIFICATION

Benefits from an industry-leading classification engine with best-in-class point cloud customization tools that give users fast, easy-to-use, and simple data classification.

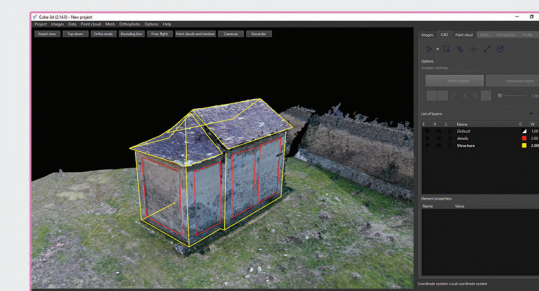
ORTOPHOTO

It allows to calculate high-resolution, traditional and true, digital orthophotos with cm-grade precision in perfect geo-referenced details. The X-ray feature helps to see through the rooftops, so drawing building walls and similar features on a survey map will be much easier.

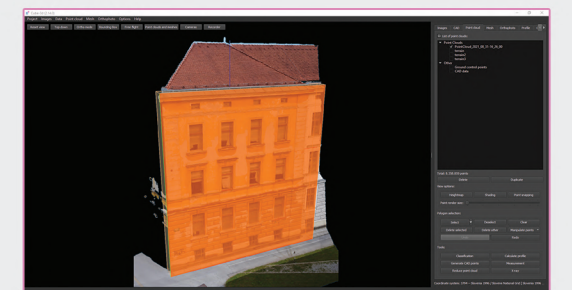
CROSS SECTIONS, PROFILES & CONTOUR LINES

From point cloud data, it will draw a definition line and calculate single vertical cross-sections or multiple transverse profiles with user-defined intervals.

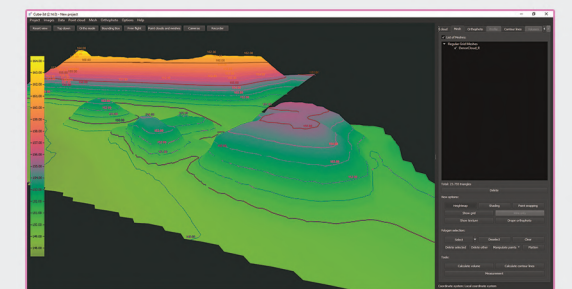
Or it can instantly create topography maps, and freely explore terrain elevation data in 2D or 3D, thanks to the automated contour lines calculation.



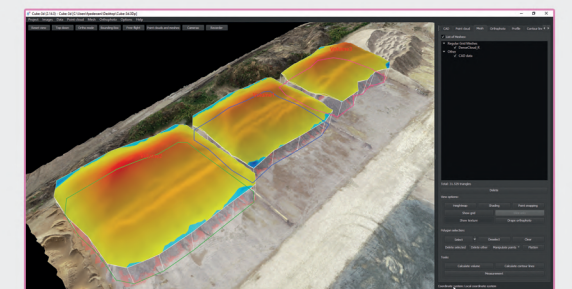
CAD



ORTOPHOTO



CONTOUR LINES



VOLUME CALCULATION

CAD ENGINE

Integrated CAD functions give you the power to work on your project with a complete layer system, snapping tools, drawing options and measurements. No need of any further third-party CAD software.

Product Comparison



X300 New



X150



XH120



F6

Type	Tripod - Lidar	Tripod - Lidar	Handheld Lidar SLAM	Handheld Structured Light
Range	1.5 – 300 m	0.2 – 150 m	0.2 – 120 m	0.4 – 5 m
Accuracy	5 mm	Up to 1 cm	Up to 1 cm	1 mm
Pts/sec	60.000	320.000	650.000	560.000
FOV	90°x360°	280°x360°	360°x360°	54°x68°
Nr. Battery	2 replaceable	2 replaceable	2 replaceable	1 integrated
Memory	32GB	250GB + 128 TF card	500 GB (expand.)	-
Bluetooth	-	√	-	-
WiFi	√	√	√	-
Ethernet	√	√	-	-
USB	√	Micro	√	√
Dimensions	21x17x43 cm	36x13x14 cm	12x20x11 cm	32x12x4.5 cm
Weight	7 Kg	4 kg	2 Kg	1 Kg
Operating Temperature	-10°C +50°C	0°C +50°C	0°C +50°C	-10°C +50°C
Color	Integrated	External	External	Integrated
GPS	Optional	-	-	-

LASER SCANNERS



Special Projects

Customized Solutions for high precision works

Our world demands technologies that are able to monitor and assure the correct workflow to get the job done quickly and correctly.

STONEX Special Project team, has a deep knowledge in developing tailored solutions, in order to improve the jobsite productivity keeping in first place the operators' safety. With Special Project Solutions the job site will be lived like a new comfort zone from all the actors: from the operators to the supervisors.

Our fields of application are: smart farming, solar sector, marine sector, construction & road, mining & drilling, fleet management.



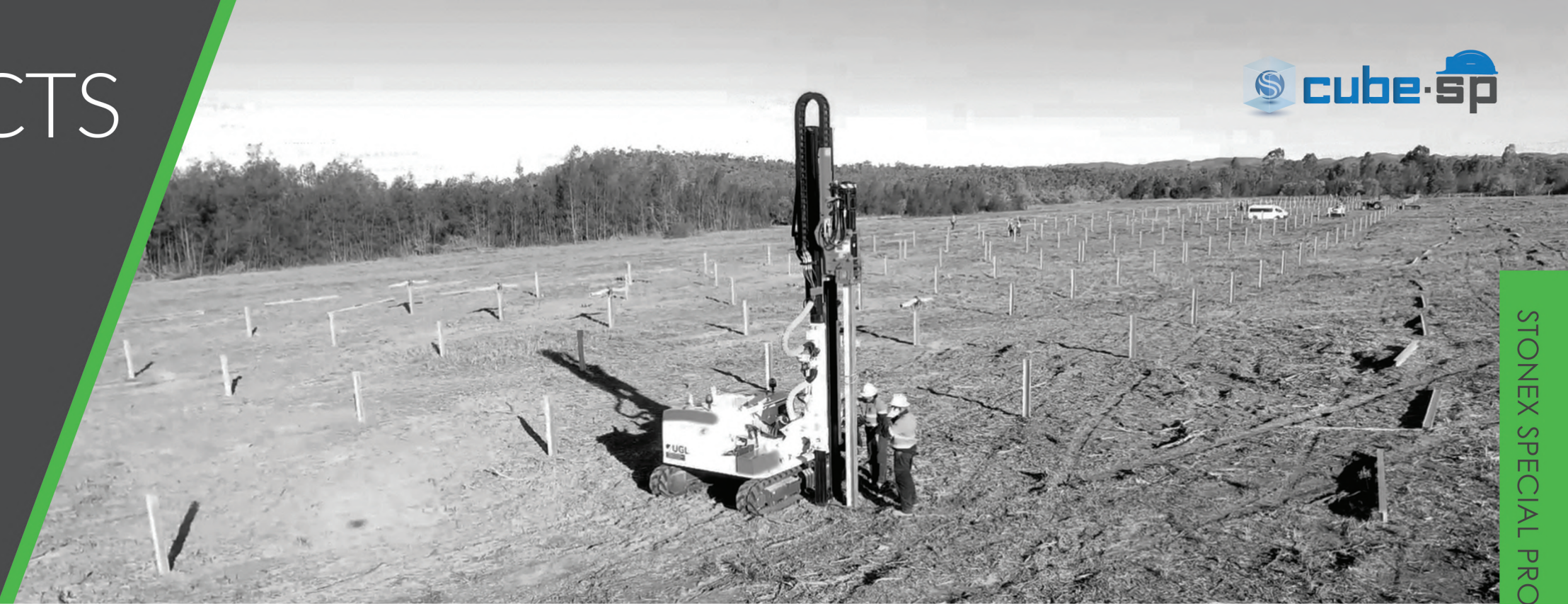
SPECIAL PROJECTS

SOLAR FARM

Stonex positioning technology provides excellent performance in the photovoltaic sector, supplying a solid solution to operators.

The main solution (GPS + tablet + software) is able to process large surveys and create projects quickly; the quality of the work is ensured by the correct interaction between the sensors and the software.

The solution offers different degrees of automation for the pile driving process, to meet the customer's needs and reducing working time.



PROJECT AND DESIGN

The Project can be generated, importing the local coordinates from different formats (DXF, TXT). A TARGET POINT file will be produced for the GPS navigation purpose.



SURVEY STAKE-OUT

Quick and smart stakeout GPS solution made for any kind of operator. A clear guidance layout aids the operator to find the post position with centimetres accuracy.



MACHINE GUIDANCE

Our solutions fit on any kind of piling machines and drive the operator on the target point (post coordinates) in manual and automatic mode.



AUTO LEVELLING

A slope sensor with an hydraulic interface can be installed on any machine in order to assure always the best levelling accuracy of the mast along two axis.



ROI

Adopting Stonex solutions means reducing production costs. Less operators with high productivity.



ANDROID SOFTWARE

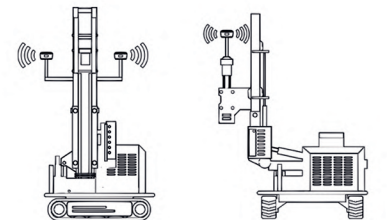
Software solutions that work with Android system.



GPS satellite technology for solar farms

Stonex Special Projects division has designed two solutions for the solar world:

- STX-SF-SUITE
- STX-SF-PUSH & PULL



STX-SF-SUITE

STX-SUITE is a solution for the design of a photovoltaic system and the accurate positioning of the support poles on site. It provides for the automation of the pile driving process, reducing work times and improving the accuracy of the result.

STX-SF-PUSH&PULL

This solution is designed to test the tightness of the stakes. It is a push and pull validation test.



1 Tablet + Software



2 Sensors



3 GNSS Antenna



4 GNSS Receiver



SPECIAL PROJECTS

MINING

Stonex has developed simple and intuitive operating solutions to allow operators the correct positioning of the machines. Traditional staking of points is an integral part of our solutions.

To facilitate the exchange of information between operators, the solutions consist of a part dedicated to the Office and a part dedicated to field work.

Office and field can communicate thanks to the use of a Cloud platform where they can easily share data, projects and information.



PROJECT AND DESIGN

The Project can be generated, importing the local coordinates from different formats (DXF, TXT). A TARGET POINT file will be produced for the GPS navigation purpose. The Project coordinates include the depth and the tilt information.



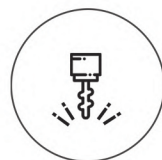
MONITORING ACTIVITY

Thanks to a remote connection it is possible to monitor the progress of the work and update the projects in real-time.



MACHINE GUIDANCE

Manual positioning of the probe on the post is no longer required, the operator is guided directly to the designated drilling spot in a precise, easy and faulty-free way.



VISUALIZATION AND STORAGE

Thanks to our solutions it is possible to assess and store the position of the drilling point.



ROI

Adopting Stonex solutions means reducing production costs. Less operators with high productivity.



ANDROID SOFTWARE

Software solutions that work with Android system.



Satellite technology for high precision mining operations

Stonex Special Projects division has designed three solutions for the mining world:

• STX-MI-DRILL

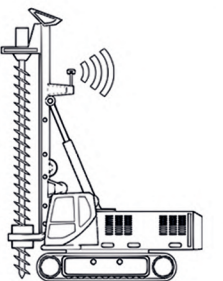
STX-MI-DRILL is a GPS guidance system for jet grouting capable to determine the correct planimetric position of the columns, the verticality of the drilling tower and the deviations from the designed coordinates.

• STX-MI-DIGWHEEL

STX-MI-DIGWHEEL is a system for guiding and positioning digwheel machines for the construction of quarries or tunnels.

• STX-MI-TSDRILL

STX-MI-TSDRILL is a system for guiding and positioning drills for the construction of quarries or tunnels with the support of a robotic total station.



1 Tablet + Software



2 Sensors



3 GNSS Antenna



4 GNSS Receiver



SPECIAL PROJECTS

AGRICULTURE



Stonex offers numerous solutions to meet the needs of the agricultural world.

Our solutions for smar farming provide the ability to easily plan, schedule and manage jobs. Our receivers reach high levels of precision, becoming largely usable for jobs related to precision agriculture.

The solutions consist of hardware and software; moreover, they adapt to different types of machines becoming easily adaptable to the client's needs.

The goal is to improve the quality of work and reduce the stress of workers, supporting them in all those activities that require great precision. The simple and intuitive interface the allows for a fast workflow.



STONEX SPECIAL PROJECTS



PROJECT AND DESIGN ON THE FIELD

Design the planting layout directly on the field thanks to the integrated design software.



SURVEY STAKE-OUT

Adapt the planting layout to the elevation profile of the field. Smart stake-out with auto-lock.



MACHINE GUIDANCE

Easy guide of the tractor over the designated points following the direction provided by the display.



HIGH ACCURACY

High accuracy positioning of the plant shoot.



ROI

Adopting Stonex solutions means reducing production costs. Less operators with high productivity.

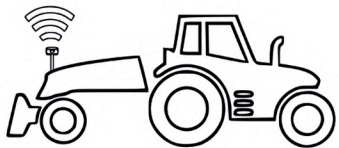


ANDROID SOFTWARE

Software solutions that work with Android system.



GPS technology for smart farming



Stonex Special Projects division has designed several solutions for smart farming:

• STX-AG-MAP

Solution for the precision calculation of the area of a parcel, the localization of a specific area of the territory and the creation of precise maps.

• STX-AG-PLANT

Solution for stakeout, design and creation of plantations/vineyards, usable both manually and on machines.

• STX-AG-POLE

Solution for the design and driving of poles in a field /vineyard that allows to reduce time and work stress, as well as to increase the accuracy.

• STX-AG-LDRONE

Mission planner for ground drones with precision positioning.

• STX-AG-AGRI

Smart farming solution, suitable for planning jobs and providing precise information to the operator in the field.

• STX-AG-TRACK

System for the management of the tractor fleet, the planning of the works and the connection between the office and the field.

• STX-AG-NAV

Solution for driving agri machines along a previously predefined path.

• STX-AG-DRAIN

Field drainage positioning and guiding solution.



1 Tablet + Software



2 Sensors



3 GNSS Antenna



4 GNSS Receiver



SPECIAL PROJECTS

MARINE

Stonex offers flexible, high-performance positioning systems to meet the unique needs of marine construction on both simple and complex projects.

Our solutions include both hardware and software, and can be easily integrated into third-party systems. Improve productivity and efficiency in underwater marine construction applications including dredging, crane operations, piling and hydrographic survey.

Our solutions are suitable for dredging operations, canal/port development, reclamation, breakwaters and navigation systems.



REAL TIME VISUALIZATION

Real-time visualization of the system related to the design in plant, profile (2D) or 3D improves productivity and reduces rework and over-dredge.



LARGE GRID MODELS

Large grid models make it easier to visualize differences between current and project status. Rugged large display for easy of use and personalization.



HIGHLY CONFIGURABLE

Highly configurable to suit endless machine/vessel configurations. Wide room for different applications including basic excavation, dredging, piling and revetment works.



NEMO 110

NEMO110 is an unmanned vessel system with integrated single-beam echosounder. Thanks to this versatile solution it is possible to carry out surveys and measurements in areas not reachable, or difficult to reach, by crewed ships such as shallow waters and coastal areas. NEMO110 can be used in underwater topographic surveying and mapping, hydrological surveying and underwater hidden pipe detection.



Flexible and High-performance Positioning Systems

Stonex Special Projects division has designed several solutions for marine sector:

• STX-MA-SAIL

Solution for navigation control and boat guidance in confined spaces.

• STX-MA-DREDGECUT & STX-MA-DREDGECRA

Solution for positioning and controlling a dredger: by entering the information regarding the dredge, the quarry and the objective of the work, the system allows the operator to have a visual support for controlling the position and the progress of the work.

• STX-MA-BLOCK

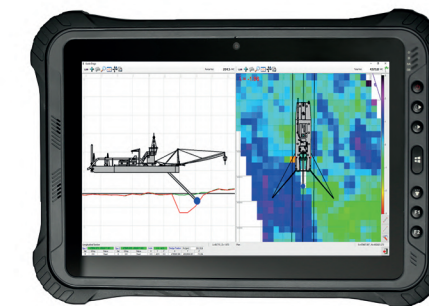
Monitoring system for underwater placements of blocks according to a predefined grid.

• STX-MA-BARGE

An easy navigation control able to move the barge to the designed working position.



1 Tablet + Software



2 Sensors



3 GNSS Antenna



4 GNSS Receiver



SPECIAL PROJECTS

ROAD & CONSTRUCTION

Stonex solutions for road and construction are simple and intuitive created for to facilitate the work and increase the quality.

Our solution guides the machine on the exact position, by showing bearings and direction on the display of the tablet. The stakes that have already been processed are highlighted on the screen and a CSV report of the work is also available, allowing a straightforward and error-free workflow from the field to the office.

The on-site project creation allows to define the pickets distances using a GPS receiver Stonex and a tablet.



PROJECT AND DESIGN

The Project can be generated, importing the local coordinates from different formats (DXF, TXT). A TARGET POINT file will be produced for the GPS navigation purpose.



SURVEY STAKE-OUT

Our solution is a quick and smart stakeout GPS solution made for any kind of operator. A clear guidance layout aids the operator to find the post position with centimetres accuracy.



MACHINE GUIDANCE

It fits on any kind of piling machines, drives the operator on the target point (post coordinates) in manual and automatic mode.



AUTO LEVELLING

A slope sensor with an hydraulic interface can be installed on any machine in order to assure always the best levelling accuracy of the mast along two axis.



ROI

Adopting Stonex solutions means reducing production costs. Less operators with high productivity.

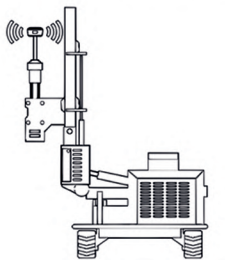


ANDROID SOFTWARE

Software solutions that work with Android system.



GPS guidance system for road safety barriers installation and construction



Stonex Special Projects division has designed some solutions for road and construction:

• STX-RO-POLE

Solution for the accurate positioning on site of support poles for guard-rail type road barriers.

• STX-RO-OKPOLE

Solution for the accurate positioning on site of the support poles for road barriers such as guard-rail with validation system of the stability of the pole.

• STX-CON-POLE

Solution for checking and validating the stability of a pole in the building field.



1 HW + Software



2 Sensors



3 GNSS Antenna



4 GNSS Receiver



SPECIAL PROJECTS

FLEET MANAGEMENT

The Stonex Solution for fleet management consists of a miniaturized GPS/Glonass unit, with an easy-to-install, high-performance container.

The installation of an external GPS/Glonass receiver increases its accuracy and type of use, furthermore the integrated three-axis accelerometer makes the solution highly performing.

Thanks to the complete configurability, the macro functions, the native interfaces (such as CAN and OBD) and the availability of an extensive and complete set of I/O and accessories, it adapts to any application and vehicle.



FOR DIFFERENT VEHICLES

Our fleet management solution is suitable for any type of vehicle.



PRECISE LOCATION

Thanks to our kit of receivers and sensors the position of the vehicle is highly precise.



REAL TIME UPDATES

It is possible to see the position of the vehicles in real time on a digital map within the management software.



HIGHLY CONFIGURABLE

You can configure the system according to your needs. Easy management of tasks and vehicles.



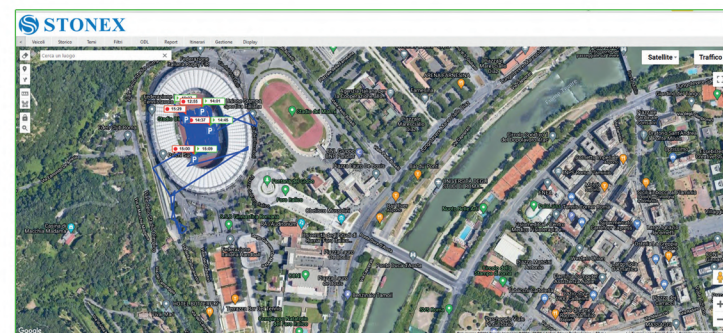
ROI

Adopting Stonex solutions means reducing production costs. Less operators with high productivity.



WEB SOFTWARE

Web based software solution developed specifically for maximum efficiency.

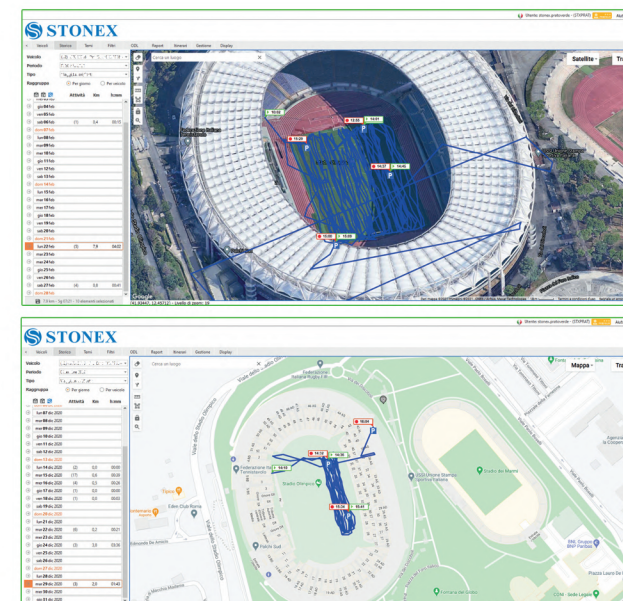
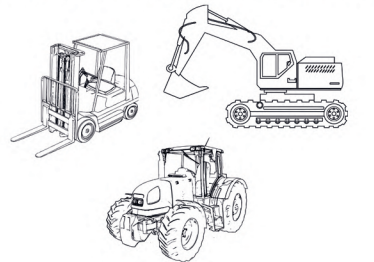


High-performance Positioning Systems and Web based software

Stonex Special Projects division has designed a solution for GPS positioning of vehicles.

Main features

- Vehicle and fleet location on map
- Hybrid, satellite, streetview map display
- "Mobile" access optimized for Tablet PC or smartphone
- Historical track report
- Vehicle statistics report
- Warning light or alphanumeric display for the overcoming of the machine control event



1 Software



2 Sensors



3 GPS & Control unit





Part of **UniStrong**



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