e-survey

PRODUCT CATALOG

e-survey

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Shanghai eSurvey GNSS Co., Ltd.

Website & Social media

esurvey-gnss.com

e-survey

About eSurvey

Established in 2005 under UniStrong, eSurvey started global business in 2018 with its nearly 20 years of R&D and production experience in the field of the geospatial industry. Our commitment is to provide the world with GNSS navigation and positioning solutions with continuous stability and innovative technology applications.
eSurvey helps users in many industries to work more accurately and efficiently, including infrastructure construction, geographic information, precision agriculture and marine surveys, etc.

Relying on its independently developed core technology, strong and reputable product performance, fast delivery and reliable after-sales service system, eSurvey has established a powerful distribution network in more than 100 countries and regions, offering integrated products, solutions, and services for global users.

- Headquarters
- Regional Office
- Regional Parnter

Become Our Dealer

Contact Us

Marketing: marketing@esurvey-gnss.com
Sales: info@esurvey-gnss.com
Support: support@esurvey-gnss.com

100+
COUNTRIES
WE OPERATE IN

50+
PRODUCTS
WE OFFER

15+
INDUSTRIES
WE SERVE

CONTENTS

Products

Software

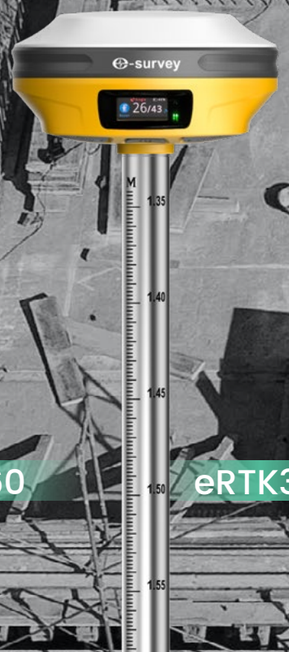
Solution

Integrated GNSS Systems

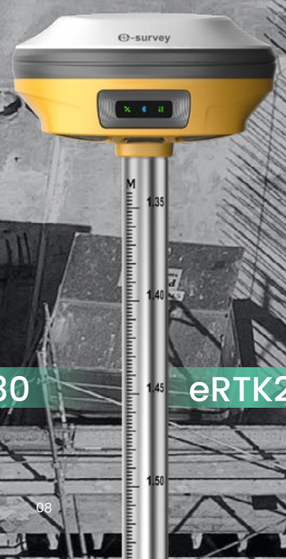
Powered by self-developed IMU algorithms, high-performance GNSS chips, boards, radio modules, and an integrated antenna as a solid technological foundation, eSurvey GNSS receivers are highly precise and can do your work more efficiently.

eRTK10 mini

eRTK60



eRTK30

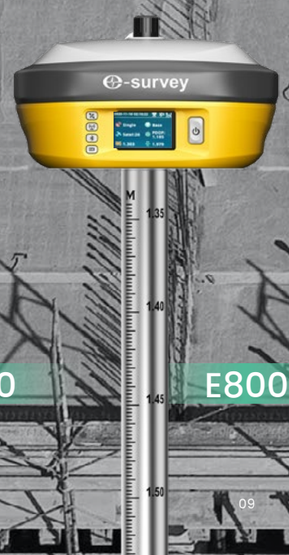


eRTK20

eBase20

E300 Pro

E500



E800

eRTK10 mini

Pocket-size GNSS RECEIVER

The eSurvey eRTK10 mini is a pocket-size IMU-based GNSS receiver equipped with a high-performance and high-precision GNSS module. It integrates IMU tilt technology for efficient staking out, features a compact and lightweight design for easy portability, and serves as an ideal high-precision GNSS positioning sensor for seamless integration into various industry application solutions.

Easy to be integrated

With its configuration of voice prompts, indicator lights, a universal Type-C interface, and Bluetooth 5.0 EDR & BLE for seamless interaction and integration, this device provides stable high-precision GNSS positioning data. It is suitable for various industry solutions requiring high-precision GNSS positioning.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Ultra-portable

Palm-sized and weighing just 380g, this receiver is incredibly light and easy to carry. Its sleek design allows seamless integration into portable solutions, delivering stable high-precision GNSS data for a variety of industries.

AR Visual Stakeout: More Efficient Stakeout

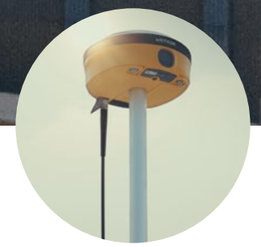
There is no need to move the pole back and forth and rely on work experience during a stakeout. Follow the visual guide to precisely find the target stakeout point. Suitable for a non-experienced user and provide up to 50% more efficiency.

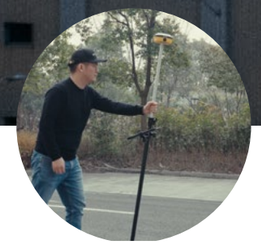
Datasheet

eRTK60

FULL-FEATURED VISUAL GNSS RECEIVER

The eSurvey new eRTK60 GNSS receiver integrates high performance GNSS, IMU and dual-camera technologies to provide more reliable and diverse measurement results. Visual survey technology enables you to measure the point without physically reaching it, thereby giving you more flexibility in the field and maximizing productivity in your projects. The upgraded built-in radio supports longer communication distances. The extended working endurance of the eRTK60 is guaranteed by its hot-swap batteries. Its colorful LED screen also offers a more intuitive working status and operation interface.





Visual Survey: Measuring What You See

Visual survey technology provides accurate positioning coordinates from images captured in seconds.
Measure what you see, get the coordinates of previously unreachable and signal-blocked points.

CAD AR Stakeout: Improved Efficiency

CAD drawings are directly marked on the interface, thus there is no need to choose each point individually.
The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios.

Hot-Swap Batteries: Providing Uninterrupted Service

Designed with a symmetric battery compartment and driven by sufficient charged batteries on hand, the hot-swap battery power system of the eRTK60 is meant to improve power availability while eliminating power-related downtime.

Colorful LED Display

View the primary status and basic information, set the work mode, and operate the device, allowing for more convenient and direct interactive actions.

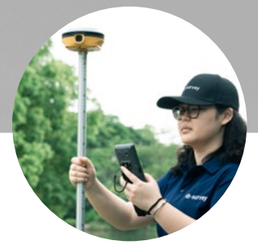
Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the eRTK60 is compatible with traditional major radio protocols. The maximum communication distance can reach 15 km with 2W transmit power in ideal environments.

Datasheet

eRTK30 VISUAL GNSS RECEIVER

The eSurvey eRTK30 GNSS receiver integrates with dual-camera technology for more applications. Its visual survey technology enables you to measure the point without physically reaching the point. That gives you flexibility in the field and maximises productivity in your projects. It supports immersive 3D stakeout and helps you do stakeout faster and improves your working efficiency. The eRTK30 is a perfect choice for diverse surveying applications.



Visual Survey: Measuring What You See

Visual survey technology provides accurate positioning coordinates from images and videos captured in seconds. Measure what you see, get the coordinates of previously unreachable and signal-blocked points.

CAD AR Stakeout: Improved Efficiency

eRTK30 offers an immersive, intuitive perspective of the site to implement the stakeout. CAD drawings are directly marked on the interface, thus there is no need to choose each point individually. The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios.

Multi-constellation and Multi-frequency

With 1408 channels of GNSS tracking, it provides stable and reliable accuracy. All GNSS signals come with the standard including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

Web UI

It allows users to view position status, set up working mode, download data, and update firmware from the Web user interface with any smart phone, tablet, or PC.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

eRTK20 VISUAL STAKEOUT GNSS RECEIVER

The eSurvey eRTK20 GNSS receiver combines GNSS, IMU, wide-angle dual cameras, and a compact design to dramatically improve surveying efficiency. The CAD AR visual stakeout can increase project stakeout efficiency by 40%. With inbuilt radio (Tx and Rx) and a 60° inclination IMU function, The eRTK20 is ideal for any survey scenario.

CAD AR Stakeout: Improved Efficiency

CAD drawings are directly marked on the Surpad interface, so no need to choose each point individually. The CAD AR stakeout is a highly effective tool for optimizing stakeout operations and simplifying complex construction tasks in a variety of construction scenarios. The eRTK20 improves stakeout productivity by 40% by combining CAD base maps and augmented reality (AR) visualization.

Multi-Constellation and Multi-Frequency

With 1408 GNSS tracking channels, it ensures robust and reliable accuracy while also being extremely resistant to multipath effects and interference. All GNSS signals come with the standard including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

Advanced Long-Range Tx/Rx UHF Modem and 4G Modem

The built-in worldwide 4G Networkand Tx/Rx UHF modem enable eRTK20 to transmit GNSS correctionsseamlessly regardless of the operating environment. The eRTK20is compatible with traditional major radio protocols.

Max 60° Tilt Survey: A Different Way of Working

- Accurately measure points while standing or walking without leveling the pole.
- Focus on where the pole tip should go, especially during stakeouts.
- Conveniently conduct surveys in difficult-to-reach areas such building corners and slopes.
- No need to worry about the movement of the pole when measuring, as long as it remains steady.

Datasheet

eBase 20 PORTABLE GNSS BASE RECEIVER

The eSurvey eBase 20 is a professional and portable GNSS base receiver. With a high-precision GNSS module and tracking multiple frequencies, eBase 20 is specifically designed to work as a GNSS base station. Combining a 4G modem and internal radio, eBase 20 is a perfect choice for a base station. The eSurvey eBase 20 is ideal for applications such as UAV, USV, agriculture, intelligent driving, surveying and mapping, etc.

Multi-constellation and Multi-frequency

With 1408 channels of GNSS tracking, it provides stable and reliable accuracy. All GNSS signals come with the standard, including GPS, BDS, GLONASS, Galileo and QZSS.

High Performance and Cost-effective

Embedded with a high-precision GNSS module, eBase 20 provides high performance as a GNSS base station at a low cost. Easy to carry and simple setup process improves work efficiency.

Smart Base Station Service

The smart base station service works while connected to the CORS and gets an accurate position as a known point.

UHF and 4G modem

The built-in Global 4G Network and radio module allow eBase 20 to work perfectly as a base station to transmit GNSS corrections.

Instant Base Station Moved Alarm

When the base station is displaced, eBase 20 will respectively give a warning in real-time to prevent error data to be collected. In addition, there is also a buzzer alarm when the battery is low and the receiver is not activated.

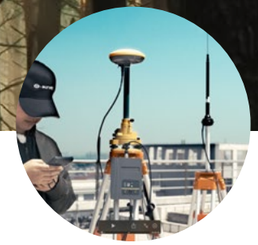
Web UI

It allows users to view position status, download data, and update firmware from the Web user interface with any smartphone, tablet, or PC.

Datasheet

E300 Pro FULL-FEATURED GNSS RECEIVER

The eSurvey E300 Pro is a fully functional GNSS receiver with an extremely compact design by eSurvey GNSS. With its high-performance GNSS board, it can track all present constellations and satellites. The GNSS, Wi-Fi, Bluetooth, and GSM four-in-one antenna, stable data transmission, RTK Aid and IMU function, make it suitable for all surveying applications.

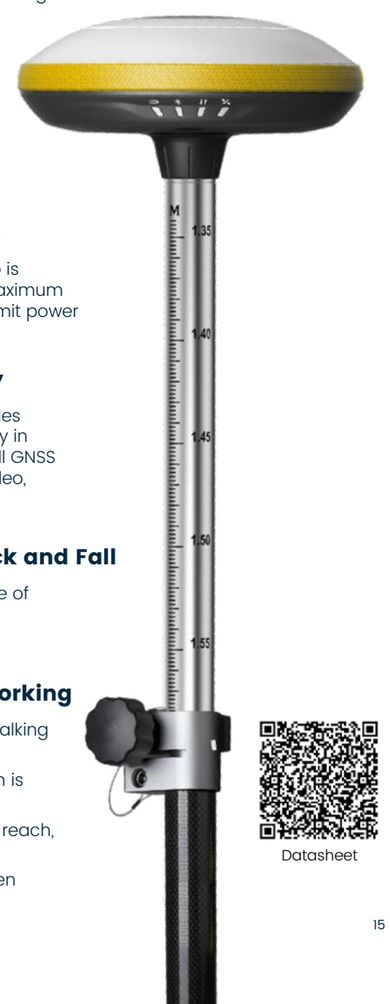


Power Indicator: An Intelligent Hint of Working Time

Quickly check the remaining battery power in real time and figure out the working time without data loss.

RTK Aid Function: Uninterrupted Work

Work without interruption even when RTK corrections fail, powered by our RTK aid function.



Advanced Long-Range Tx/Rx UHF Modem

Integrated with the long range UHF modem, the E300 Pro is compatible with traditional major radio protocols.The maximum communication distance can reach 10 km with 1W transmit power urban environments.

Multi-constellations and Multi-frequency

With 1408 channels of GNSS tracking, the E300 Pro provides stable and reliable centimeter-level positioning accuracy in real-time to suit any field data collection applications. All GNSS signals are supported, including GPS, BDS, GLONASS, Galileo, QZSS, NavIC, SBAS and L-Band.

Rugged Design: Better Resistance to Shock and Fall

Use it for many years, for it is strongly made and capable of withstanding rough handling.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

E500 PORTABLE TILT-FEATURED GNSS RECEIVER

The eSurvey E500 is manufactured for improved performance in complex GNSS conditions. The durable structural design makes it adapt to various working environments. A maximum 60° incline angle ensures a tilt-to-go survey without stopping your workflow.

iF Design Award Product

A global symbol of excellent design - especially with hosting. One of the most prestigious design awards worldwide.

Rugged Design: Better Resistance to Shock and Fall

Use it for many years, for it is strongly made and capable of withstanding rough handling.

Battery and Status Indicator

The battery indicator provides real-time information about the remaining battery power. The status indicator on the button changes colors to show various working conditions.

RTK Aid Function: Uninterrupted Work

Work without interruption even when RTK corrections fail, powered by our RTK aid function.

Integrated Tx/Rx UHF Modem

Upgrade the built-in transceiver radio modem for both the base and rover which is compatible with major radio protocols, allows E500 to provide more reliable and long range communication.

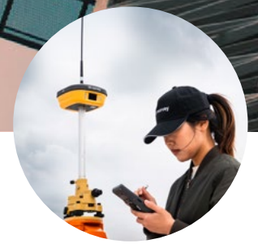
Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

E800 HIGH-PERFORMANCE GNSS RECEIVER

The E800 is a high-performance GNSS receiver that provides an easy-to-use solution for survey professionals who need to collect highly accurate data in a wide range of applications. The durable IP67 design makes it possible to work in extreme environments. The colorful touchscreen is convenient for quick configurations.



5-Watt Internal Radio: Longer Working Distance

No longer need to carry external radio, for its internal radio's working distance can reach 10 - 15 km.

Impressive Battery Life: Longer Working Time

No longer worry about a day's work with its 13600 mAh battery, which makes your data save safely.

1.45-inch Display: Colorful and Touchable

View the primary status and basic information, set the work mode, and operate the device, facilitating more convenient and direct human-computer interaction.

RTK Aid Function: Uninterrupted Work

Work without interruption even when RTK corrections fail, powered by our RTK aid function.

32GB Internal Memory

The built-in 32GB internal memory can store more data, no need to worry about a long-time span project.

Max 60° Tilt Survey: A Different Way of Working

- Quickly measure accurate points while standing or walking without leveling the pole.
- Concentrate on where the pole tip needs to go, which is especially useful during a stakeout.
- Easily start a survey in environments that are hard to reach, such as building corners and slopes.
- No longer worry about the movement of the pole when measuring, provided that the pole tip is stationary.

Datasheet

NET10

GNSS REFERENCE STATION RECEIVER

The eSurvey NET10 is specially designed for a user who needs to set up reference stations. With the 3D choke-ring antenna, the device provides stable correction data to the rover. Integrated with Bluetooth, WIFI, Web UI, ethernet, and serial port, NET10 brings the possibility for more applications.

Multi-constellation and Multi-frequency: Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS and QZSS) of GNSS tracking.

Web UI: Easy-to-use

Enjoy convenient remote connection to the web user interface, including viewing position status, configuring a device, downloading data, and updating firmware with any phone, tablet, or PC.

Smaller in Size: Owning All Major Features

Easily carry it in a variety of complex environments, benefit from its lightweight and compact design, but enjoy its comprehensive functions.

Working Safely: Higher Security

8 - 36 V dc with over-voltage protection.

Smart Alert: An Instant Reminder

Receive an alert email once the satellite number is less than the set value, temperature is too high or the memory storage is almost full.

Rugged Design: Better Resistance to Shock and Fall

Survive a 2 m drop from a concrete floor. IP67 certification ensures operation in various tough environments.

Datasheet

NET20 Plus

HIGH-PERFORMANCE GNSS REFERENCE STATION RECEIVER

The eSurvey NET20 PLUS is designed for high-precision CORS reference stations. With a 13600 mAh battery that can ensure continuous recording and respond to the emergency. Users can use any phone or tablet to configure devices easily from the powerful Web UI. The rich data interface demands various applications such as monitoring and machine control.

Multi-constellation and Multi-frequency: Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS and QZSS) of GNSS tracking.

Complete Functional Continuous Operating Reference Station

- **Richer data interface**

  Enjoy multiple data interfaces, such as serial port, 1PPS, and event to various applications (e.g., meteorology), making versatile applications possible, such as monitoring and machine control.

- **Richer wireless communication**

  Enjoy multiple methods of sending and receiving data, including Wi-Fi, Bluetooth, Ethernet, external radio, and SIM card, which offers more possibilities for communication.

Multiple Remote Administration Methods

- **Support FRP to remote control**

  Users can remotely operate Web UI through the FRP setting to achieve checking or change settings without going to the site.

- **Support FTP and SFTP**

  Users can set upload recording data to the FTP or SFTP server automatically or select the option on the download page.

Visualization of Working Status

With a visual display screen, signal lights, and operation buttons, users can more conveniently know the current state of the NET20 Plus and make simple operations.

Safe and Reliable Continuous Operating Reference Station

- **Impressive battery life**

  Work up to 18 hours to respond to emergencies, such as power interruption, and no longer worry about a day's work; its 13600 mAh battery makes your data safe.

- **Upgraded smart alert**

  Receive an alert email and SMS once the charger is disconnected, the battery level is too low, the temperature is too high, or memory storage is almost complete.

- **Larger memory storage**

  Store the data for a longer time, supported by its internal 32 GB storage and TF card expansion, and manage data more conveniently, supported by FTP push.

Datasheet

eHP10

INDUSTRY DESIGN HEADING AND NAVIGATION GNSS RECEIVER

As a heading GNSS receiver, the eHP10 integrates dual-antenna, TX/RX radio, lora, serial port and 4G network, with a variety of working modes, suitable for Machine control, Marine survey, Geodesy and other industries.Due to its unique interface and internal design, the eHP10 greatly improves the waterproof and shock resistance performance, and can work stably in a variety of environments.

Dual Antenna: Heading and Navigation

Connect positioning and heading antennas to the eHP10 to output heading information and be used in scenarios with heading demands.

Richer Data Interface: Making Versatile Applications Possible

Enjoy multiple data interfaces, such as DB9 serial port, M12 serial port, 1PPS, CAN, Event, UHF, to various applications and etc., to conveniently facilitate synchronization with other devices.

Rugged Design: Designed for Harsh Environments

IP67

Drop it from a height of 1.5 m without any damage and enjoy a dustproof and waterproof rating of IP67, salt spray proof level of C4, mold proof level 1 to use it in all harsh vibration environments, such as vehicles and aviation, due to its simple and modular internal structure design.

Internal Radio/Lora

The eHP10 has internal radio and supports Satel, PCC, TrimTalk, Trimark III, South, and HiTarget radio protocols, ensuring it can work properly even in bad network conditions.

Rich Wireless Communication

The eHP10 supports Wi-Fi, Bluetooth, Ethernet, and SIM cards. Users can send or receive data through any method.

Suitable for Base and Rover

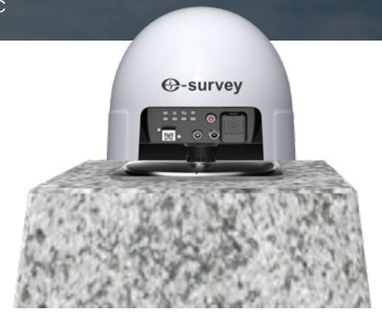
Its lightweight design makes the eHP10 perfect as a rover or base station for multiple applications.

Datasheet

eDMR1

INTEGRATED GNSS MONITORING RECEIVER

Independently designed and developed by eSurvey, eDMR1 features high stability, high reliability and simple operation. It solves the problems of high cost and high deployment consumption of traditional GNSS monitoring equipment. It can be applied to monitoring the displacement and deformation of geological disasters and reservoir dams, etc., and provide all-weather high-quality monitoring results.eDMR1 can collect data by simultaneously connecting to multiple sensors, like rainfall sensor, water level sensor, osmometer, water flow meter, camera, etc., and transmit all collected data. It owns strong edge computing capability and supports local front-end static solution. Benefiting from the built-in warning model based on multi-parameter calculation and analysis, it can realize front-end multi-parameter intelligent calculation, analysis and warning forecast in situations, like extreme weather, no public network, etc



High Static Accuracy

±2.5 mm+0.5 ppm

Horizontal accuracy can be up to ±2.5 mm+0.5 ppm and vertical accuracy can be up to ±5 mm+0.5 ppm.

High Reliability

IP68

Protection level is IP68. Built-in large-capacity lithium battery which can support 25 hours continuous working in case of abnormal power outage.

Independent Front-end Solution

With the built-in embedded solution engine, eDMR1 can complete the dynamic and static solution. The solution results can directly access to the RTU/monitoring platform.

Multiple Communication Mode

4G 485 LoRa

It supports 4G, LoRa, Wi-Fi, RS485 and RJ45.

Impressive Memory Storage

32GB

It owns internal 32GB on-board memory, which can store data more than 2 years. Recording interval 10s.

External Sensors

It supports monitoring sensors with RS485 modbus protocol to provide power and network for sensors.

Datasheet

LiDAR

We have produced 3D laser scanners as more accurate and efficient productivity tools thanks to the rapid advancement of industrial manufacturing, the precision of sensors, and the advanced algorithm capabilities.

3D laser scanners can provide powerful measuring and modeling support for a wide range of businesses by quickly and accurately capturing 3D data of objects or settings. Their uses go far beyond architecture, engineering, cultural heritage, and industry, which makes them critical to the digital transformation.

eScan M1

eHLS2

eScan M1 Anywhere You Go

The combination of zero-processing algorithms and anti-fuzzy technology balances speed and accuracy.
Industry-leading portability, breaking through the traditional device bulky limitations.
With “high efficiency, precision, lightweight and openness” as the core, it offers an optimal user experience from data collection to application landing.

Real Time Data

Zero processing after scanning, point cloud exported for immediate use.

True Natural Colored

Industrial-grade cameras equipped with advanced shutter technology eliminate motion blur.

Modular Design

The Type-C port supports the expansion of external devices such as panoramic cameras and RTKs.

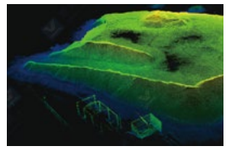
Lightweight and Easy to Use

560g

Weighing only 560g, the simple operation interface makes it quick to master the use of the device.

Garden

Architecture



Volume calcuation

Datasheet

eHLS2 HANDHELD LIDAR SCANNER

The eSurvey eHLS2 is a new portable handheld LiDAR scanner designed and manufactured by eSurvey GNSS experts. It is flexible and easy to operate. Powered by an industry-leading SLAM algorithm, eHLS2 can acquire point cloud data for both indoors and outdoors with high accuracy. High-definition colorized point cloud can also be acquired with the external camera. With an optional GNSS module, eHLS2 acquires a more accurate point cloud integrated with GNSS location.

Reliable High Accuracy

With the industry-leading SLAM accuracy, eHLS2 can acquire high-accuracy 3D point cloud data stably.

High-definition Colorized Point Color

With the 6K resolution camera, the features of objects within the point cloud are displayed more clearly.

Versatility and Flexibility

Suitable for indoor, outdoor, underground, and even some demanding environments.

Support for radio mode

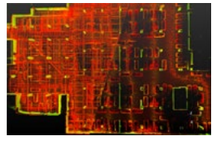
Will be adapted to the E300 Pro and E800 and other receivers, unlimited working environment.

Hot-swappable Dual Batteries

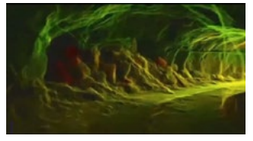
The hot-swappable dual batteries effectively prolong the working time of the eHLS2.

Multi-platform Supported

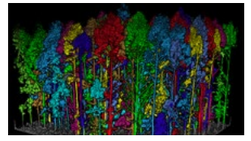
eHLS2 can be expandable to multiple platforms, including a backpack, vehicle, intelligent robot, etc.



Garage



Mine tunnel



Forestry

Datasheet

Machine Control

Based on the fusion technology of GNSS and sensors, the eSurvey machine control technology can be used to accurately position earthwork machinery. Operators can easily and accurately operate the machine to work compared to the machine's position and design surface. Furthermore, the eSurvey machine control allows you to monitor the construction status remotely through the cloud, manage the machine, and assign tasks, making your project more efficient.

eME30 3D GNSS EXCAVATOR GUIDANCE SYSTEM

The eSurvey eME30 is designed with high accuracy and consumes less time by guiding excavator operations. It employs GNSS RTK technology to obtain the bucket's real-time and accurate 3D position information by reading multiple tilt sensors installed on the excavator. The eME30 features intuitive, easy-to-learn software that runs on the Android operating system. The state-of-the-art hardware and software help operators of all skill levels work faster and more efficiently than ever, especially in complex environments. To sum up, you can accomplish more in less time.

Adaptation Flexibility

Support global coordinate library, and provides multilingual versions for global users;
Supports CORS, radio, and other differential modes.
Support multi-project and multi-site management, can quickly switch between multiple sites;
Support backhoe, hydraulic breaker, drum cutter, face shovel, tilt bucket, and other accessories, with fast switching;
Supports bucket tooth tip wear compensation, allowing for high-precision positioning even on older buckets.

Operation Safety

No more traditional survey and stake out,bucket tip is your new tool.
Set up an e-fence as an avoidance zone to decrease accidents and economic compensation while also improving construction site safety.
System abnormal status reminder to prevent problems caused by sensor abnormality or improper operation.

True and Productivity

Independent innovation technology, the system accuracy reaches 3cm RMS , suitable for projects with strict standard.
Support the Cloud platform Data storage, playback,real-time supervisor and management.The data is real and effective, allowing for remote management of quality and progress. The whole process data is automatically collected, distributed, and archived, making it convenient for data query, unified analysis, and decision-making assistance;
Construction process data visualized, real-time replay of construction process, intuitive, and construction outcome report can be found as inspection data.

More Attachment Support

The eME30 system supports tilt buckets, twisting buckets, hydraulic breakers, drum cutters. Once set up, there is no need to measure again when changing attachments.

Accomplishing More in Less Time

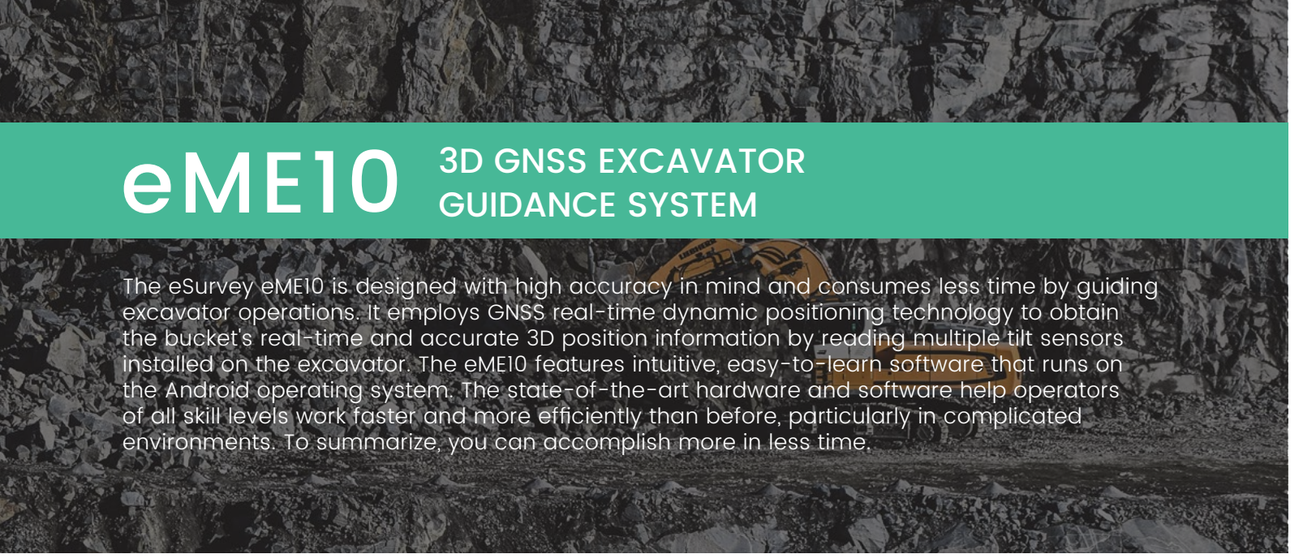
Quickly calibrate. A breakthrough new calibration procedure that takes only 15 minutes, requires no difficult operation, and can be completed by a single person and machine. It is easy, efficient, and accurate.
Horizontal guide auxiliary lines and horizontal offset display;
Point mark layout function, which can mark the position, perform point library management, and indicate the guidance to the target point;

Datasheet

MI-2 Tilt Sensor

MDP-1 Display

MA-2 GNSS Antenna



eME10 3D GNSS EXCAVATOR GUIDANCE SYSTEM

The eSurvey eME10 is designed with high accuracy in mind and consumes less time by guiding excavator operations. It employs GNSS real-time dynamic positioning technology to obtain the bucket's real-time and accurate 3D position information by reading multiple tilt sensors installed on the excavator. The eME10 features intuitive, easy-to-learn software that runs on the Android operating system. The state-of-the-art hardware and software help operators of all skill levels work faster and more efficiently than before, particularly in complicated environments. To summarize, you can accomplish more in less time.

Improved Accuracy

Bucket teeth with 3cm accuracy.
Visualized the blind spots and real-time guidance during the working process,
Results are displayed graphically and digitally for easy understanding.
Reduces over- and under-excavation while improving the general flatness of the excavation surface.

Lower Cost

No assistant is required; One person can complete the work.
Reduce the requirements for the operator.
No measurement or stake out is required; Simply start the machine and work.
Reduce fuel consumption and mechanical loss to reduce operating costs.

Improved Efficiency

Simplified construction process, 50% higher efficiency.
Quick excavation, reduced rework, and guaranteed construction period.
24-hour construction without being affected by the environment
No fear of complex shapes; One-time molding.

Easy Installation

One man can install all. Work faster and more efficiently by guiding excavator operations, quick for the installation and easy for the operator. Installation could setup on boom or machine body.

Rugged Hardware

The eME10 can be used for many years even under harsh environmental conditions (like dust, mud, rain, extreme heat, and cold) thanks to its rugged design of the display, GNSS receiver, positioning antenna, heading antenna, and tilt sensors.

Fast Calibration

A new 3D modeling calibration method will provide customers with a brand-new way of measuring that does not require a total station. Easy and quick to learn and run; No need calculate the parameters on site.

Datasheet

MI-2 Tilt Sensor

MA-2 GNSS Antenna

MDP-1 Display

eMC10 3D GNSS GUIDANCE SYSTEM

The eSurvey eMC10 Crane Intelligence System integrates multi-constellation precise positioning with real-time 3D guidance via sensor fusion, accurately tracking the crane hook's coordinates in real time.
Using coordinate files as design blueprints, it swiftly meets design specifications, bypassing conventional surveying.
It allows the operator to complete tasks quickly and precisely, reduces rework, increases productivity, and raises project profitability.

Flexible Adaptation

Adaptable to different brands and types of cranes with no system limitations.
Support global coordinate library, multi-project, multi-site management, and network differential.

Operation Convenience

Allow clients to create design files locally, eliminate the need for complex design processing conversion on PC software.
Enable fast construction.
It is unaffected by the environment and allows 24-hour construction.
Automatically identify ramming points and record key data such as the number of ramming strokes, ramming distance, and ramming sedimentation.

Quality Monitoring

Allow remote monitoring of the construction process, quality, and progress.
Enable prompt detection of deviations and provide early warning for corrective action.
Real-time recording and transmission of key parameters of the construction process to ensure construction quality.

Security

Stakeless construction enhances site safety by eliminating the need for surveyors to sample the datum line. The electronic fence also enables the setup of danger avoidance zones.

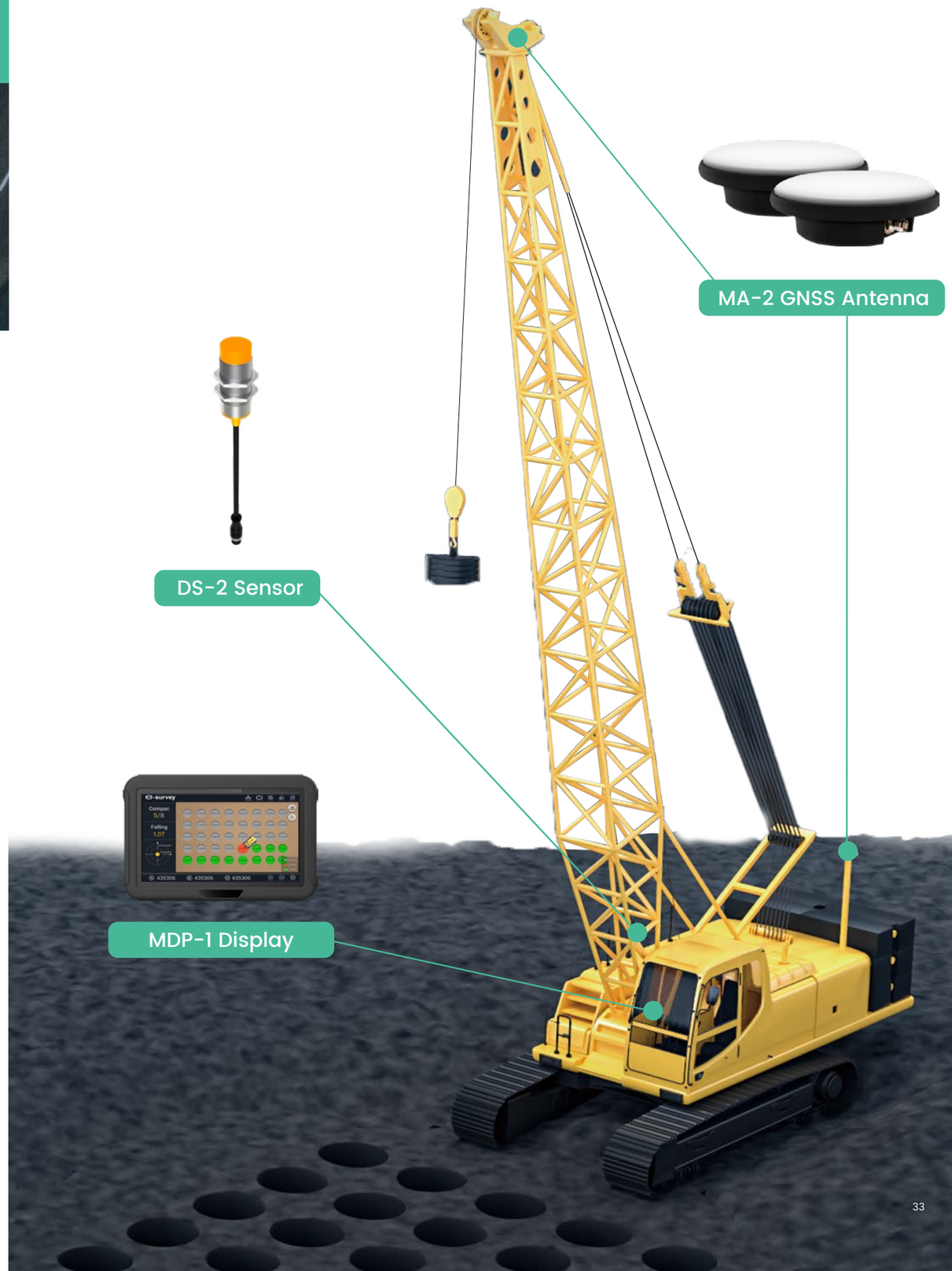
Data Tracing and Platform Communication

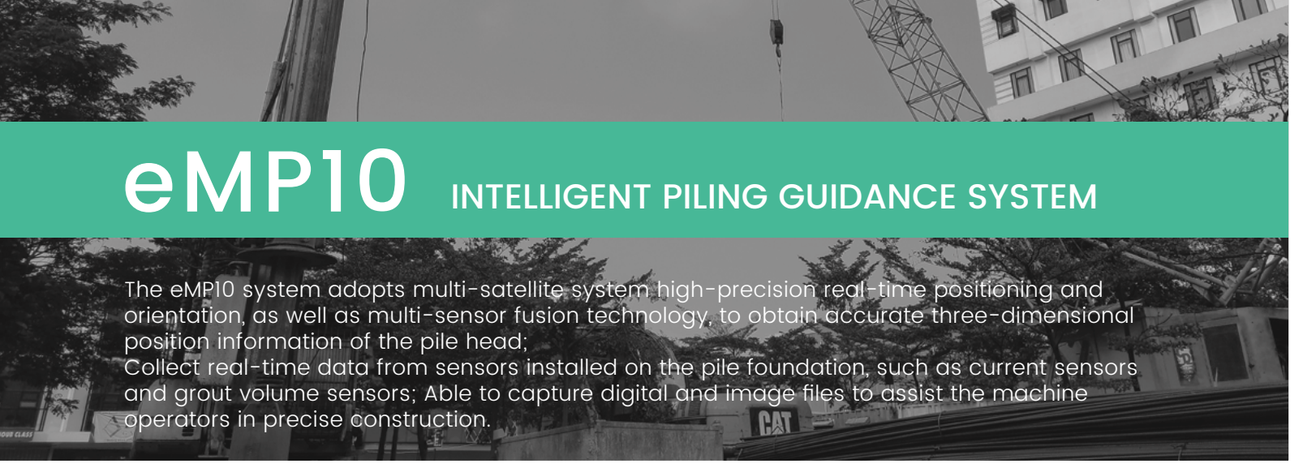
Automatically collect and flow all process data, electronically archiving it for easy data query, statistical analysis, and decision-making support.
Construction process data visualization displays in real time, allowing for playback of the construction process.
Communicate with the digital construction management platform in two directions ways.
Remotely send out construction tasks and visualize construction work data.

Wide Application

Widely used in foundation reinforcement projects for residential buildings, highways, airports, railroads, squares, stadiums, industrial plants, ports, wharves, warehouses, petrochemical plants, and nuclear power plants.

Datasheet





eMP10 INTELLIGENT PILING GUIDANCE SYSTEM

The eMP10 system adopts multi-satellite system high-precision real-time positioning and orientation, as well as multi-sensor fusion technology, to obtain accurate three-dimensional position information of the pile head;
Collect real-time data from sensors installed on the pile foundation, such as current sensors and grout volume sensors; Able to capture digital and image files to assist the machine operators in precise construction.

Supported Platforms

Connect with digital construction management platform for realize two-way data transmission and remote quality and progress management.

Data Intuition

Load the pile point design file and visualize the plan.

Quick Guiding

Pile point guiding to the pile is precise and quick with the pile head orientation data.

Data Monitoring

Real-time depth monitoring for drilling and piles.

Error Monitoring

Track the pile frame's tilting conditions from the beginning to the present, and display the overall verticality deviation in real time.

Power Supply Monitoring

Monitor the real-time value of drilling current in the drilling rig while drilling, and record any abrupt change in the holding layer.

Adaptable

Strong R&D capabilities; Support a variety of piling machinery: static pile, CFG long auger drilling rig, cement mixing pile, photovoltaic piling rig, rotary drilling rig, down the hole drilling rig, drainage sheet pile, and rotary spraying pile.

In-construction Inspection

Real-time monitoring of drilling speed.

Datasheet

eMG30 3D AUTOMATIC CONTROL SYSTEM FOR MOTOR GRADERS

The eMG10 system improve the construction quality and efficiency of earth moving engineering. The system adopts GNSS RTK high-precision positioning technology, IMU, and hydraulic control technology to calculate the three-dimensional coordinates of the grader blade in real time. And, according to the three-dimensional design drawings on the vehicle tablet, the blade attitude is controlled in real time, with absolute elevation accuracy of centimeters.

Real-Time Automatic Blade Control

Its automatic real-time blade control adjusts the blade to the design surface, achieving finished grade accuracy in less time. One or two times the demand accuracy. It requires no more surveyor besides the motor grader, minimizes errors and rework, and significantly increases productivity.

Convenient Operation

Sound prompts, such as operation and danger warning prompts, etc.
Graphical and numerical indication of the relative position of the actual shovel blade and the design surface.
3D visual guidance is intuitive and easy to understand, improving the smoothness of the working surface and ensuring rapid modeling.
Work accurately even at night when the field of vision is limited.
Support online version updates and quick registration.
Support the generation of design files on the client side for faster construction.
Support the import and export of coordinate conversion parameters and calibration files to speed up the system calibration process.
Multiple calibration files can be stored and switched.

Easy Drive in Accuracy

It requires no more experienced motor grader driver. Automatic blade control system controls the blade based on the design, and drive the grader easily without any concern about the cutting performance.

Site Safety

Stakeless construction enhances the safety of the construction site.
Electronic fence improves site safety.
Precise and efficient. Reduce the driving requirements. Support rapid construction molding and quality control.
Manual and automatic control modes can be effortlessly switched.

Datasheet

eMR10 GNSS INTELLIGENT ROAD ROLLER SYSTEM

The eSurvey eMR10 intelligent road roller compaction system adopts high-precision Beidou positioning, compaction sensor and temperature sensor technology.
The eMR10 digitally and graphically displays and records the construction process data in real time, collects and monitors the speed and trajectory of vehicle travel, compaction value, vibration status, milling temperature and other key parameters.
The data is transmitted back to the synchronized digital construction management platform in real time to generate customized reports, ensuring the construction quality of rolling.
The eMR10 is widely used for earth and stone layered filling, subgrade, and surface grinding on a variety of projects, including railroads, highways, dams, and harbors.

Adaptation Flexibility

Support the global coordinate library and provide multilingual versions;
Support Athena Engine RTK with L-Band China accuracy, intelligent receivers can achieve centimeter-level accuracy;
Support multi-project and multi-site management, and can be quickly switched between multiple sites;
Support network differential.
Support the integrated positioning board card program of the display and control terminal, easy installation;
Support the reception of RTCM1021-1027 conversion parameters.
Adaptable to single-steel wheel, double-steel wheel, rubber wheel, and impact mill models.

Real Effectiveness

Real-time display of the number of rolling passes, rolling speed, rolling temperature, compaction, and other index values as well as the vibration status of rolling;
Real-time recording of the actual data of layered filling and rolling, reducing rework and ensuring the rate of one-time passing inspection;
Support the digital construction management platform by enabling two-way transmission and facilitating the visualization management of remote quality and progress.

Operation Convenience

Sound prompts, such as operation and danger warning prompts, etc.
Real-time display of key parameters and completion status of the crushing process with graphics, numerical values, and other methods;
Set a horizontal guide line to avoid missing areas during compression;
Navigation function;
Support online version updates and speedy registration via networking;
Support the import and export of coordinate conversion parameters and calibration files to speed up the system calibration process.
Support WiFi connection to the rover station and automatic acquisition of coordinate points;
Enable fast display of receiver and sensor connection status and data; Discover abnormal situations and deal with them promptly.

Site Safety

Stakeless construction and automation enhance the safety of the construction site;
Implement electronic fencing, creating danger avoidance zone, and reducing accidents.
Reduce labor costs while protecting the people from the harsh construction surroundings.

Datasheet

MA-2 GNSS Antenna

MDP-1 Display

CS-2 Sensor

eMB10 3D INTELLIGENT SYSTEM FOR BULLDOZERS

The eMB10 integrates multi-constellation precision positioning, sensor fusion, and real-time 3D guidance for bulldozer blade guidance or control. Using 3D data as a reference, the system rapidly meets design specs without traditional surveying.
The system enables round-the-clock operation by any operator, hence ensuring speedy and accurate task completion, reducing rework, and enhancing productivity and project profits.

Flexibility

Support global coordinate library, suitable for global users, and provide multilingual versions.
Support Athena engine RTK and L-Band China accuracy; Even without the base station, the intelligent receiver can reach centimeter-level accuracy.
Support network differential.

Convenient Operation

Sound prompts, such as operation and danger warning prompts, etc.
Graphical and numerical indication of the relative position of the actual shovel blade and the design surface.
3D visual guidance is intuitive and easy to understand, improving the smoothness of the working surface and ensuring rapid molding.
Work accurately even at night when the field of vision is limited.
Support online version updates and quick registration.
Support the generation of design files on the client side for faster construction.
Support the import and export of coordinate conversion parameters and calibration files to speed up the system calibration process.
Multiple calibration files can be stored and switched.

Real Validity

Self-innovation technology achieves system accuracy of 3cm RMS.
The digital construction management platform enables two-way transmission of design documents, construction tasks, and data to the cloud in real-time.
The data is real and effective for managing remote quality and progress visualizations.

Site Safety

Stakeless construction enhances the safety of the construction site.
Electronic fence improves site safety.
Precise and efficient. Reduce the driving requirements. Support rapid construction molding and quality control.
Manual and automatic control modes can be effortlessly switched.

Datasheet

MA-2 GNSS Antenna

MDP-1 Display

MI-1 Inertial Sensor

Precision Agriculture

Precision agriculture is a farm management approach oriented towards higher efficiency that uses information technology to ensure that crops and soils receive the accurate information needed for optimum health and productivity. It enables farmers to more efficiently and effectively do farm works, including fertilization, pesticide spraying, tillage, and irrigation. Thus, farmers can get greater crop yields with less inputs and less environmental pollution.

Bestar 301

EAS100

EAS301 Pro(Motor)

EAS301 Pro(Hydraulic)

ePL10

Bestar 301

MULTI-FUNCTIONAL AUTO-STEERING SYSTEM

Independently developed by eSurvey GNSS, the eSurvey Bestar 301 is a multi-functional electric wheel-based auto-steering system.
The Bestar 301 could transfer farm work from fully manual driving to semi-automatic operation. It means high time efficiency and less operator fatigue. Based on the route planning algorithm, the vehicle could go through the same paths every time to seed, spray and harvest with ±2.5 cm accuracy, which increases crop yield and reduces chemical usage.

L-Band

Powerful satellite based signal service: 👍

Using PPP(L-Band) enables high-precision operation even when CORS and other base station services cannot be obtained.

All-purpose System: Suitable for Various Types of Agricultural Machinery

Apply it to multiple types of agricultural machinery, including tractors, transplanters, sprayers, harvesters, etc., to make your farm work more effectively.

Easy Installation: No Need to Change Hydraulic Circuit

Install or remove it from your agricultural machinery as fast as 15 minutes.

Smart ECU: Easy configuration and upgrade

Bestar 301's ECU is based on a Linux system, allowing users to view position status, set up working mode, and update firmware from the user interface with any smartphone, Web tablet, or PC.

0.2km/h

High Control Accuracy with Ultra-low Speed

Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2km/h, and no longer need to worry about fine planting vegetables and fruit crops.

24H

24-hour Uninterrupted Work

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the Beatar 301 lost correction data.

Rich Optional Functions

Users could choose upgradable functions like 20 Hz DB9 NEMA direct output, dual camera, and ISOBUS-VT.

Datasheet

Datasheet

EAS100

AUTO-STEERING SYSTEM FOR PRECISION AGRICULTURE

EAS100 is eSurvey new generation electric wheel-based auto-steering system. EAS100 could transfer farm work from fully manual driving to semi-automatic operation. It means high time efficiency and less operator fatigue. Based on the route planning algorithm, the vehicle could go through the same paths every time to seed, spray and harvest with ±2.5 cm accuracy, which increases crop yield and reduces chemical usage.

Split Type Design: No Worry for Vehicle Shaking and Signal Interference

IMU modem and GNSS receiver integrated into one box, and rigid connection with the vehicle makes the system shaking-free and less electromagnetic interference to GNSS signal receiving via professional surveying antenna.

All-purpose System: Suitable for Various Types of Agricultural Machinery

Apply it to multiple types of agricultural machinery, including tractors, transplanters, sprayers, harvesters, etc., to make your farm work more effectively.

New Electronic Motor: Less Cable and Easier to Use

EW2 motor integrated with simplified harness and switch will make operation more convenient and fast.

Easy Installation: No Need to Change Hydraulic Circuit

Install or remove it from your agricultural machinery as fast as 15 minutes.

0.2km/h

High Control Accuracy with Ultra-low Speed

Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2km/h, and no longer need to worry about fine planting vegetables and fruit crops.

24H

24-hour Uninterrupted Work

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the EAS100 lost correction data.

EAS301 Pro

MULTI-FUNCTIONAL ELECTRONIC MOTOR AUTO-STEERING SYSTEM

Independently developed by eSurvey GNSS, the eSurvey EAS301 Pro is a multi-functional electric wheel-based auto-steering system. The EAS301 Pro could transfer farm work from fully manual driving to semi-automatic operation. It means high time efficiency and less operator fatigue. Based on the route planning algorithm, the vehicle could go through the same paths every time to seed, spray and harvest with ±2.5 cm accuracy, which increases crop yield and reduces chemical usage.

All-purpose System: Suitable for Various Types of Agricultural Machinery

Able to apply it to multiple types of agricultural machinery, including tractor, transplanter, sprayer, harvester, etc., to make your farm work more effectively.

Easy Installation: No Need to Change Hydraulic Circuit

Install or remove it from your agricultural machinery as fast as 15 minutes.

Smart ECU: Easy Configuration and Upgrade

EAS301 Pro's ECU is based on a Linux system, allowing users to view position status, set up working mode, and update firmware from the Web user interface with any smartphone, tablet, or PC.

High Control Accuracy with Ultra-low Speed

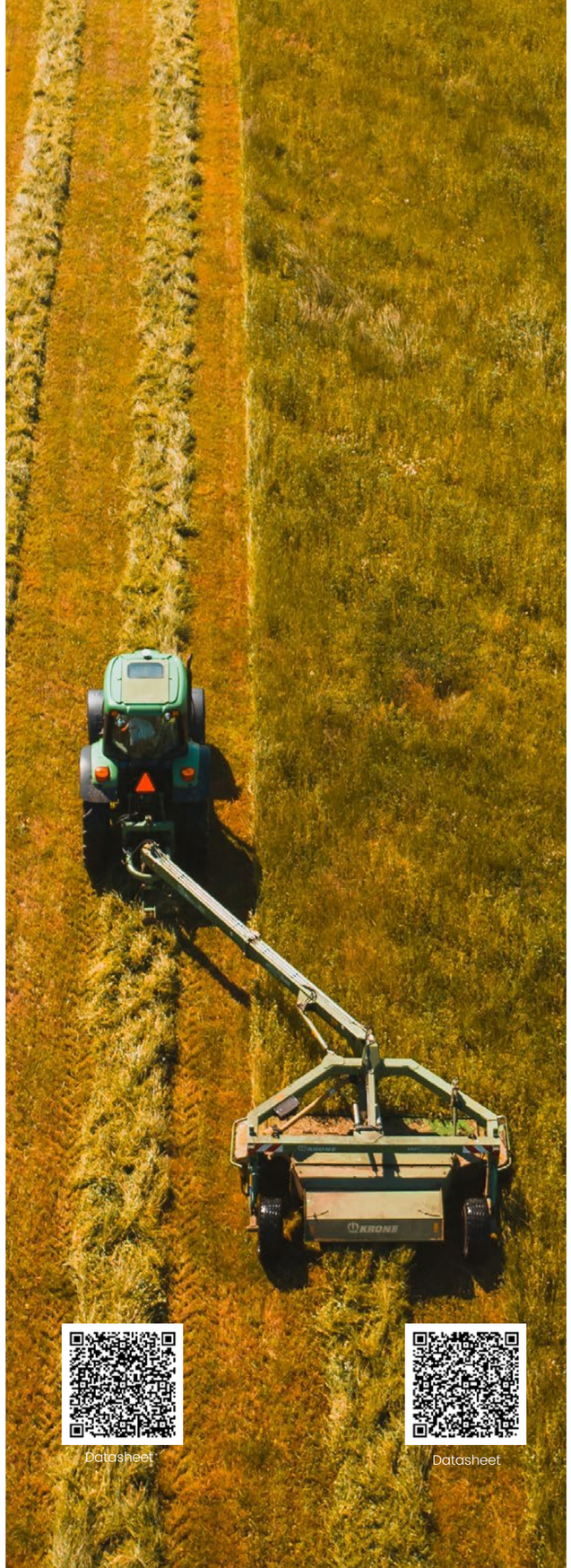
Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2 km/h, and no longer need to worry about fine planting vegetables and fruit crops.

24-hour Uninterrupted Work

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the EAS301 Pro lost correction data.

Rich Optional Functions

Users could choose upgradable functions like 20 Hz DB9 NEMA direct output, dual camera, and ISOBUS-VT.



Datasheet

Datasheet

EAS301 Pro

HYDRAULIC AUTO-STEERING SYSTEM

The eSurvey EAS301 Pro is an eSurvey hydraulic retrofit auto-steering kit. The EAS301 Pro noticeably improves the operation efficiency of agricultural machinery by the centimeter-level accuracy of repeated farming operations and 24-hour uninterrupted work even in the day with heavy UV lights or at night. It also reduces the labor intensity of drivers and increases the unit output.

Hydraulic Installation: Longer usage and Reserve Steering Wheel

Hydraulic retrofit kit merges auto-steering system into tractor hydraulic system, allowing users to use a longer time and will not change the current steering wheel.

Smart ECU: Easy Configuration and Upgrade

EAS301 Pro's ECU is based on a Linux system, allowing users to view position status, set up working mode, and update firmware from the Web user interface with any smartphone, tablet, or PC.

High Control Accuracy with Ultra-low Speed

Enable ±2.5 cm control accuracy even when the vehicle speed is as low as 0.2km/h, and no longer need to worry about fine planting vegetables and fruit crops.

Free from Terrain Worries

No longer need to worry about rough terrains, supported by our T3 terrain compensation technology. It minimizes skips and overlaps between each pass when working on complex and sloping fields.

24-hour Uninterrupted Work

Continuously work even in the day with heavy UV lights or at night. Free RTK aid function could maintain centimeter accuracy for 600 seconds when the EAS301 lost correction data.

Rich Optional Functions

Users can choose upgradable functions like 20 Hz DB9 NEMA direct output, dual camera, and ISOBUS-VT.

ePL10

LAND LEVELING SYSTEM FOR PRECISION AGRICULTURE

ePL10 is a satellite leveling system developed by eSurvey GNSS. ePL10 uses global satellite navigation system positioning technology and automatic control technology to complete leveling operations such as trenching, soil cultivation, and soil covering.




Powerful function

ePL10 supports flat operations, slope operations, double slopes, and terrain surveying.

Hands-free

Intelligent algorithms significantly reduce manual lifting operations, and a complete set of self-developed control algorithms greatly reduce manual operations by drivers, improve work quality, reduce labor costs, and improve labor efficiency.

Flexible control

ePL10 supports single positioning channel levelers, dual channel levelers, and other implements. It is relatively flexible and offers an effortless control.

Accurate operation

Using high-precision PTK differential positioning technology, achieving centimeter level positioning accuracy, precise and fast control effect, and real-time calculation of altitude difference.

Easy to install

The simplification of hardware and wiring harness make an entire installation process very simple.

Datasheet

USV

Unmanned surface vessels (USVs) are the remotely-operated hydrographic survey boats. With unmatched usability, good stability, rugged hulls, exceptional design, and high performance, eSurvey USVs incorporate Eco sounders, GNSS positioning, live video, and wireless transmission technology. With the advanced route planning algorithm, eSurvey USVs can help automatically realize autonomous navigation surveys according to the planned route.

VE115

VE158

VE115

A MULTI-PURPOSE USV PROVIDING MULTI-MISSION CAPABILITIES

The eSurvey VE115 is a full-integrated innovative solution for 3D bathymetric surveys and is widely used for different types of research including hydrology, leakage, water-quality studies, the contour of streams and reservoirs, storage and fill-in reservoirs and ponds, etc. The VE115 carries up to 15 kg of payload and is completely autonomous, it is safely operated from the shore. The VE115 offers an unmanned operation solution with a shallow draft, high navigational accuracy, and stable hovering for hydrologists.

Exceptional Hull Design

Experience a trapezoidal-shaped trimaran with better load and better ability against wind and waves, no longer need to worry about bumping and stranding for the installation position of the propeller levels. The hull makes placing the USV on the shallow shore possible.

Modular Design and Ease of Maintenance

Easily assemble and disassemble all parts for maintenance, and experience remote assistance if there is a hardware problem. That is, we can remotely guide you to detect which part is wrong and send you the parts to replace it, which greatly simplifies the repair process and avoids delays in sending the whole USV back.

Powerful technology: 700W Power for Each Thruster

The VE115 can reach 6 m/s by 1400w total strong power, which can perform well against water current. It is better for use in the ADCP survey.

Expand Your Unmanned Survey Capability

Freely choose the most suitable GNSS system from all eSurvey GNSS receivers and the needed sensors from single-beam echo sounder, dual single-beam echo sounder, ADCP, and online water quality monitoring system and water sampling system.

Compatible with ADCP, Long Endurance

The VE115 supports a wide variety of Acoustic Doppler Current Profiler (ADCP) systems available on the market. The VE115 weighs 25 kg, it's easy for two men to operate and transport. Powerful battery and low consumption supports 6 hours of endurance.

Multiple Safety Protection Mechanisms

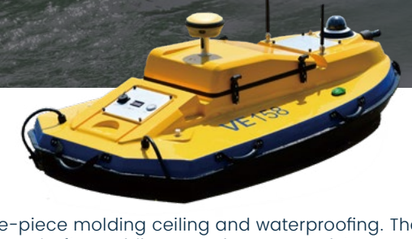
Monitor the operational status of the USV in real-time, supported by the 360° full view camera, no longer need to worry about obstacles encountered during navigation for the ultrasonic obstacles avoidance module can help timely and effectively avoid obstacles, and no longer need to worry about communication loss due to the multiple low-voltage and safe return mechanisms to ensure navigation safety.

Datasheet

VE158

A MULTI-PURPOSE SURVEYING UNMANNED SURFACE VESSEL

Introducing the eSurvey VE158, a groundbreaking and fully integrated solution designed specifically for 3D bathymetric surveys. This innovative system has gained widespread recognition across a range of studies, including hydrology, seepage analysis, water quality studies, profiling streams and reservoirs, and managing reservoir and pond impoundment.
The VE158 boasts a meticulously engineered hull with a comprehensive sealing design.
To ensure maximum protection, anti-collision strips have been strategically installed around the hull, providing resistance against sinking and corrosion. The body design is optimized for space efficiency, featuring a modular structure that is lightweight yet capable of carrying substantial loads.



Exceptional Hull Design

The unique M-type trimaran hull features a one-piece molding ceiling and waterproofing. The hull structure is modular and designed with a shallow draft, providing superior wave resistance and unbeatable stability.
To ensure maximum durability and strength, the hull is brilliantly crafted out of Kevlar and carbon fiber composite materials, furnishing it with exceptional pressure resistance.

Empowering You with the Necessary Force

Equipped with a ducted propeller, our system boasts high-speed sailing capabilities while maintaining optimum performance during low-speed operations. The propeller is designed for effortless disassembly and maintenance, ensuring hassle-free upkeep.

Unparalleled Battery Longevity

Our intelligent battery system incorporates a fast-charging design, ensuring efficient charging times.
Not only is our system lightweight and easy to carry, but it also boasts exceptional endurance, allowing for extended operation periods. The battery system is engineered for numerous cycles, maintaining its performance over time.

Compatible with Multiple Beams, Extend Operation Mode

Hardware Composition:
Precision-designed cabinet; Lightweight and portable, easy to install and use; Experimentally verified by GJB, good performance in all kinds of environments; Professional team after-sales service.
Software Composition:
100% self-developed; Simple and clean operation interface; Ultra-high data quality; Standard protocol output, strong compatibility.

Seamless Communication Made Easy

Our system is equipped with both bridge and network communication modules, offering flexibility to cater to a wide range of operating conditions. With these advanced communication capabilities, distance limitations are eliminated, ensuring uninterrupted and reliable signal transmission.

Ensuring a Safe and Efficient System

Our system provides support for low voltage and lost automatic return, mitigating any potential risks and ensuring stable and reliable performance.
With the ability to choose between straight-line return, original return, and set route return, our system is designed to operate seamlessly and safely in any environment.

Datasheet

Handheld & Tablet

Entirely dedicated to the professional to boost productivity, eSurvey offers a vast selection of rugged handhelds and tablets, available in different sizes and all suitable for rough work conditions, like dust, mud, rain, extreme heat, and cold.

Equipped with high-performance processors, three-proof (waterproof, dustproof, drop-proof) housings, large-capacity batteries, and large-size touchscreens, eSurvey rugged handhelds and tablets are tailored to make your work more effective and efficient.

P9IV

UT12P

UT32

P9IV

A PROFESSIONAL RUGGED CONTROLLER FOR ANY APPLICATIONS

The eSurvey P9IV is a professional-grade Android 11 controller, designed for long time fieldwork. With IP67 certified, the P9IV is suitable for any tough environments. With its ergonomic design, the P9IV offers easy one-handed use and provides extended flexibility during fieldwork. Featuring a MTK 8-core 2.0 GHz processor, Bluetooth 5.0, and a 5.0 inch HD touchscreen, the P9IV provides excellent performance and smooth experience either in or outside the field.

15 HOURS

Impressive Battery Life

Experience 30-day standby time, and continuously work up to 15 hours while the P9IV is connected to a GNSS receiver via Bluetooth and collects data, driven by its 6400 mAh rechargeable lithium-ion battery, and quickly fully charge your P9IV within 3 hours.

Google Service Framework

GMS is a collection of Google applications and APIs, including Google Search, Google Chrome, YouTube, and Google Play Store, that help support functionality across devices. These apps work together seamlessly to ensure your device provides a great user experience right out of the box.

32GB

Large Memory Storage

Store the data for a longer time, supported by its internal 32GB storage and TF card expansion (max 512GB).

5.0 HD

5.0-inch HD Touchscreen

With the Casio BlankView patent, the P9IV provides a clearer view of the screen outdoors, it is brighter and more power-efficient. Wet hand and glove mode supported.

Rugged Design

Integrated magnesium alloy bracket, provides uniform stress at every angle and high strength.

5.0

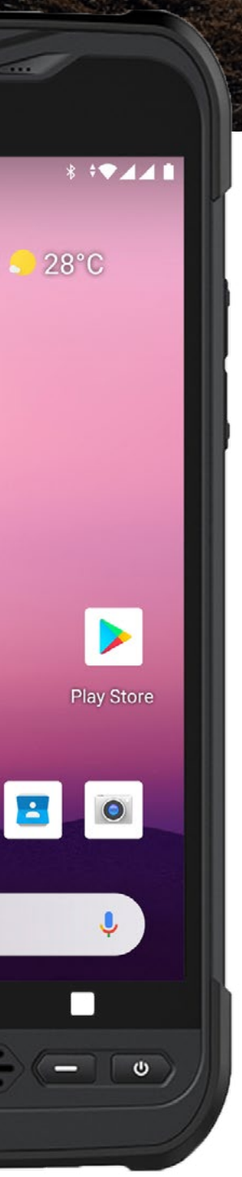
Bluetooth 5.0

The latest version of Bluetooth technology, better performance.

Datasheet

UT12P 6” Rugged Android Handheld

All field operations must be conducted with the right devices to solve problems and extend the mobility of workers. In an increasingly digital world, productivity is closely linked to the quality of the equipment deployed. The UT12P looks great as a rugged smartphone and certified IP68 along with MIL-STD-810G can be used as both a smartphone and a handy tool in rustic working conditions minimizing the risk of damage, the cost of repairs and downtime your work.



Powerful Satellite Tracking Ability

Improve your survey job with an inbuilt GNSS chip which can receive GPS, BDS, and GLONASS signals with the sub-meter level accuracy.

Full-HD Display

Work dry or in the rain with a high brightness sunlight readable panel, 6-inch, with resolution of 1920*1080 px.

Full-featured Handheld

Treat it like your cellphone-call, text, take photos, etc. The pogo pin behind its back allows an external module mounted on top.

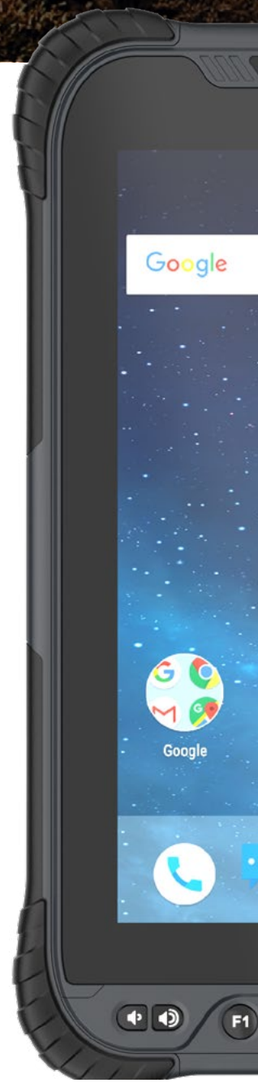
Distinctive Performance

- Continuously work a whole day with no fear of dead batteries after a long field day, with its 8000 mAh rechargeable and replaceable lithium-ion battery.
- Support 4G LTE internet to communicate without limitation, with its dual SIM card module.

Datasheet

UT32 8” Rugged Android Tablet

The UT32 is an 8-inch tablet with Full HD resolution (1280 x 800 pixels). The screen is also bright and colorful, making it easier for you to work. As far as internal performance goes, this is an excellently fast tablet; you can expect plenty of speed and fewer frozen apps thanks to the tablet's 2.2GHz octa-core processor. Thanks to its impressive 8200 mAh rechargeable battery, the device can operate for 6 hours on a single charge. The UT32 is a superb rugged tablet option for anyone looking for portable, easy-to-use tablets.



Rugged Touchscreen

Enjoy a projected capacitive touchscreen that is a more scratch-resistant glass substrate for industrial automation or other harsh working environmental conditions.

Good Compatibility with Android System

Get all the apps and services you need from the Google Play Store, just like your own cellphone.

IP67 Rated and MIL-STD-810G Certified

No longer need to worry about concrete dust, water, oil, and other substances that could otherwise damage the device, for the UT32 is a completely sealed tablet, has no fear of dirt, vibrations, cold, and heat.

Datasheet

Optical

eSurvey optical products are designed to simplify the field workflow, improve measurement accuracy and reduce the workload of surveyors. Featuring precise mechanical architecture, excellent optoelectronic design, and rich measurement applications in land surveying, urban surveying, construction, and deformation monitoring, eSurvey optical products are the perfect choices for you.

eTS2

E3

eTS5

eTS8

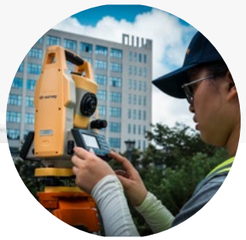
ESL2

ESL3

ET2A

eTS2 HIGH EFFICIENCY OPERATION TOTAL STATION

The eSurvey eTS2 is a high-precision manual total station, with longer measurement range. With standard USB flash disk interface, it can import and export data through USB disk more conveniently.With more concise design, ensure efficient measurement.



Longer Measurement Range

Measured in prism mode within 5000 m.Measure distance in reflectorless mode within 1000 m.

Faster Measurement

Fine measurement 0.3 seconds, tracking 0.1 seconds make survey work more quickly and convenient.

More Reliable Result

Use liquid, dual axis compensation with compensation range of ±4 ',ensure more stable measurement accuracy.

Simple Interface,Easy to Operate

Clear operation interface and alphanumerical keyboard support users do survey work easier.

Long Working Time

It has 3100 mAh battery and support memory with 100000 points, to meet your field measurement needs.

Convenient Data Exporting

Quickly and easily export the measured data via the USB flash drive for data processing.

Datasheet

E3 SIMPLE OPERATION TOTAL STATION

The eSurvey E3 is a high-precision manual total station, with accurate angle and distance measurement. It works reliably and delivers precise results even in harsh environments. And its simple operations make most survey and stakeout tasks more efficiently.

More Accurate Measurement

Measure angle more accurate, supported by our absolute encoder and distance, and measure distance more accurate, supported by our powerful EDM unit.

Faster and More Convenient Measurement

Measure more points per day due to faster measurement and stakeout (including guide light, trigger key for instant measuring), supported by our comprehensive and user-friendly software.

More Reliable Result

Use both X-axis and Y-axis compensators to ensure the reliability of your measurement result.

Rich Software Applications

Experience rich applications, including offsets, tie distance, area & volume, remote height, reference line/arc, construction, and 2D road, to meet your field measurement needs.

High Quality, Designed for Harsh Environments

Operate the device even under harsh environments (like dust, mud, rain, extreme heat, and cold) for many years, supported by its high level of quality.

Multiple Interfaces

Supports RS-232C(6-pin). The user can update firmware and SD card, and mini-USB that the user can import and export data.

Datasheet

eTS5 HIGH PRECISE TOTAL STATION

The eSurvey eTS5 is a high-precision manual total station, with 2" angle measurement accuracy that meets most survey and stakeout tasks. With Dual QVGA color screens and friction screws, the USB interface makes measurement more efficient. The 3400 mAh battery works continuously for long hours. LED-backlight alphanumerical keyboard makes it possible to operate correctly in the dark.

Easy for Survey

Measure more points per day, benefitting from the trigger key and guide light for instant measuring and stakeout and LED-backlight alphanumerical keyboard for operating in dark scenes.

Time-saving but High Efficiency

Enjoy smooth movements with no delayed response time for no need to manually lock the shaft once the target is aimed, supported by endless drives.

Longer Distance in Reflectorless Mode

Measure distance in reflectorless mode within 1000 m.

Rich Data Interfaces for Convenient Data Exporting

Quickly and easily export the measured data via the USB flash drive for data processing.

Less Workload

Greatly reduce your workload from semi-automatic data collection, and check digital information to make your work easier, supported by Bluetooth function.

Datasheet

eTS8 ANDROID SMART TOTAL STATION

The eSurvey eTS8 is a high precision manual total station, with accurate angle and distance measurement. It can work reliably and deliver good results even in harsh environments. And its simple operations make most survey and stakeout tasks more efficiently.

Android 11.0 Operating System: Powerful and Intelligent

Upgrade software and customize functions based on different needs. Powered by the open platform and high stability of the Android 11.0 operating system, enjoy fast processing of large amounts of data. The system can easily run complex computing programs with an MT6762 core processor, 4GB RAM, and 64GB ROM.

5.5-inch HD (720 x 1280) Display: Touchable and Interactive

Easily input data with the humanized interactive interface.

Comprehensive Interface for Data Communication

Quickly and easily achieve data communication via the built-in Bluetooth, Wi-Fi, Wi-Fi hotspot, 4G module, and USB interface; experience efficient transmission and intelligent interconnection through the Internet and cloud platform.

Highly Scalable Development Kit: Rich APP Expansion

Customize the development of functions for different scenarios, thanks to the high-performance secondary development program.

Map Loading and Visual Graphic Importing

Check the spatial location relationship between measurement points and instrument stations to inspect and plan your survey work, with the large-capacity 2D maps loaded online. Control the survey area at any time and compare with the actual measurement work results in real-time, according to the DWG visualization graphics.

Datasheet

ESL2 PRECISE AUTOMATIC LEVEL

The eSurvey ESL2 is suitable for geodetic control, construction of roads, and industrial applications. The ESL2 with ESM1 can supply higher accuracy and work to monitor structural deformations. The use of an automatic compensator speeds up work and improves accuracy. ESL2 operates in the range of temperatures from -30°C to +50°C .

One Key for Compensator Checking

Directly check the compressor by the specific press button.

Dismountable Eyepiece

Comfortably observe steep sights with a diagonal eyepiece, up to the zenith, by taking away the original eyepiece and fitting on the diagonal eyepieces.

Compensator of Air Damper

No longer need to worry about the interference from ambient magnetic fields, for the air damper can reduce shakes to guarantee the accuracy and efficiency of measurement even in complex environments subject to vibration or shock.

Parallel Plate Micrometer

A parallel plate micrometer helps the user read more accurately, and measure more precisely.

Easy to Use

Able to complete the survey job in no time.

Use in Multiple Scenarios

Use the ESL2 in Industrial measurement, topographic surveys, deformation monitoring, etc.

Datasheet

ESL3 MAGNETIC DAMPING AUTOMATIC LEVEL

The ESL3 is equipped with a magnetic damping compensation system which has a large compensation range and a high compensation accuracy compensator to ensure the equipment accuracy and measurement efficiency even in a complex environment subject to vibration or shock. 32x magnification, 38mm large clear aperture equipped with 550nm coating ensuring fast and smooth measurement. The all-metal body and IP66 design ensure the ESL3's strong environmental adaptability.

Magnetic Damping Compensation System: Making Accuracy More Stable

Enjoy a better measurement experience with a compensation range of ±15' and quick leveling 1.5s, powered by the magnetic damping compensation system that guarantees the accuracy and efficiency of measurement even in complex environments subject to vibration or shock.

Clearer, Brighter and More Relaxed

Enjoy clearer readings with 32 times magnification, greater clear aperture with 38 mm, and long-term observation without fatigue with 550 nm coating.

Full Metal Body Design

Experience metal body that makes the ESL3 rugged and durable while shielding interference to the compensator system from the external environment and ensuring accurate and reliable measurement accuracy.

IP66 Certified

No longer need to worry about using the ESL3 even in dusty and humid environments, and easily handle complex working conditions.

Light and Compact

The compact design makes the ESL3 easy to carry.

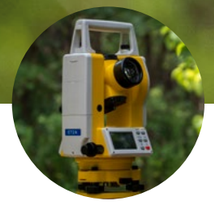
Simple Operation

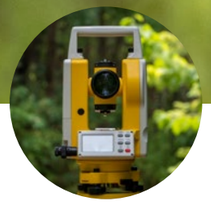
Simple interface button to let the measurement without trouble.

Datasheet

ET2A PRECISE ELECTRONIC THEODOLITE

The ET2A is a high-precision electronic theodolite. This device has 2" angle measurement accuracy and a 30x magnification effect to meet various working requirements.





Absolute Coding

Experience complete coding angle measurement system that is digital, intelligent, stable, and reliable.

Laser Function

Experience a perfect combination of digital theodolite and laser, with laser pointing and laser centering function.

High Quality, Designed for Harsh Environments

Operate the device under harsh environments (like dust, mud, rain, extreme heat, and cold) for many years with a highly integrated circuit board, high-quality IC components, and imported CCD sensor.

Smart Sensor

You no longer need to worry about tilt errors, for the independent tilt sensor will automatically correct tilt errors.

Long Operation Hours

1600 mAh rechargeable Li-on battery support working for about 20 hours.

Digital Readings

Digital readings are quick and reliable, making the measurement more efficient.

Datasheet

Radio & Antenna

eSurvey external radio models are base radios for wireless applications. They can provide reliable data communications for mission-critical applications where a combination of stability, supreme performance, and long-range are required.

eSurvey GNSS antenna can provide multi-frequency satellite signals for the whole constellation to reference stations and rover stations. More stable data can be derived from its high gain design.

TRU35

UA35

UA92

TRU35

ADVANCED & RUGGED EXTERNAL RADIO FOR A LONG-DISTANCE TRANSMISSION

The eSurvey TRU35 is a high-power, small-size, half-duplex digital radio model, which is designed using advanced 32-bit cortex M4 micro-controller technology, wireless transceiver RF technology, and digital communication technology. It uses high-quality RF components, excellent EMC and EMI processing.

Wireless Connection

Achieve connection with the receiver via cable or Bluetooth.

Convenient Configuration

Directly configure the TRU35 by SurPad software, independently developed by eSurvey GNSS, via Bluetooth, including its mode, protocol, baud rate in the air, frequency, and power level.

Over Voltage Protection

With the two-stage surge protection, no longer a need to worry about damage to the TRU35 when the input voltage or current exceeds the normal range of positive and negative stages are reversed.

Thermal Protection

No longer worry about the effect of temperature on the power, for the TRU35 can adaptively adjust the transmit power, automatically reduce the power when the temperature is too high, and increase the intensity when temperature decreases to ensure the TRU35 is always in a stable power range and will not be damaged by overheating.

Standing Wave Detection Protection

No longer worry about damages caused by a long-time open circuit or short circuit.

Long Transmission Distance

The transmission distance can reach up to 14 km with high power operating under optimal conditions.

Datasheet

UA35

GNSS ANTENNA

The eSurvey UA35 covers the reception of GNSS signals such as GPS, GLONASS, BDS, Galileo, QZSS, and L-Band. It has the superior performance of the antenna phase center. Its small size and light weight make it easy to carry around and operate.

Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS, QZSS, and SBAS) of GNSS tracking.

Superior Antenna Phase Center

Further, improve the reliability of your measurement work due to the coincidence of the phase center and mechanical center that can make the phase center error less than 2 mm.

Small size and Light Weight

Easily carry it in a variety of complex environments.

High Gain (GPS L1 > 6 dBi, GPS L2 > 5 dBi)

Experience strong GNSS satellite tracking ability, and make your measurement work and data more reliable due to the excellent antenna gain.

Rugged Design

Use it for many years with IP69K design that is protected against the ingress of dust and high temperature, high-pressure water - making products with this certification ideal for use in conditions where equipment must be carefully sanitized.).

Excellent Axial Ratio Performance

Axial ratio ≤6 dBi makes the UA35 antenna performance better.

Datasheet

UA92 HIGH-GAIN CHOKE RING ANTENNA

The eSurvey UA92 is a multi-system full-frequency reference station antenna covering BDS, GPS, GLONASS, IRNSS, QZSS and GALILEO. It adopts a unique choke structure design. The product has a stable phase center, good multipath suppression effect, high positioning accuracy, and low elevation angle reception.

Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS, QZSS, and SBAS) of GNSS tracking.

High Phase Center Accuracy

Experience sub-millimeter phase center accuracy with higher stability.

Excellent Multipath Suppression Effect

No longer need to worry about interference by multipath due to the unique choke coil design.

High Gain (≤5.5 dBi)

Experience strong GNSS satellite tracking ability, and make your measurement work and data more reliable due to the excellent antenna gain.

Rugged Design for Harsh Environments

Use it for many years with IP67 design, which is 95% protected against solid objects like dust and sand, and it has been tested to work for at least 30 minutes under 15 cm to 1 m of water.

Multiple Applications

The UA92's compact size and light structure can be used for machine control, deformation monitoring, Marine mapping, and other fields.

Datasheet

Software

eSurvey's software is professional, advanced, innovative, and designed for surveying, base station construction, and GIS data acquisition:

- Surpad4.2: convenient and easy-to-use data acquisition software, owning a wealth of measurement functions and making the surveyor's work more efficient and comfortable.
- GEOsolution: powerful post-processing software, owning many preset coordinate systems and advanced data processing algorithms to process static data and obtain reliable results quickly.
- GNSS.Net: a new generation of VRS system management software, able to generate virtual base stations near mobile rover stations by processing data from multiple physical base stations, which greatly improves the distance of base stations and the measurement accuracy of rover stations.

SurPad4.2

SurPad4.2 POWERFUL COMPREHENSIVE FIELD DATA COLLECTION SOFTWARE

Based on the Android platform, the eSurvey SurPad 4.2 software is designed to assist professionals with all types of land surveying projects in the field. Combining with the international mainstream of surveying and mapping data acquisition function, it integrates with professional receiver control, point collection, stakeout, GIS data collection, road measurement, road design, cross-section measurement, railway stakeout, and COGO functions. Its comprehensive functions enhance users' work efficiency.

Powerful Functions

Enjoy the powerful functions, including tilt survey, CAD, line stakeout, road stakeout, GIS data collection, COGO calculation, QR code scanning, FTP transmission, etc.

Easy-to-use UI

Freely choose the desired display style, including list, grid, and customized style, and enjoy easy operations with graphic interaction, including COGO calculation, QR code scanning, FTP transmission, etc.

Compatible with Any Android Devices

Use it on all Android devices (Android 7.0 and above), including eSurvey handhelds, Android phones, tablets, and other third-party Android devices.

Abundant Formats for Importing and Exporting

Directly import and export files with frequently used formats and customized formats.

Advanced Display of Base Maps

Supports the import of different formats of base maps including, but not limited to AutoCAD formats (DXF, DWG), SHP and Land XML, which provides a more user-friendly experience during fieldwork.

Powerful CAD Function

The powerful CAD function built in Surpad4.2 supports the import, export, creation, and editing of CAD graphics either on or outside of the field.

Key Functions

- More comprehensive and rich survey and stakeout functions to improve the efficiency of your work.
- Multiple road designs, road measurement, cross section stakeout, etc.
- Rich built-in coordinate system parameters for surveying and mapping without creating it by yourself, which is time-saving and trouble-saving.
- With GIS data collection, the information on various map attributes, facilities, assets, and organizational data can be digitized and organized on a target GIS system in appropriate layers.
- Rich COGO calculation for solving your coordinate geometry problems:
- Advanced CAD data management, supporting drawing CAD objects, importing files of DXF, DWG and XML formats, and exporting files of DXF format.
- Optimized tilt survey correction algorithm and procedure to boost your efficient fieldwork.

Datasheet

GEOSolution

SIMPLE & INDISPENSABLE POST PROCESSING SOFTWARE

Simple and powerful post-processing software, owning many preset coordinate systems and advanced data processing algorithms to process static data and obtain reliable results quickly.

Rich Preset Coordinate System

Satisfy all your coordinate system needs with numerous built-in options. Customize and export your coordinate system parameters to suit your specific requirements.

PPK Data and Static Data Supported

Quickly and accurately process static and PPK data, making your job easier.

Output Format Customizable

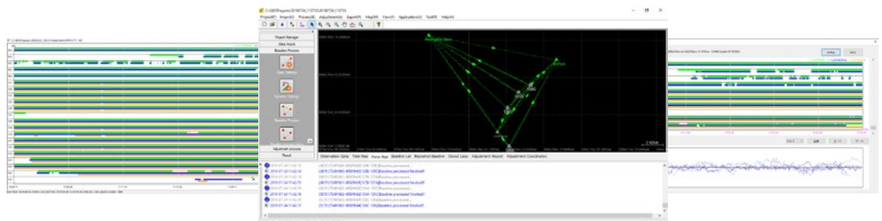
Customize the format of the output results, allowing you to output your measurements more quickly and efficiently.

Standard Data Processing Reports

Know the accuracy and results of baseline and measurement differential solutions via the informative reports on Static data processing.

Safely Stored Projects

The entire process, including baseline solution, network adjustment and other operations, can be operated in the project folder. All operations are automatically recorded.



Datasheet

GNSS.NET

VRS Management Software

GNSS.NET is the software to combine multiple base stations as a network providing VRS service. It includes functions such as station management, user management, physical base station data transmission, VRS service, coordinate system transmission. The system includes two parts “GNSS.NET Reference Data Process Center” and “GNSSCaster”. The first part software is used to manage reference stations and connect all stations as a network to provide VRS service. The second part software is used to create mountpoints and manage user account.

Multiple Differential Format for Data Output

Output multiple differential formats, including CMR, RTCM2, RTCM23, RTCM31, and RTCM32.

Source Node Broadcast for VRS and Nearest

Freely choose source node types, including the VRS source node, the differential source node of the actual base station, or the differential source node of the nearest real base station.

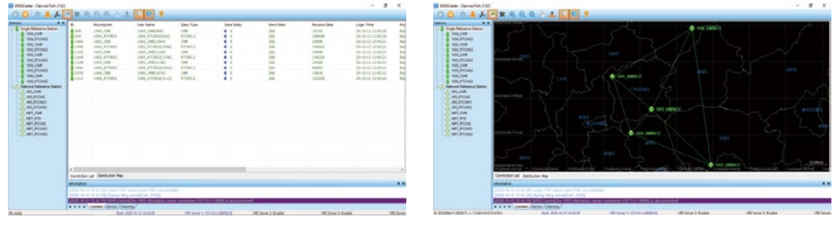
Multiple Protocols Allowing Access to Base Station Data from Other Vendors

Achieve a network solution whose data is from the original observation data (RTCM3 format) and multiple manufacturers, including Trimble, Hemisphere, and Novatel, and achieve communication via the serial port, TCP, Ntrip, etc.

Multi-level Account Management on Website

Log in to the web-based management platform as an administrator or end-user:

- Administrator: including viewing base station information, managing bills, managing coordinate system, managing Ntrip users, monitoring the server, etc.
- End-user: querying information, checking station information, downloading static data, viewing track, etc.



Datasheet

CORS Solution

As the infrastructure of the high-precision positioning industry, CORS service can bring great convenience to you to obtain high-precision positioning. CORS service can help you achieve the following:

- No longer need to set up a separate base station to obtain centimeter-level positioning.
- Do your RTK measurement even without known point coordinates.

You can use the CORS service to get centimeter-level positioning in the following terminals where is within the CORS service coverage:

1. GNSS receivers for field construction measurements
2. Handheld GIS collectors
3. Agricultural precision control navigation devices
4. Other high-precision positioning terminal devices supporting CORS connection

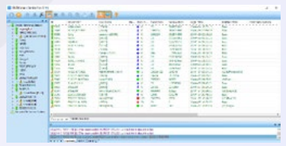
eSurvey CORS solution includes the following:

- GNSS receiver: NET10 , NET20 Plus
- Antennas: UA92
- Single base station service software: GNSSCaster
- VRS multi-base station service software: GNSS.NET

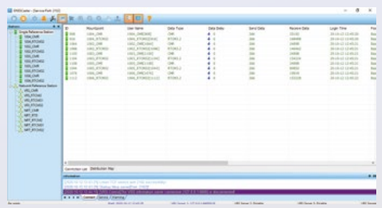
NET10

NET20 Plus

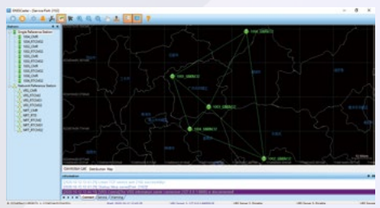
UA92



GNSSCaster



GNSS.NET



GNSS.NET

You can freely choose one of the following eSurvey CORS solutions:

- A combination of CORS GNSS receiver, CORS antenna, and single base caster software, using our solution in a small area.

  Good RTK positioning results can be achieved in the area with the base station as the center of the circle and within a radius of 10 km.

- A combination of CORS GNSS receiver, CORS antenna, and single base caster software, using our solution in a small area.

  A combination of CORS GNSS receiver, CORS antenna, and VRS multi-base software for a geographical area with complete coverage of CORS service.
  Better RTK positioning results can be achieved in the net-shaped area composed of all base stations.

e-survey