KOLIDA
Professional's Choice

SUPER RTK K83

Your powerful helper for demanding applications!

AN ADVANCED SOLUTION FOR LAND & MARINE SURVEY CONSTRUCTION

The development of K83 positioning system GNSS receiver and antenna was based on the advanced surveying and GNSS technology. KOLIDA offers this flexible and high-performance system to meet your diverse work needs on both simple and complex projects.

Multi-constellation Trimble GNSS mainboard ensures faster initialization and re-acquisition of satellite

Flexible antenna separation enables users to maximize precision and convenience.

With its built-in OLED screen, internet module (3G/ 4G/ WiFi), transceiver UHF radio (3W), Linux operation system, K83 can work as radio/ network base, radio/ network rover, as well as Continuously Operation Reference Station, to meet the demands of a wide range of land and marine constructions and survey applications. (Construction survey, hydrographic survey. machine control, deformation monitoring.)

REFERENCE STATION

EVERYONE CAN SETUP IT WITHIN 2 HOURS WITH 0 EXPERIENCE

RAPID DEPLOYMENT, SMART OPERATION

Even a novice user with zero experience can setup this reference station within 2 hours. The system is suitable for both permanent and temporary installation. According to different mission type and project schedule, user can move the location of reference station as he needs.

WORKING WITHOUT FIXED NETWORK COVERAGE

With the integration of GNSS positioning and wireless mobile internet technology, setting up reference station is no more limited by the condition of telecommunications infrastructure. With fixed network, K83 can access internet via Ethernet cable or WiFi, without fixed network K83 still can access internet via mobile SIM card. Without internet access, K83 still can broadcast correction data by its robust UHF radio.

WISE INVESTMENT, LOW RUNNING EXPENSE

Setup reference station by K83, user doesn't need to apply and purchase fixed IP address from telecom providers, also doesn't need to purchase PC server and other hardware devices, as well as reference station software.

When compared with traditional CORS, the system maintenance cost and management cost of K83 system is incredibly low.

ROVER ON VESSELS AND VEHICLES

EASILY DEMPLOYED AND SAFELY MANAGED

SAFE AND EASY TO HANDLE

When it works as rover station, the separate-type satellite antenna can be installed on the top of vessel or vehicle, K83 receiver can be installed inside the cab. It is more safe and easier to operator to control the system.

HIGH-PRECISION POSITIONING AND NAVIGATING

K83 system includes one set of positioning satellite antenna, and also reserves a port of directional antenna. It enables the system to determine the real-time position, heading, elevation which will be used for vessel/ vehicle navigation in piling, dredging, riprapping, cable and pipeline laying and other applications.

UNINTERRUPTED WORK

K83 can work tens of hours continuously, it accepts different ways of power supply: AC, UPS, battery case, you don't need to stop work for changing battery.

The water/dust protection grade of K83 is higher than traditional GNSS receiver.

Intelligent temperature control program helps K83 works in extreme temperatures (-45 to +60℃), intended for the most demanding applications.

Specifications

Measurement	Advanced Trimble BD970 GNSS Chips 220 channels GPS L1C/A, L1C, L2C, L2E, L5 GLONASS L1/C, L1P, L2C/A, L2P, L3 BEIDOU B1, B2, B3 SBAS L1C/A, L5 GALILEO GLOVE-A, GLOVE-B, E1, E5A, E5B QZSS, WAAS, MSAS, EGNOS, GAGAN, SBAS
SBAS (WAAS/ EGNOS/ MSAS) Positioning	
Accuracy	Better than 5m 3DRMS (16ft)
Code Differential GNSS Positioning	
Horizontal Accuracy	0.25m+1ppm RMS (0.8ft + 1ppm RMS)
Vertical Accuracy	0.50m+1ppm RMS (1.6ft + 1ppm RMS)
Real-Time Kinematic Positioning	
Horizontal Accuracy	8mm +1ppm RMS (0.026ft + 1ppm RMS)
Vertical Accuracy	15mm +1ppm RMS (0.05ft + 1ppm RMS)
Real-Time Kinematic Positioning	
Horizontal Accuracy	8mm + 0.5 ppm RMS (0.026ft + 0.5 ppm RMS)
Vertical Accuracy	15mm + 0.5 ppm RMS (0.05ft + 0.5 ppm RMS)
Static	
Horizontal Accuracy	2.5 mm + 0.5 ppm RMS (0.008ft + 0.5 ppm RMS)
Vertical Accuracy	5.0 mm + 0.5 ppm RMS (0.016ft + 0.5 ppm RMS)
Initialization Time & Reliability	Typically less than 8 seconds, reliability > 99.9%
General	
Operation System, Keyboard and Display	Linux system, two-buttons keyboard, 0.96 inch OLED screen
Indication light	4 indicator lights
Dimension (L x W x D) & Weight	18.4 cm x 14.8 cm x 6.8 cm, 1.24 kg
Temperature & Proof	
Operation & Storage	-45 ℃ to + 60 ℃, -55 ℃ to + 85 ℃
Humidity & Waterproof	100% Non-condensing, IP65, dustproof
Shock	Designed to survive a 1.5m pole drop onto a hard surface
Communication	
Interface	Network antenna socket, UHF radio antenna socket, 5-pin LEMO, 7-pin LEMO (USB OTG), SIM card Slot, RJ45 Ethernet port
UHF Radio	Fully-integrated, internal 410-470 MHz Tx/Rx, 1/2/3W, TrimTalk450s. TrimMark3, PCC EOT, SOUTH protocol
GSM/ GPRS Modem	WCDMA 3.5G modem, GPRS/EDGE compatible, TDD-LTE/ FDD-LTE/ TD-SCDMA 4G
WiFi	802.11b/g standard; Other smart device can access K83's WiFi hot spot; K83 can access other WiFi to broadcast data
Bluetooth	Bluetooth 4.0 standard supports connection with Android and IOS device; Bluetooth 2.1 + EDR Standard
Data Storage & Transmission	
Storage	8GB SSD internal memory; External USB OTG; Cyclic storage program automatically release memory space
Data format	Static: STH, Rinex 2.x, Rinex 3.x Differential Data input and output: CMR+, CMRX, RTCM2.1, RTCM2.3, RTCM3.0, RTCM3.1, RTCM3.2 GPS output: NMEA 0183, PJK plane coordinates, binary code, Trimble GSOF Network Mode: Fully support NTRIP protocol

Semi-permanent Reference Station

Related Products for Land Survey

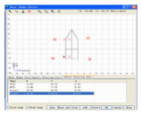
K9mini VRS (Network Rover)

S680P

K6 (Hi-precision GIS data collection terminal)

S660P

Related Products for Marine Survey



Echo Sounder SDE-28S+ and navigation software PowerNAV

KOLIDA Instrument

www.southgeosystems.com
sales@southgeosystems.com

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