

SPECIFICATIONS

Satellite Signals Tracked Simultaneously	
Signal tracking	220 channels BDS B1,B2,B3 GPS L1C/A,L1C,L2C,L2E,L5 GLONASS L1C/A,L1P,L2C/A,L2P,L3 SBAS L1C/A,L5 (just for the satellites supporting L5) Galileo GIOVE-A,GIOVE-B,E1,E5A,E5B
GNSS features	Positioning output rate:1Hz~50Hz Initialization time:<10s Initialization reliability:>99.99%
Positioning precision	
Code differential GNSS positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50m+1ppm SBAS positioning accuracy:typically<5m 3DRMS
Static GNSS surveying	Horizontal: ±2.5mm+0.5ppm Vertical: ±5mm+0.5ppm
Real-time kinematic surveying	Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm
Network RTK	Horizontal: ±8mm+0.5ppm Vertical: ±15mm+0.5ppm
RTK initialization time	2~8s
User interaction	
Operating system	Linux
Buttons	Single button operation
Indicators	Three LED indicator lights
Web UI	Freely to configure and monitor the receiver by accessing to the web server via Wi-Fi and USB
Voice guide	iVoice intelligent voice technology provides status and voice guide Supporting Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
Secondary development	Providing secondary development package
Hardware performance	
Dimension	134 x 134 x 118 (mm)
Weight	1kg(battery included)
Material	Magnesium aluminum alloy shell
Operating	-45°C~+60°C
Storage	-55°C~+85°C
Humidity	100% Non-condensing
Waterproof/Dustproof	IP67 standard, protected from long time immersion to depth of 1m IP67 standard, fully protected against blowing dust
Shock and vibration	Withstand 3 meters pole drop onto the cement ground naturally
Power Supply	9-25V DC, overvoltage protection
Battery	Rechargeable, removable Lithium-ion battery, 7.4V; standard four batteries power package(optional)
Battery life	Single battery: >7h (static mode), >5h (internal UHF base mode), >6h (rover mode)
Communications	
I/O port	5PIN LEMO external power port + RS232, 7PIN external USB(OTG)+Ethernet 1 radio antenna interface, SIM card slot
Wireless modem	Built-in radio, 1W/2W/3W switchable, typically work range can be 8KM Radio and internet repeater switchable
Frequency Range	410-470MHz
Communication Protocol	TrimTalk450s, TrimMark3, PCC EOT, SOUTH
Cellular Mobile Network	WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G network modem, downward compatible with 3G GPRS/EDGE
Double Module Bluetooth	BLEBluetooth 4.0 standard, support for android, ios cellphone connection Bluetooth 2.1 + EDR standard
NFC Communication	Realizing close range (shorter than 10cm) automatic pair between receiver and controller (controller equipped NFC wireless communication module needed)
External Devices	Optional external GPRS/EDGE dual-mode communication module, switchable; allow to connect external WLAN card
WIFI	
Standard	802.11 b/g standard
WIFI Hotspot	The WIFI hotspot allows any mobile terminal to connect and access to the internal webserver for the control and monitor receiver
WIFI data link	To work as the datalink that receiver is able to broadcast and receive differential data via WIFI
Data storage/ Transmission	
Data Storage	8GB SSD internal storage Support external USB storage (up to 32GB) and automatical cycle storage Changeable record interval, up to 50Hz raw data collection
Data Transmission	USB data transmission, supporting FTP/HTTP data download
Data Format	Differential data format: CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2 GPS output data format: NMEA 0183, PJK plane coordinates, Binary code, Trimble GSOF Network model support: VRS, FKP, MAC, fully support NTRIP protocol
Inertial sensing system	
Tilt survey	Built-in tilt compensator, correcting coordinates automatically according to the tilt direction and angle of the centering rod
Electronic bubble	Controller software display electronic bubble, checking leveling status of the centering rod real time
Thermometer	Built-in thermomter sensors, adopting intelligent temperature control technology which can mornitor and adjust the temperature of receiver in real time

KOLIDA

K5 Plus +

Intelligent GNSS Receiver



- GPS+GLONASS+BEIDOU+GALILEO
- WebUI Management Platform, WiFi
- Radio Router/Radio Repeater
- Intelligent Embedded LINUX OS, Internal 8GB SSD

KOLIDA
KOLIDA INSTRUMENT

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K5 PLUS+ One Step Ahead GNSS Receiver

Key Features

World-Leading Positioning Technology

Equipped with the most advanced GNSS positioning technology, K5 PLUS+ will provide you an awesome working experience.

Featuring an ultra-powerful GNSS mainboard, K5 PLUS+ can track and process signals from GPS, GLONASS, BEIDOU, GALILEO and SBAS systems. With this superior multi-Constellation compatibility, the satellite availability, signal acquiring speed are greatly improved, the waiting time has been shortened and the positioning accuracy (RTK) is up to 8mm+ 1ppm in horizontal and 15mm+ 1PPM in vertical.

Versatility and Flexibility

Every unit of K5 PLUS+ can work as base receiver or rover receiver. The built-in transceiving radio can transmit signal to 1-5km away even farther. The integrated 4G/GPRS module enables seamless real time connection with CORS networks. Bluetooth 4.0 technology supports the connection to IOS, Android cell phone and all kinds of data collector.

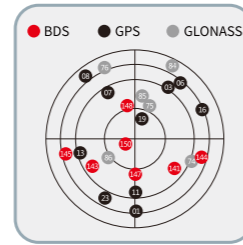
A newly-designed Smart Power Management program can reduce energy spill and extends working hours. Smart Voice Prompt program can guide your operation and system trouble-shooting.

Smaller but Stronger

K5 PLUS+ is one of the smallest GNSS receivers in the world, the diameter of the top end is only 134mm, the height of receiver is 118mm, total volume is 1.02L and it weighs only 1KG.

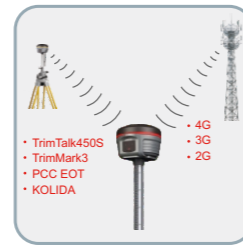
Magnesium alloy materials create an extremely rugged, compact and light machine body for K5 PLUS+. The anti-impact ability, shock absorbing ability and heat dissipation ability are greatly improved.

The whole-seal design brings K5 PLUS+ an IP 67 level industrial class proof ability, makes the receiver withstand all kinds of stresses from harsh environment.



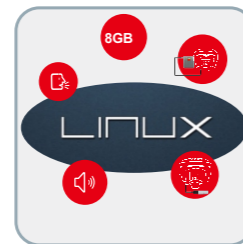
Full satellite constellations support

Equipped with most advanced GNSS boards, KOLIDA K5 PLUS+ system can track most signal from all kinds of running satellite constellation, especially support B1, B2 and B3 signal from BeiDou, also is able to get position result with only BeiDou signal.



Advanced data-link module

Integrated with new and excellent datalink system, KOLIDA K5 PLUS+ is compatible with current radio protocols in the market, also supports all kinds of network types to access CORS seamlessly.



Intelligent and Efficient

Embedded LINUX OS improves RTK working more efficiency. Internal 8Gb SSD and supports external USB storage. Intelligent iVoice broadcast receiver status and guide the surveyors in real time. Multi-language is supported.



Extremely small

KOLIDA K5 PLUS+, with innovative design, the size of the RTK receiver is extremely small and the weight is only 1kg. With Multi-layer shielding technology, we solve the Interference problem even in the very small size, which ensure the accuracy and stability of the RTK receiver.

New Features of K5 series

Tilt survey

Tilt Survey function is to help surveyors to directly measure a corner or edge of an object. Within the tilt range of 30 degrees, Tilt Sensor can correct the measuring result according to tilt angle and direction.



Electronic bubble calibration

Electronic bubble function is designed to help surveyors to make centering easier and faster. While measuring a point, users don't need to observe physical bubble anymore but controller screen only.



NFC function

The internal NFC module can make the complicated bluetooth communication more simple and easier.



Easy to carry

A newly designed carrying case is provided with K5 PLUS+, it is thick but light, can sufficiently prevent the receiver from damaging on inadvertent collision. The total weight of receiver with the new design soft bag is 30% lighter than before.



New Technology on K5Plus+

Web UI

Embedded Web UI management platform supports WIFI and USB connection. Users can monitor the receiver status and configure the receiver via web browser on PC/SmartPhone.

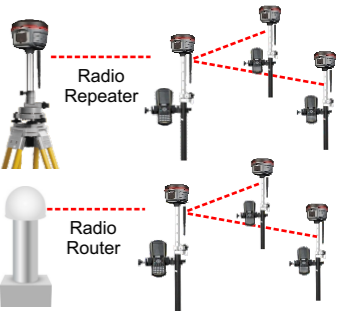


Wi-Fi

Wi-Fi module on K5Plus+ can be used as data link to access to internet or a hotspot that be accessed by smart devices to configure the receiver.

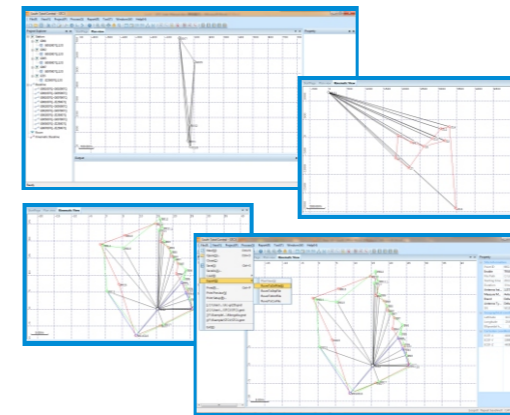


Radio repeater: The rover can broadcast the corrections via internal radio to other rovers after received the radio differential signal.



Radio router: The rover can broadcast the corrections via radio to other rovers after receiving the network differential signal.

KOLIDA Total Control Software



KTC is a new post-processing software that integrates static data processing and kinematic adjustment

- Antenna manager with popular receiver types.
- Compatible with numerous data format.
- Update online.
- Abundant report exporting.

Post-processing software: KOLIDA GNSS Processor

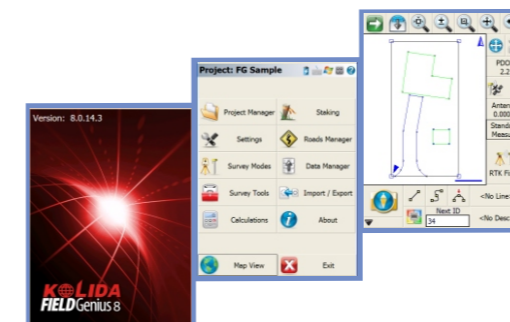
- Fast processing and clear display
- Transformable to RINEX format
- Full options for result Export
- Powerful baseline settings
- Manually edit and filter satellite data for best result

Field Software



KOLIDA All-In-One Software Engineering Star

- Engineering Star is the most welcomed field software in China. Even a novice can do all complex GNSS survey with EStar with only six buttons on one screen.
- At any time, you can check your hardware and software status, RTK working mode and switch screen freely.
 - Easy to handle multiple RTK surveying with powerful, but friendly user interface.
 - Support numerous file formats in export/import.



MicroSurvey FIELDGenius

Field Genius is a powerful survey data collection software from Canada. Advanced Roading, Surfacing, Slope Staking, Code Free Linework, Smart Points and GPS support and Live Graphics make FieldGenius the choice of organizations that value productivity. Multi-language is available. (Need to purchase individually)