SPECIFICATIONS

GNSS Performance	
Channels	2048
GPS	L1C/A, L2P, L1C, L2C, L5
GLONASS	G1, G2, G3
BeiDou	B1I, B2I, B3I, B1C, B2a, B2b
Galileo	E1, E5b, E5a, E6, E5AltBoc*
QZSS	L1C/A, L5, L1C, L2
SBAS	L1, L5
IRNSS	L5*
L-Band*	B2b

Positioning Accuracy	
Code Differential GNSS Positioning	Horizontal: ±0.25m+1ppm Vertical: ±0.50+1ppm
SBAS Positioning	Typically<5m 3DRMS
High Precision Static	Horizontal: ±3mm+0.1ppm Vertical: ±3.5mm+0.4ppm
Fast Static and Static	Horizontal: ±2.5mm+0.5ppm Vertical: ±5mm+0.5ppm
Post Processing Kinematic (PPK)	Horizontal: ±8mm+1ppm Vertical: ±15mm+1ppm
Real Time Kinematic (RTK)	Horizontal: ±5mm+0.5ppm Vertical: ±10mm+0.5ppm
Network RTK (VRS, FKP, MAC)	Horizontal: ±5mm+0.5ppm Vertical: ±10mm+0.5ppm
RTK Initialization	Time 2-8s, reliability >99.99%
Positioning Rate	1Hz-20Hz
Tilt Sensor (Inertial Measurement Unit with E-Bubble)	Tilt Angle: up to 60 degrees Accuracy: down to 2cm (Typically less than 10mm+0.7mm/°tilt)

Data Formats	
Positioning Data	NMEA 0183, PSIC, PJK, Binary Code
Differential Correction	RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1 RTCM 3.2 (MSM),CMR,CMR+
Static	STH, Rinex 2, Rinex 3
Network	Supported VRS, FKP, MAC, Ntrip

Operation Mode	
Base	Base Internal Radio\ Base Network\ Base External Radio\ Base WIFI
Rover	Rover UHF\ Rover Network\ Rover Bluetooth
Static	Static\ PPK

UHF Radio Chracteristics	
TX\RX	Transmitting and Receiving
Frequency Range	410-470MHz
Protocols	Farlink\ Trimtalk\ SOUTH(KOLIDA)
Channels	60 channels for Farlink protocol 120 channels for other protocols

Hardware	
Size	156mm*78mm
Weight	1.3kg (dual batteries included)
Data Storage	8GB SSD internal storage Support external USB storage (up to 32 GB) Automatic cycle storage Changeable record interval Up to 20Hz raw data collection
Communication	4 Indicator lights 1 Button 1 Type C USB port (USB2.0) 1 5-PIN LEMO external power port (to RS232) 1 UHF antenna port 1 Micro SIM card slot Linux OS WEB UI WIFI: 802.11 b/g/n standard Bluetooth 4.2 standard and Bluetooth 2.1+EDR Network: 4G LTE\3.5G WCDMA\2G GSM\GPRS NFC Supported USB, FTP, HTTP data communication
Voice Guide	Intelligent voice technology provides status indication and operation guide Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define
Environment	Operating: -30°C to +70°C Storage: -40°C to +80°C
Humidity	100% condensation
Ingress Protection	IP68 waterproof, sealed against sand and dust
Shock	Survive 2m pole drop on concrete

Power	
Battery	7.2V, 3400mAh battery, two units, hot swappable
Battery Life	Base up to 10 hours Rover up to 15 - 20 hours Static up to 20 hours
USB recharge	Power Bank Supported

KOLIDA Professional's Choice

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KOLIDA Professional's Choice

K10 Pro X

The Power to Be Your Best

*** 2048 GNSS channels, best-in-class signal tracking capability**
*** GPS + GLONASS + BDS + GALILEO + QZSS**
*** Centimeter level correction data through L-band**
*** 2 watt Farlink radio, up to 8-10 km working range**
*** Inertial Measurement up to 60° tilt angle down to 2cm accuracy**
*** Dual battery hot-swappable, Up to 20 hours working**

X SERIES

Craftsmanship and Quality,
The Power To Be Your Best.

Quality Materials & State-Of-Art Features

Add them together,
Multiply their power.

A brand new powerful UHF radio.
An inertial measurement sensor so responsive and more accurate.
The world's leading GNSS chip.
Exceptional durability.
And a huge leap in battery life.

K10 Pro X, the power to be your best.

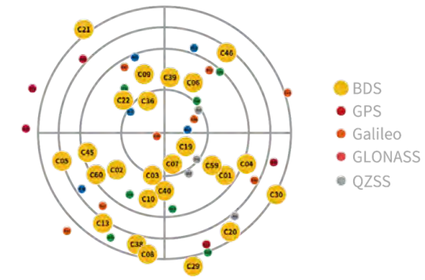
The Only Thing That Changed Is Everything.

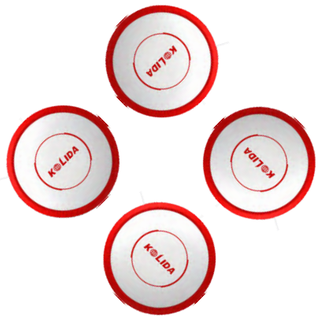
2048 channels

Capture satellites
As many as possible

In a period of time, some GNSS satellites disappear from horizon and new satellites appear. Bigger number of satellites a GNSS receiver tracks at a time, better accuracy the GNSS can calculate. To quickly capture the new satellites that appear in the sky, GNSS receiver must reserve a big number of channels.

K10 Pro X is capable to track signal from 5 satellite constellations (GPS, Glonass, Beidou, Galileo, QZSS), process signal of up to 16 frequencies. When compared to traditional GNSS RTK, K10 Pro X's accuracy is higher, get fixed solution faster, the working performance in forest and city center is better.





Top Cap and Seal Ring

Long service life,
Enhanced signal reception.

The top cap of K10 Pro X is made of PBT + PC materials, which provides a good performance of fire prevention, anti-deformation. GNSS signal will be received evenly from all directions.

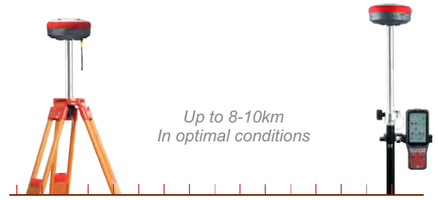
A silicone seal ring is placed overhead to extend the service life. It withstands high temperature, resists wear and corrosion. The diamond shape texture prevents the receiver from falling off on your hands.

Farlink Radio

Transmit mass data
Small power consumption

When GNSS receiver is using signal of bigger number of satellites, the data amount to send and receive by UHF radio increased greatly. The traditional radio protocol is unable to meet the demand. Farlink technology is developed to send large number of data and avoid data loss.

Farlink technology improves the signal-catching sensitivity from -110db to -117db, so K10 Pro X can catch the very weak signal from a base station far way.



Bodywork and Colorful Indicator Light

The extraordinary
robustness you can rely on.

The robust bodywork is made of magnesium alloy AZ91D, which offers high strength, excellent heat dissipation. A metallic paint surface treatment has been applied to the lower part of K10 Pro X, to prevent the receiver from scratching, collision, rustiness.

The four-color indicator lights of K10 Pro X offer high brightness, is easy to identify in both day and night.

The 3rd generation Tilt Sensor

Faster initialization
More accurate data output

KOLIDA's 3rd generation tilt sensor "M8" integrates Inertial Measurement Unit with Electronic Bubble. The E-Bubble can directly display on the software if the pole is vertical. The point will be recorded automatically when the pole is levelled.

- 200 Hz high frequency calculation, faster initialization speed
- Calibration free, immune to the effect of earth magnetic field
- Coordinate double-check before output, result is more accurate
- Tilt angle is up to 60°, accuracy is down to 2cm•

Power System You Can Relay On

Safe-lock, Hot Swap,
Up to 20 hours working.

The power consumption of K10 Pro X maybe is the least in its class. Two batteries can provide up to 20 hours working time when it runs as a rover. K10 Pro X also can be recharged by external power source via Type-C port.

A reinforced battery compartment has been designed for K10 Pro X, each compartment has a hinged seal door with rotary switch, totally prevent the "drop off".

kFill

Save the RTK/ CORS
Signal Loss

KOLIDA kFill technology is able to provide a 5 minutes sustainable high accuracy service during temporary RTK or CORS signal coverage outages. After RTK and CORS signal recovers, receiver will switch to real-time corrections seamlessly.