KOLIDA

K5 Plus+ GNSS System

The Evolution of KOLIDA GNSS

K9T

Trimble Maxwell Technology, 220 channels
GPS+GLONASS, 64MB Memory
Radio Frequency 450-470 MHz
User choose to work it as Base or Rover

K9TX

GPS+GLONASS+BEIDOU, 4 GB Memory
Built-in Transmitter Radio, 2 km
Radio 410-430, 430-450, 450-470 selectable
Support other brands' radio protocol

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The Evolution of KOLIDA GNSS

K5 Plus

Tilt survey, Electronic bubble, NFC
Smallest and lightest, Alloy shell, superior proof
Radio Frequency 410-470 MHz , 5 km
Voice Guide, Bluetooth 4.0+2.1

K9 mini

Smallest and lightest
Alloy shell, superior proof
Radio Frequency 410-470 MHz , 5 km
Voice Guide, Bluetooth 4.0+2.1

(K9mini is the simplified version of K5 Plus)

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New K5 Plus+

Takes your productivity to a new height

- Intelligent Solution
- "Super RTK" Technology
- Reliable Software

"The new K5 plus+ helps surveyors to acomplish their missions easier, faster and more accurate by delivering exceptional quality and innovative features."

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K5 Plus+ Overview

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K5 Plus+ Overview

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New K5 Plus+

Intelligent Solution

- Linux: a more advanced platform
- Diversified ways to internet
- More convenient to control receiver
- Longer working hours

"K5Plus+: born for intelligence era!"

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Linux: a more advanced platform

The adoption of Linux system brings K5 Plus + a superior performance and functionality that surpasses the old hardware platform.

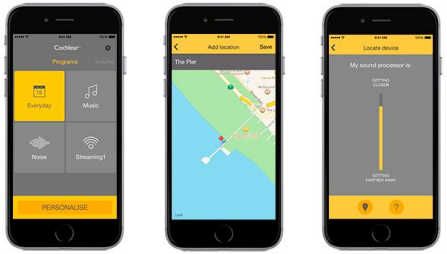
- Link with your smart device
- More Convenient Data Management
- Intelligent Voice Guide
- Faster and more stable

Link with your smart device

- Desktop PC, Laptop, Tablet PC, Smart Phone

- Windows, Android, IOS

- Survey with smart Apps or desktop PC software



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More Convenient Data Management

- 8GB SSD internal memory, external 32 GB
- RINEX raw data storage
- Cyclic storage program, automatically overwrite old data when disk is full
- USB OTG function allows downloading data in the field

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Intelligent Voice Guide

- Voice report of working status and self-inspection result
- Saving time of looking at control panel
- Users can record in their own language

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Faster and more stable

- Reduced initialization time (<10 s)
- Multi-threaded working mode increase command response speed for 20%
- Positioning output rate and data sampling rate is up to 50 Hz
- Capable to do long time and uninterrupted work
- When SIM card is inserted, K5 Plus+ will automatically search and register in mobile network. It saves time.

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Diversified ways to internet

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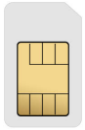
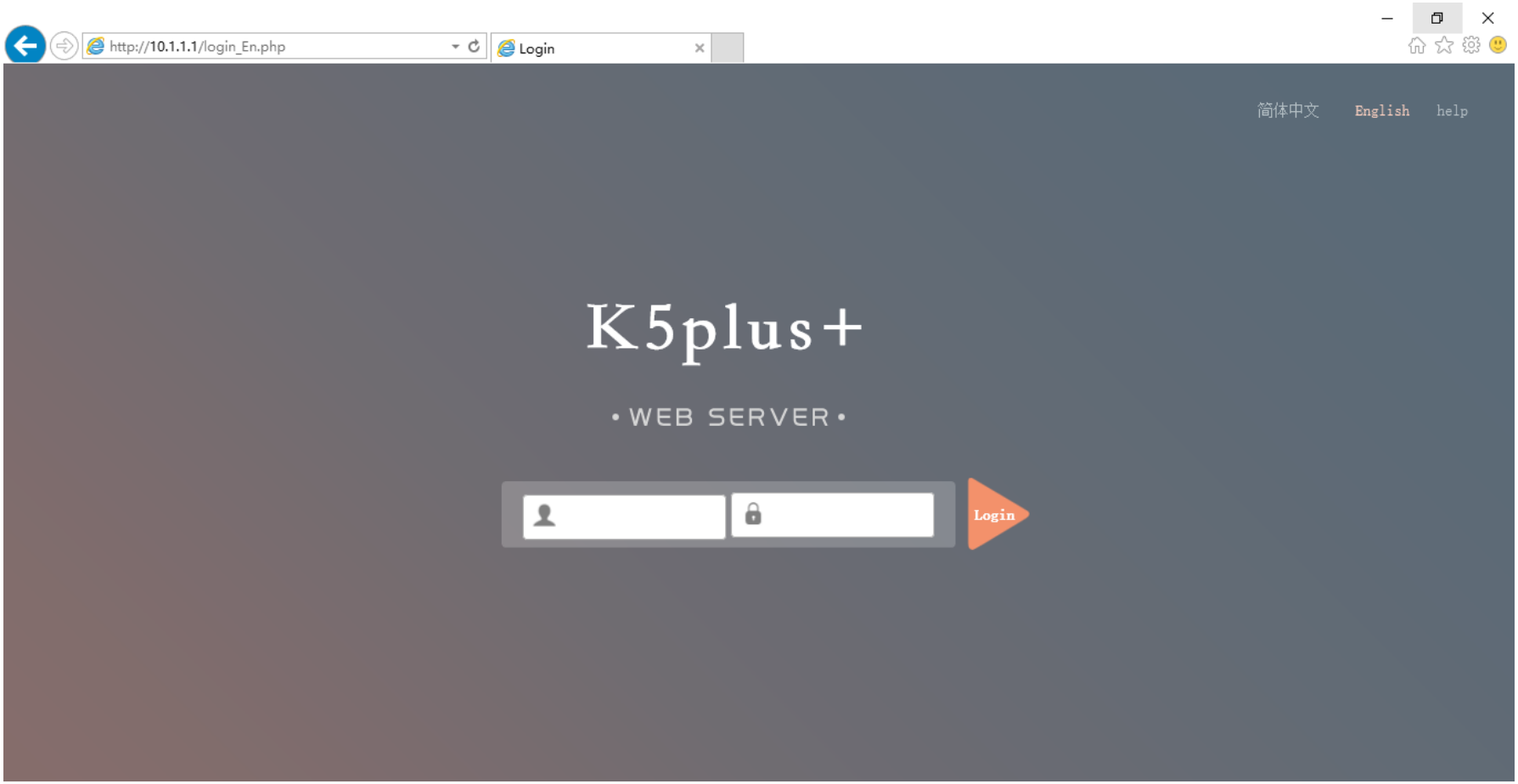
-  +  +  + 
-  +  +  + 

More convenient to control receiver

- Web UI
- Access by wifi
- Short Message

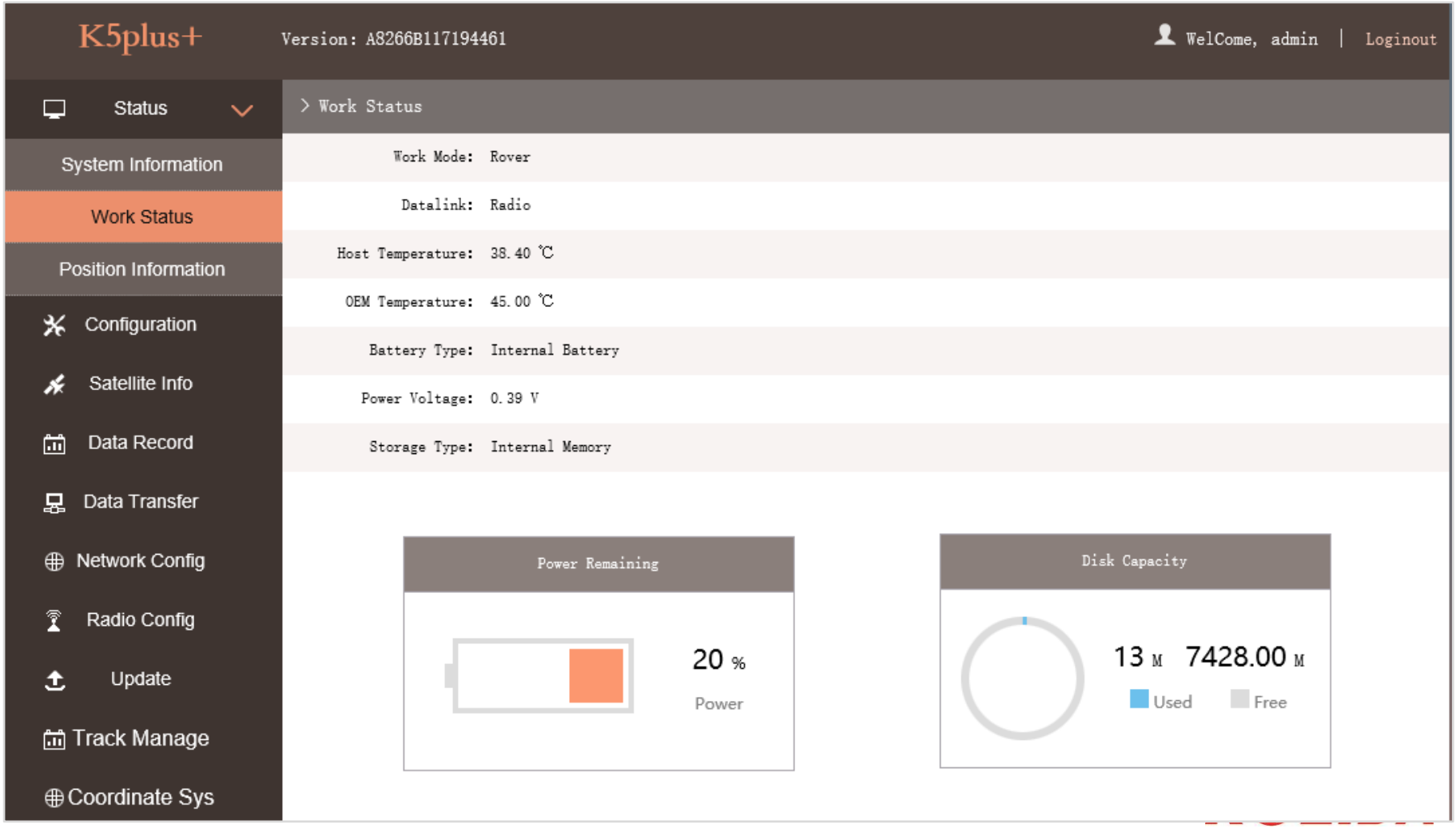
WEB UI

- It is no more necessary to use professional controller and software to visit and configure GNSS receiver.
- Intuitively operate via net browser



WEB UI

- Intuitively operate via net browser

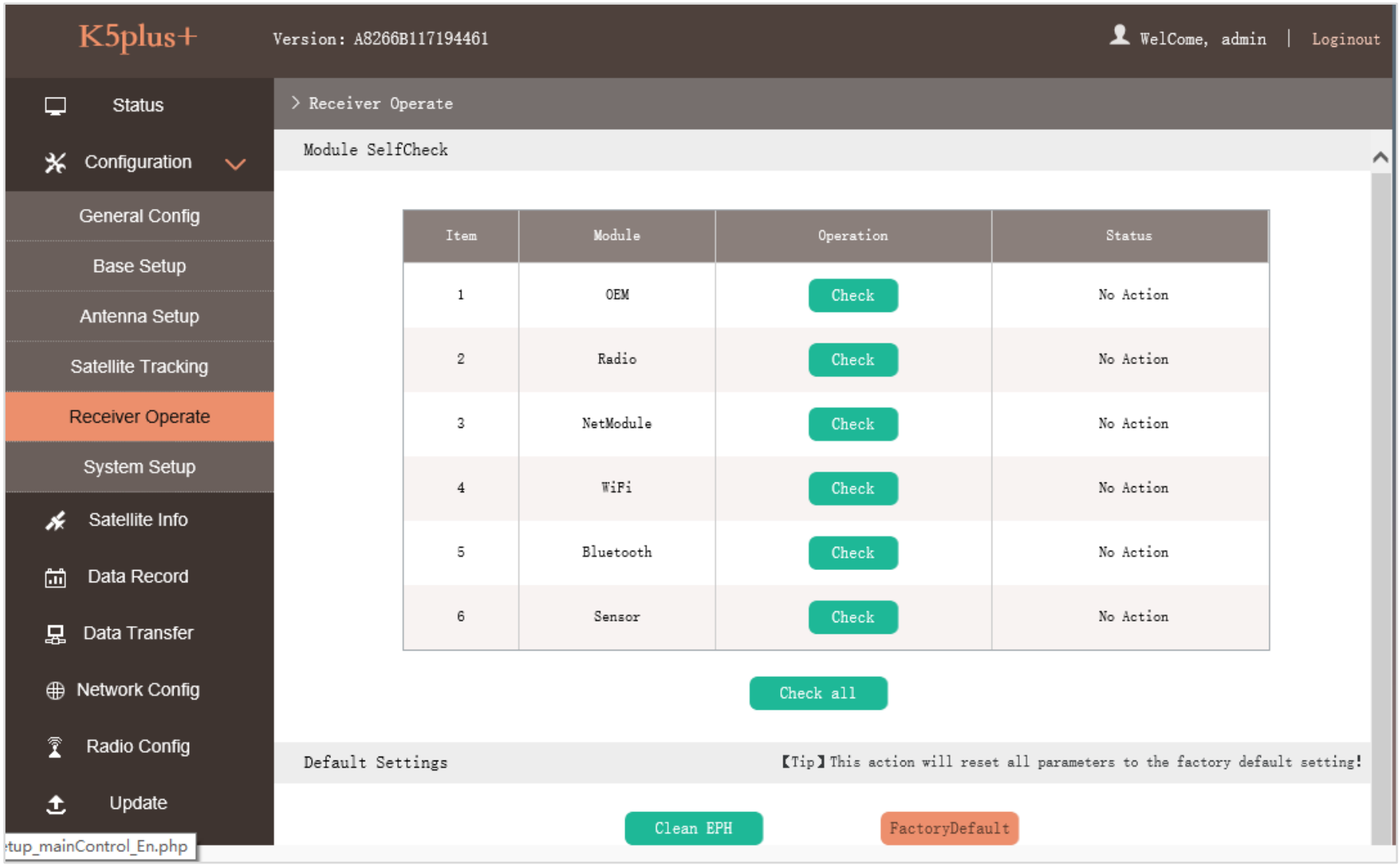


WEB UI

- Intuitively operate via net browser

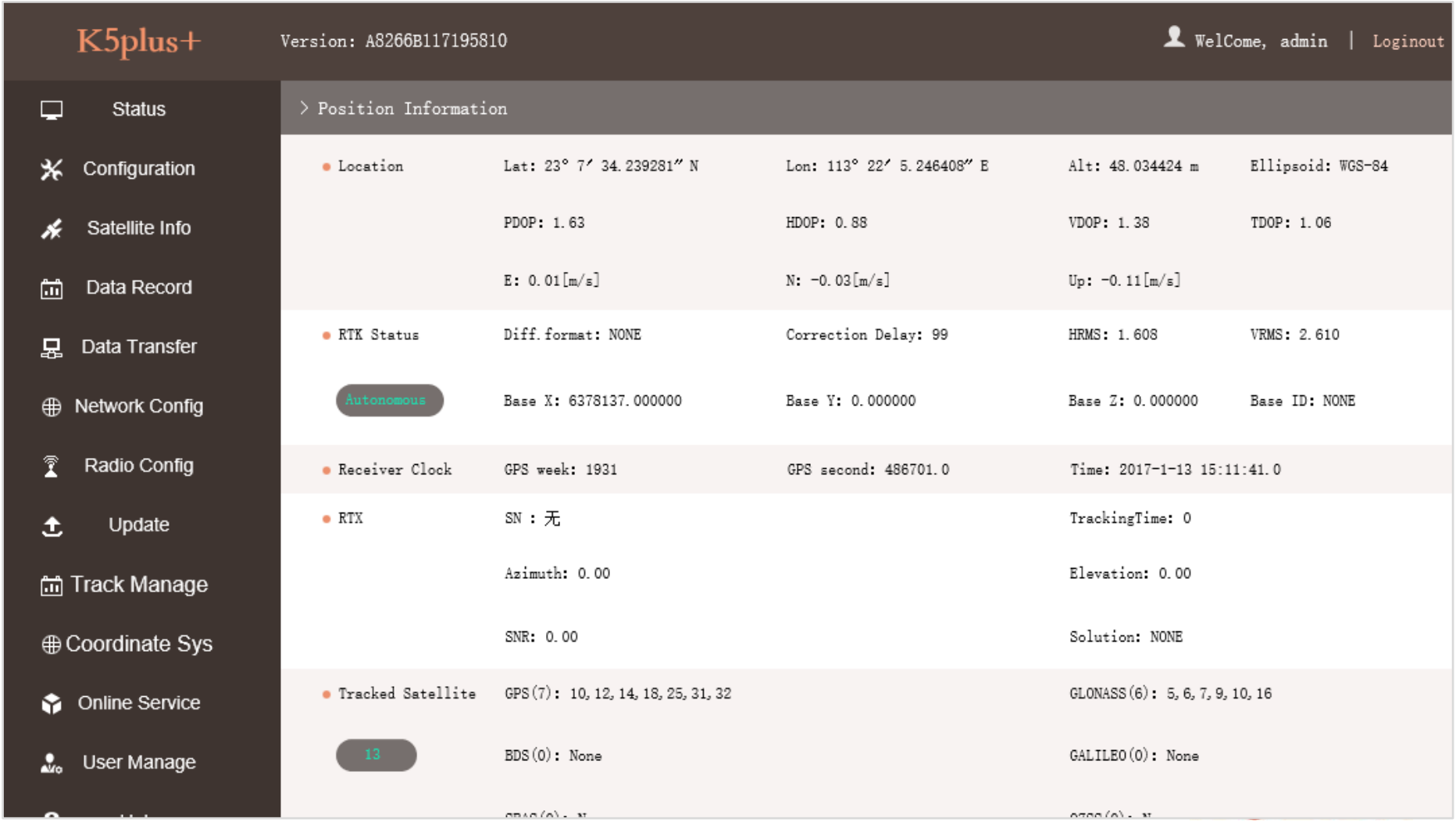
WEB UI

- Intuitively operate via net browser



WEB UI

- Intuitively operate via net browser



WEB UI

- User can choose wifi or cable to log on web UI.

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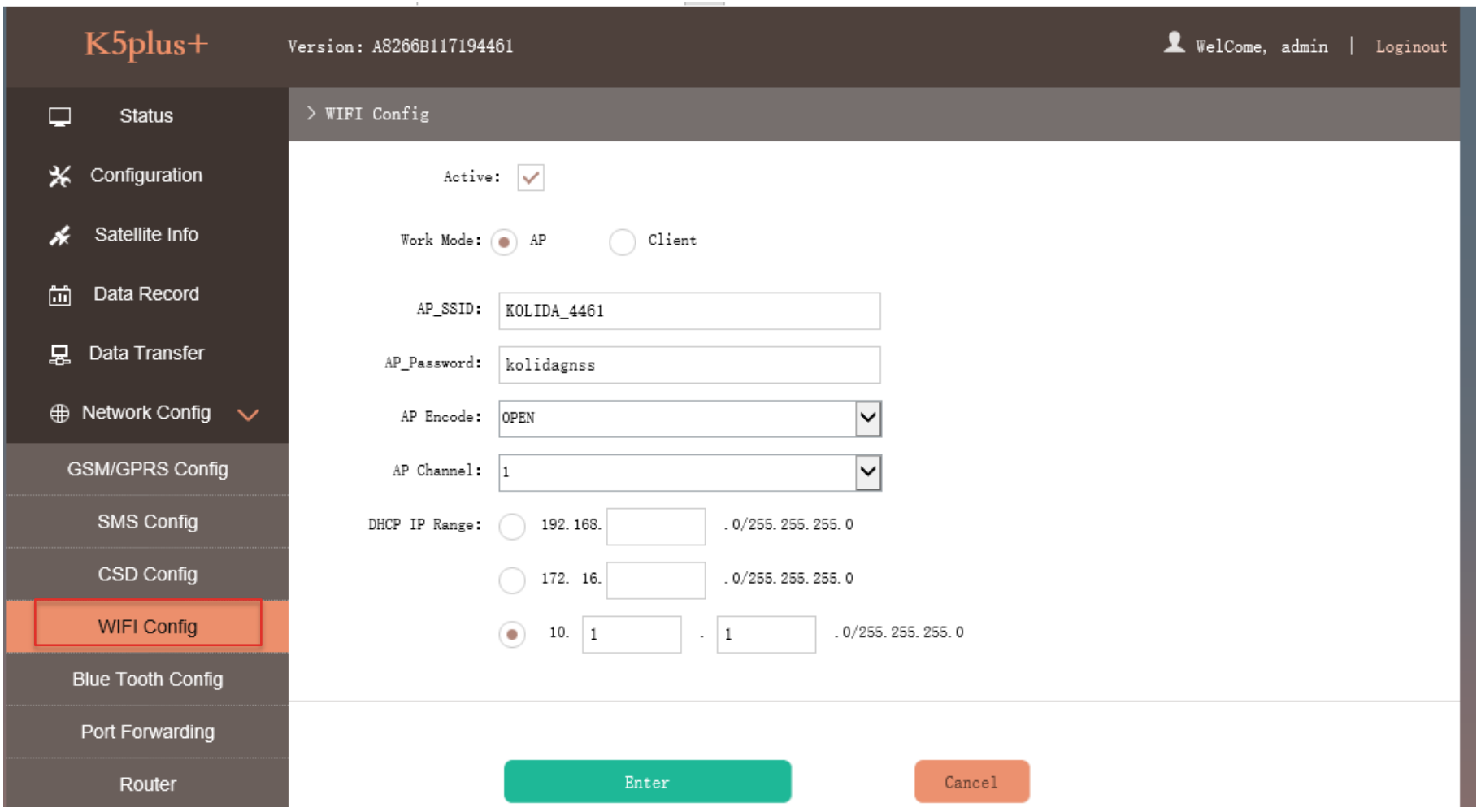
Access by wifi

Set K5 plus+ wifi into AP mode, user can connect receiver with other smart device to monitor and configure receiver, without disconnecting bluetooth with data controller. It is a new feature.



How To Connect

- Disconnect your device from any existing Wi-Fi network
- Search for K5 Plus+
  - The name of the network is "KOLIDA_xxxx" (where xxxx are the last 4 digits of the receiver serial number)
- In your browser, go to: http://10.1.1.1
- Log on using the following credentials
  - Username: admin
  - Password: admin

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SMS: Remote monitor and control

- Send SMS to check working status
  - Receiver Information
  - Receiver Position
- Send SMS to check parameter setting
  - Antenna Height
  - Radio Channel, power, protocol
- Send SMS to start base station
- Warning: “base is moved!”

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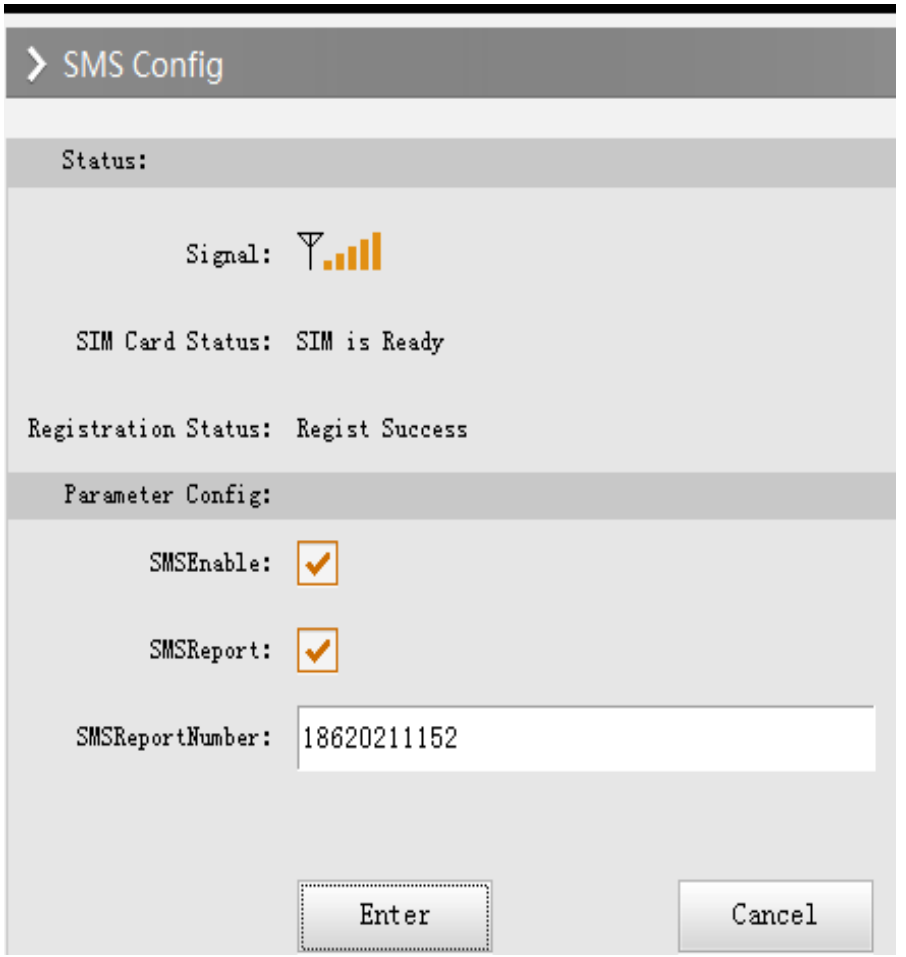
How To Connect

- Insert SIM card
- Wait to see "SIM is ready"
- Tick “SMS Enable”

  Tick “SMS Report”
- Input the cellphone number that you want to receive notice



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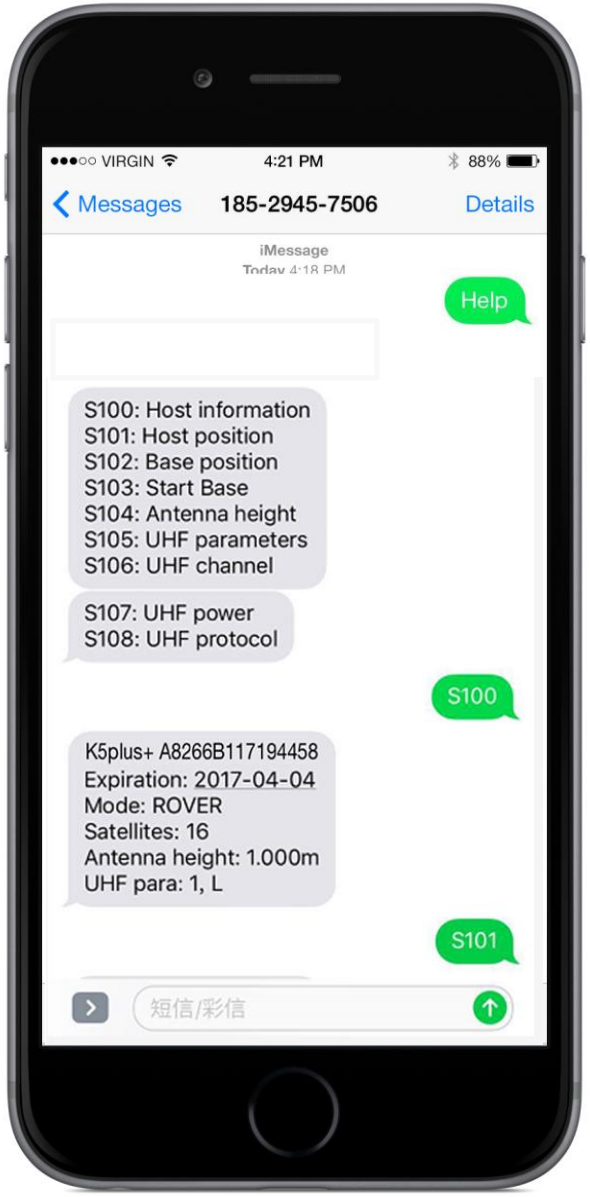
SMS: Remote monitor and control

- Send “help” to get command list
- Check working status
  - s100 (General info)
  - s101 (Receiver position)
  - s102 (base position)
- Start Base Station
  - s103



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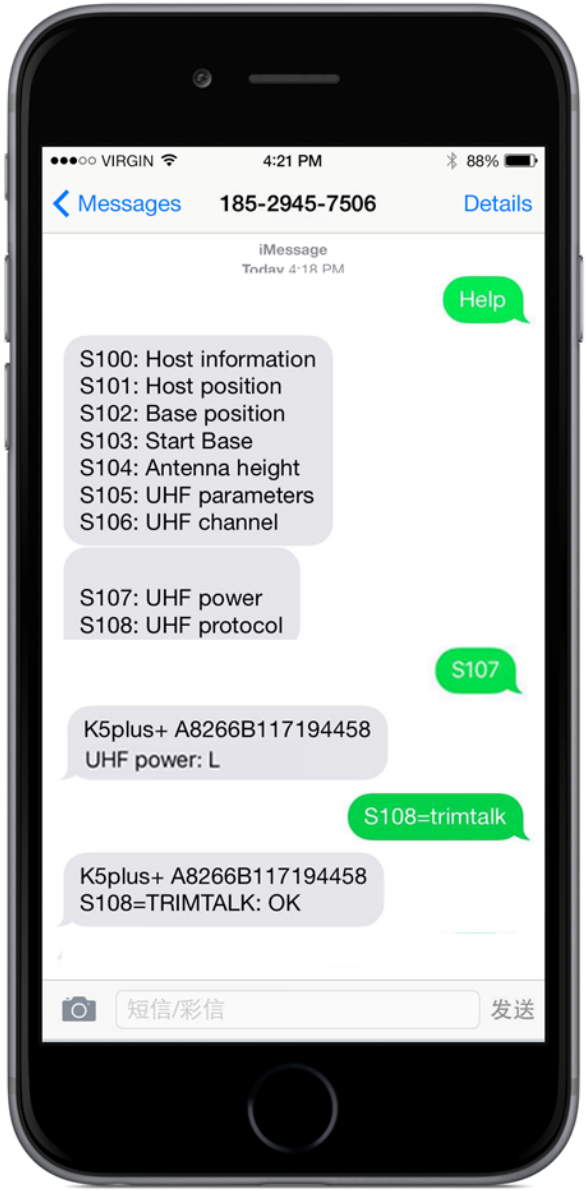
SMS: Remote monitor and control

- Check settings
  - s104 (antenna height)
  - s105 (radio parameter)
  - s106 (radio channel)
  - s107 (radio power)
  - s108 (radio protocol)

- Modify settings
  - s104=xxxxx
  - s105=xxxxx
  - s106=xxxxx
  - s107=xxxxx
  - s108=xxxxx



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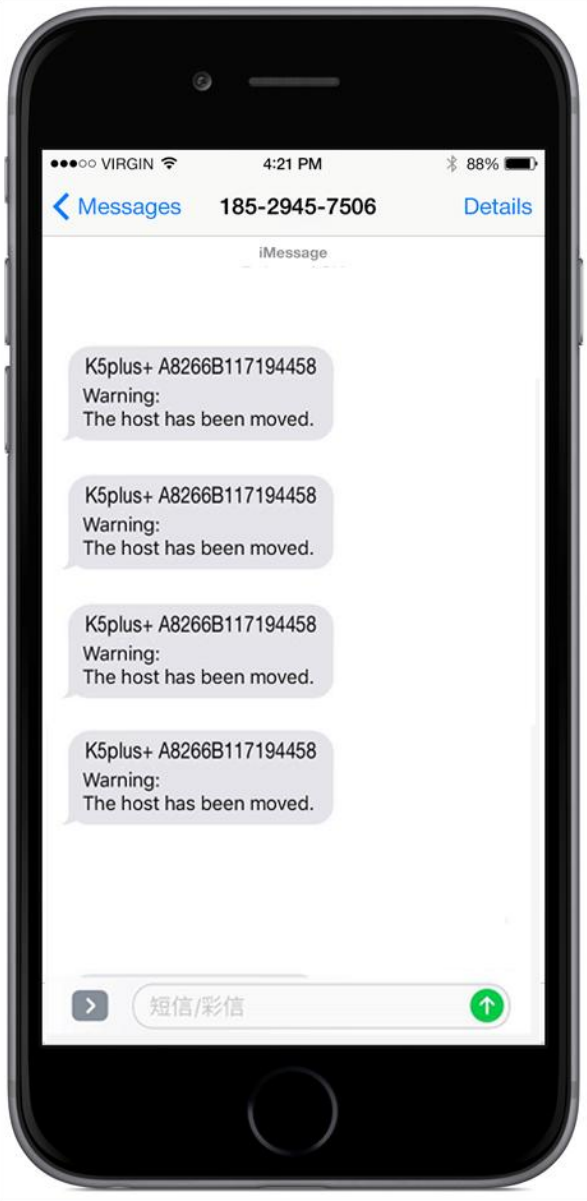
SMS: Remote monitor and control

- Warning

  “Base station has been moved!”



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Longer working hours

- Bigger battery volume
- Smart Power Management
- Extra Battery compartment

Longer working hours

- Bigger battery volume
  - Before 2700mAh, now3400 mAh
  - Panasonic
- Smart power management
  - Static, 8 hours per battery
  - Rover, 6 hours per battery
  - Base with built-in radio transmitter mode, 5 hours per battery
- Two units batteries with each K5 Plus+

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Longer working hours

- Extra Battery compartment (optional)
  - Contains four batteries
  - Supports more than 24 hours work
  - One-button check battery level
  - To be purchased separately

- Safer and more saving than using car battery or other storage batteries

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New K5 Plus+

"SuperRTK" Technology

- More powerful built-in Radio
- No need to buy repeater
- Make Network signal stronger and more stable
- Continuous work, less down time
- Work with mobile signal
- Transform K5 plus+ to reference station

"The never-seen-before radio and network functionalities of K5 plus+ help surveyors to overcome difficulty and improve efficiency!"

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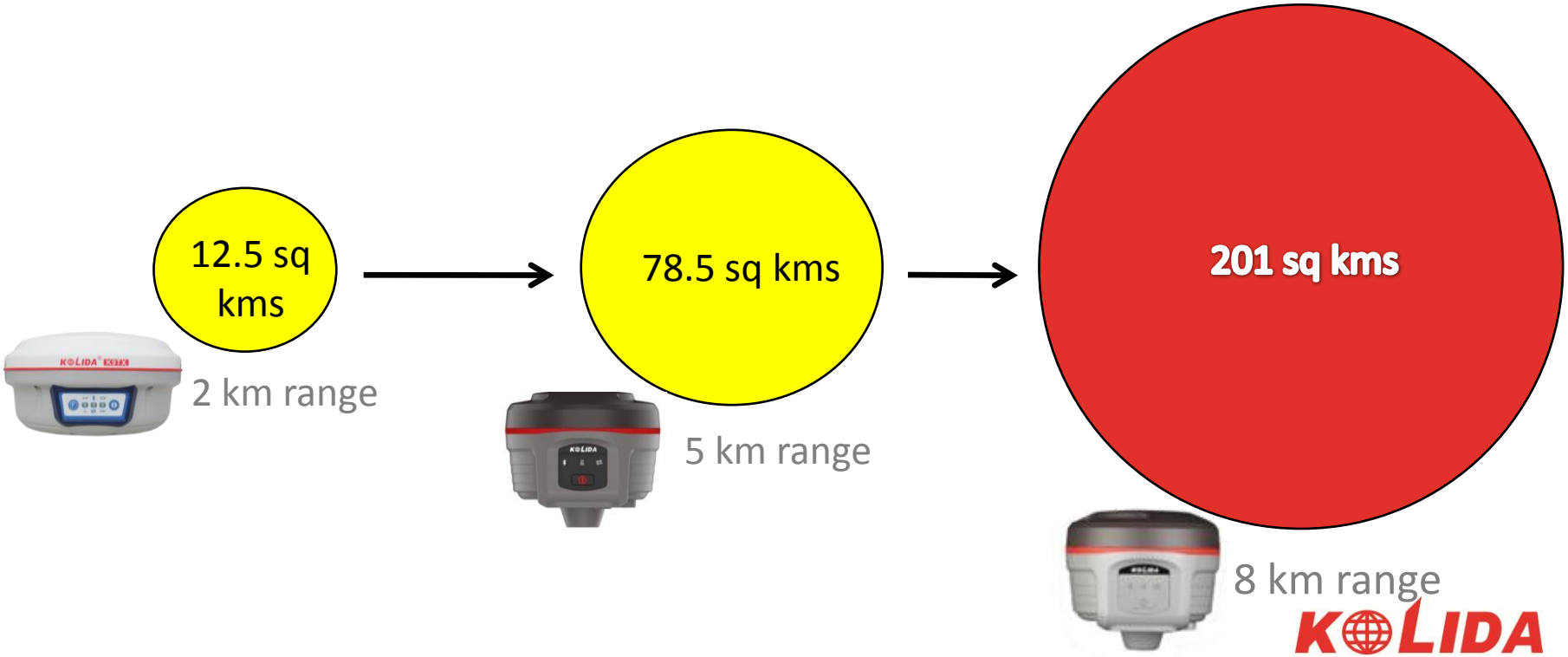
More powerful built-in Radio

- Internal wideband radio can broadcast at a powerful 3W
- Extend the radio range to 8 km
- Increases the working area by 120 sq kms



No need to buy repeater

Surveying in complex terrain with traditional GNSS receivers, rover station will easily lose the stable radio signal, user have to buy radio repeater to increase radio signal strength and coverage. This is an extra and expensive cost.

- Set K5 plus+ into Radio Repeater mode, it will transfer radio signal to other rover station.
  - Greatly improve the radio working distance, availability, stability.
  - No need to buy radio repeater, cost Saving

Make Network signal stronger and more stable

In some places of my working area, GPRS or 3G signal is weak, how do I work smoothly with CORS network?

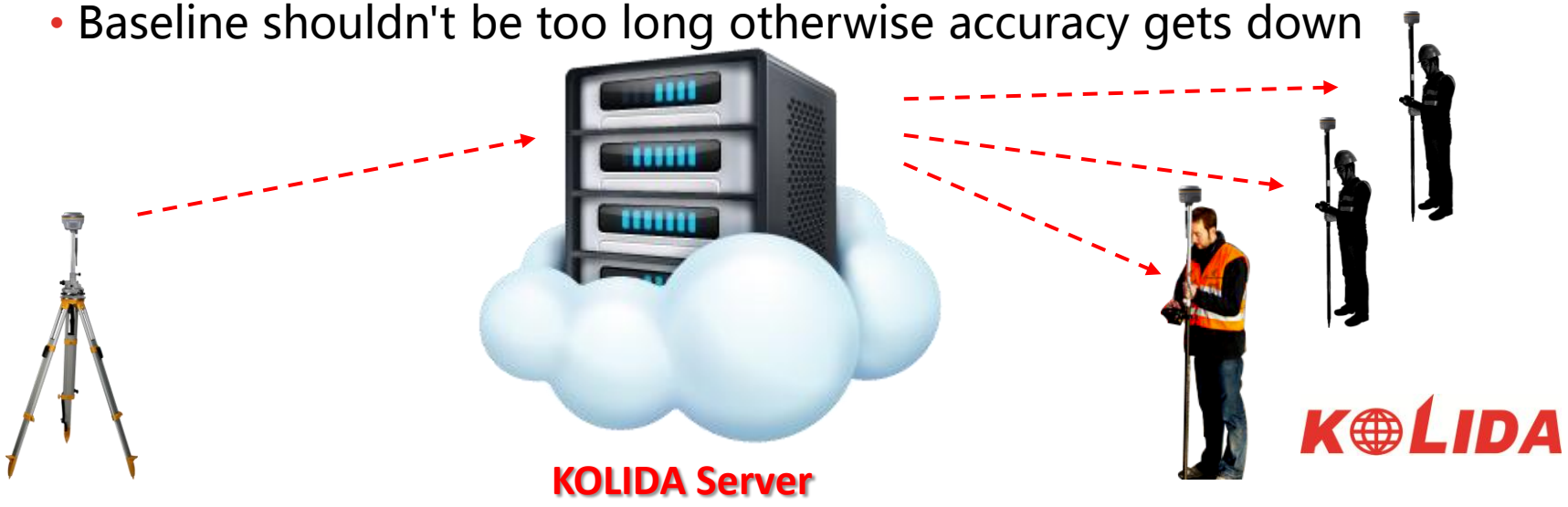
I have only one account, how do I use my 3 VRS rovers simultaneously?

- Set K5 plus+ into Radio Router mode, it will transfer network signal to other rover station.
  - Greatly improve the CORS signal availability and stability.
  - Several rover stations use one CORS account, cost saving.

Continuously work, less down time

There is a harsh environment in the surveying area, radio doesn't work and we don't have CORS, how to work?

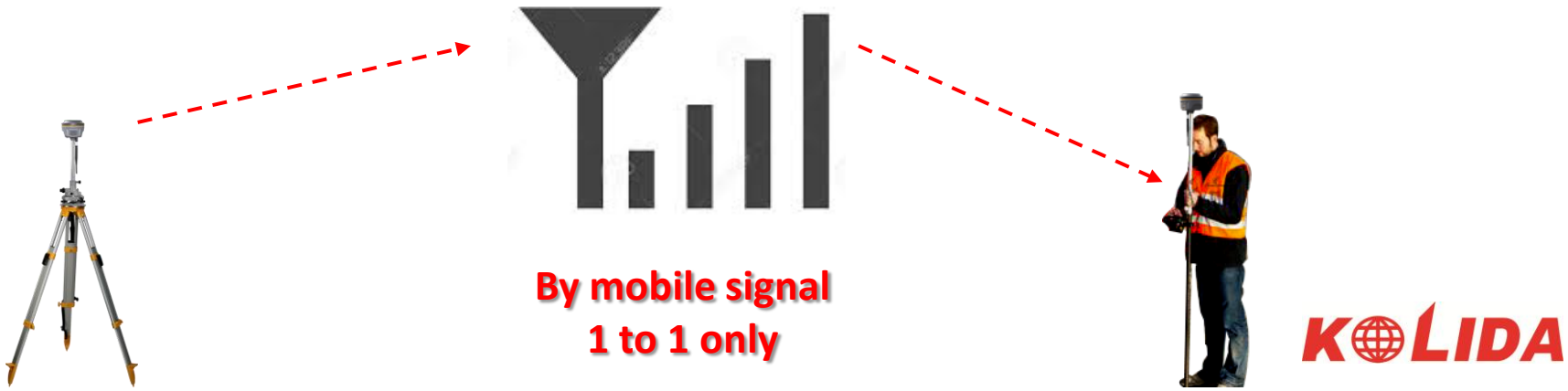
- Set K5 plus+ into Eagle mode, base station sends correction data to KOLIDA server, rover download it, then you can continue RTK surveying.
  - This mode needs an available server
  - One base can work with several rovers
  - Both base and rover need to access to internet via SIM card or wifi
  - Baseline shouldn't be too long otherwise accuracy gets down



Work with mobile signal

Radio doesn't work, we don't have CORS, I also don't have server to use Eagle Mode, what to do?

- Set K5 plus+ into CSD Mode, the base station sends correction data to rover via mobile signal, then you can continue RTK surveying.
  - Both base and rover need to have SIM card
  - The Data Fax function of SIM cards should be activated
  - Data Fax service is available in few countries only, ask your mobile service provider for the availability.



Transform K5plus+ to reference station

Radio doesn't work, we don't have CORS, I don't have server to use Eagle Mode, CSD is not allowed in my country, what to do?

- Set K5 plus+ into LARK mode, the base station works like a Network Reference Station, rovers download correction data via mobile internet, like VRS RTK.
  - Both base and rover need to access to internet via SIM card.
  - One base can work with several rovers
  - Saving money of building CORS
  - No need server

New K5 Plus+

KOLIDA software: a trustworthy friend of surveyor

- Different user, different field software
- Freely choose your field data collector
- Processing software with the best value

"Powerful receiver and reliable software make K5 plus+ a great and extraordinary precision positioning solution!"

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Different user, different field software

KOLIDA provides more than one option for K5 plus+ users. The user can decide whether to order software with advanced functions based on his work need and task progress.

	SOFTWARE	FUNCTION	USER	COST
	Engineering Star	Survey and stakeout	Surveyor	Free
	Gistar	Survey & stakeout, GIS attribute data	GIS expert	Free
FIELDGenius	Field Genius	Lineworks Calculation tools	Surveyor	Extra Cost
FIELDGenius	Field Genius (Advanced Module)	Roading program, 3D functions	Skilled user	More Extra Cost

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Freely choose your field data collector

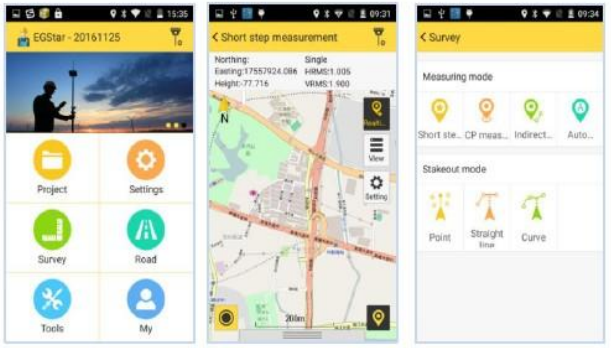
KOLIDA provides three model of data controllers for users who are used to work with Windows Mobile system.

	Screen Size	Phisical Keyboard	Camera	GPS	SIM Card (phone function)	Proof Level
X2 	4.3 inches	No	Yes, 5MP	Yes, 72 channels	Yes	IP65
X11 Lite 	3.7 inches	Yes	no	No	No	IP67 & Mil-STD 810G
X11 Pro 	3.7 inches	Yes	Yes, 5MP	Yes, 72 channels	Yes	IP67 & Mil-STD 810G

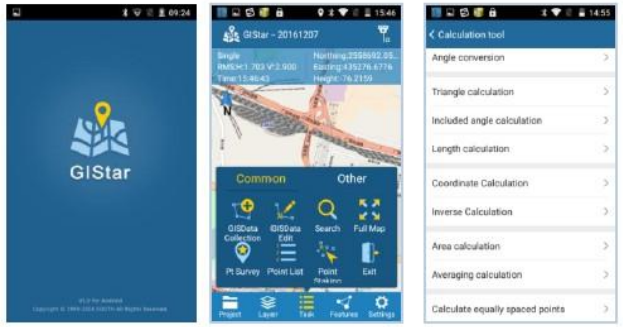
Freely choose your field data collector

Users can also choose the data collectors that carry Android system, even their own smart phone.

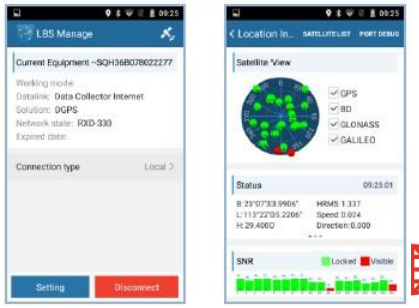
EGStar
(Android)



GIStar
(Android)



LBS
(Android)



LIDA

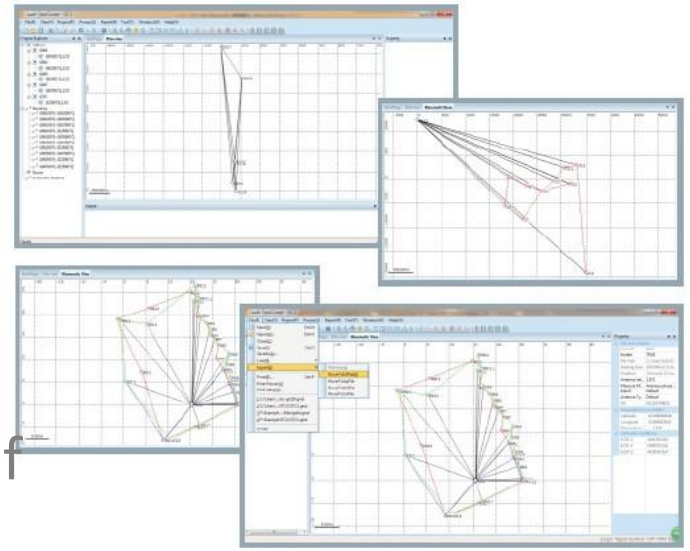
Freely choose your field data collector

Surveyors even can use tablet or laptop that carry Windows Desktop system as their field data collector. In this case they will use Field Genius Windows version.

Processing software with the best value

- There are two post-processing software: KOLIDA GNSS Pro and KOLIDA Total Control.

- KOLIDA Total Control is the latest product.



- KOLIDA Processing software are free of charge.

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Other Features

K5 plus+ is setting a new level for precision GNSS positioning system

- track Beidou and Galileo signal
- Ultra small and light
- Tilt Survey & Electronic Bubble
- Rugged IP67
- Temperature control program
- Portable carrying bag
- NFC chip
- ……

Thank You!

KOLIDA