# S 8 3
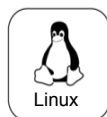
Modular gnss receiver
Dual GNSS antennas

# SANDING

## Designed for Direction Guidance

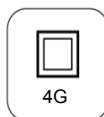Linux | Full satallites | High accurracy | OLED LED | Bluetooth | Radio | 4G | WI-FI WIFI | Water proof | Cloud

# S83

**ALWAYS
ARROW
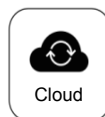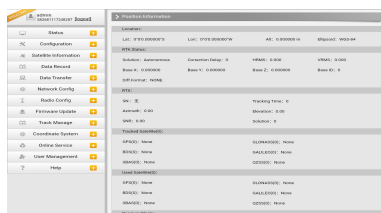AHEAD**

## Web Server

Familiar Web Server interface provides full receiver status, configuration, data access, as well as a variety of access controls and online service.
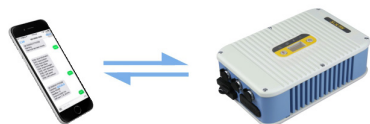
## Linux OS

Powered by the new generation of embedded Linux operating system, S83 has a greatly improved RTK performance and efficiency. One unique core processing mechanism is able to response to more than one command at one time.

## Satellites Signals

Seamlessly tracks all available constellation signals: GPS, GLONASS, BeiDou, GALILEO, etc.

## Network Data Link

Built-in network module HUAWEI ME909S. Supports more telecom standards: WCDMA, CDMA2000. FDD-LTE, TD-LTE, and also GPRS and EDGE.

## Radio Data Link

New radio module provides up to 3W output, extending the working area from 3km to maximum 8km. Radio router and repeater functionalities can be realized to serve more receivers in the field.

## Specification

| Performance | | |
|---|---|---|
| No. of Channel | | 555 |
| Configuration | | GPS, GLONASS, BEIDOU GALILEO & SBAS. |
| Single Tracked | GPS | L1C/A, L1C, L2C, **L2P**, L5 |
| | GLONASS | L1C/A,L1P,L2C/A,L2P, L3, **L5** |
| | BEIDOU | B1, B2 |
| | Galileo | GIOVE-A, GIOVE-B, E1, E5A, E5B |
| | QZSS | **L1C/A,L1C,L2C,L5** |
| | SBAS | L1C/A, L5 (only for the satellites supporting L5) |
| Position Accuracy | | |
| Code Differential | Horizontal | 25cm+1ppm RMS |
| | Vertical | 50cm+1ppm RMS |
| | SBAS | Typically <5m 3DRMS |
| Real-time Kinematic | Horizontal | 8.0mm+1.0ppm RMS, |
| | Vertical | 15.0mm+1.0ppm RMS |
| Static | Horizontal | 2.5mm+0.5ppm RMS |
| | Vertical | 5.0mm+0.5ppm RMS |
| **Heading accuracy** | **2 m baseline** | **0.04 deg** |
| | **4 m baseline** | **0.08 deg** |
| Communication | I/O | Network antenna socket, External antenna socket |
| | | 7-pin LEMO, 5-pin LEMO, **two gnss antenna interface** |
| | | RJ45 Ethernet port, **1 PPS interface** |
| | | SIM cars slot |
| Wireless Modem | | Integrated internal radio receiver & transmitter |
| | Frequency | 410-470MHz |
| | Protocol | TrimTalk450s, TrimMark3, SOUTH |
| | Output Power | 1W/2W/3W |
| GSM/GPRS Modem | | WCDMA 3.5G module, GPRS/EDGE compatible, TDD-LTE/FDD-LTE/TD-SCDMA 4G |
| Double Module Bluetooth | | Bluetooth 4.0 standard, supports connection with Android & iOS |
| | | Bluetooth 2.1 + EDR standard |
| WiFi | | 802.11b/g |
| Data Storage/Transmission | | 8GB SSD internal memory, external USB disk Cyclic storage program, automatically overwrite old data when disk is full |
| Data Format | Differential | CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2 |
| | GPS Output | NMEA 0183, PJK plane coordinates, binary code, Trimble GSOF |
| | Network Model | Fully support NTRIP protocol |
| User interaction | Operating system | Linux |
| | Button | Two buttons, PWR+Func key |
| | WEB SERVER | Online management platform for monitoring and configuring |
| Physical | Dimension | 184mmx148mmx68mm |
| | Weight | 1.24kg |
| Environmental | Operating Temp. | -45°C to 60°C |
| | Storage Temp. | -55°C to 85°C |
| | Humidity | Non-condensing |
| | Proof | IP65 standard |
| | Shock | Withstands 1.5m pole drop onto cement ground naturally. |