# RS Base

GNSS STSTEM

***Fast setup. Stable fix***




## KEY FEATURES

- Fast setup: Power on and go
- More stable fix: Fewer dropouts, less drift
- Reliable broadcast: Corrections stay connected
- Multi-link backhaul+5W UHF radio: More control on site
- Continuous operation: No daily babysitting
- Rugged protection: Built for harsh environments

Jobsite Base | No-CORS Sites | UHF Corrections | Site Control | Machine Control Base

Runlone

# RS Base

## Physical Characteristics

### Dimension
- 152mm ×152mm ×103mm

### Weight
- 1.3kg

### Display
- Size | 1.39 inches
- Resolution | 240 × 240

### Button
- Front Button | 1 x Power

### I/O Ports
- 1 x USB Type-C
- Charging
- 1 x SIM Card Slot
- 1 x Nano-SIM card slot
- 1 × 5-pin LEMO
- power supply, RS232, external radio communication port
- 1 x UHF antenna interface
- 1 x TNC

## System Specification

### Operating System
- Linux OS

### Storage
- 32GB eMMC

### Sensor
- IMU | Supported,4D IMU initialization in 3 seconds
- Update rate | 5 / 10Hz
- Accuracy | <2cm within 60°
- Tilt compensation | 0～120°

### Power
- Battery | built-in 7.2V 13200mAh
- Battery Operating Time

-Rover mode: 36 hours

-Base mode: 8 hours

## Communication

### GNSS Performance
- Signals tracking

-GPS:L1C/A/L2P(Y)/L2C/L5

-GLONASS:L1/L2/L3

-BDS:B1I/B2I/B3I/BIC/B2a/B2b

-Galileo:EI/E5a/E5b/E6

-QZSS:L1/L2/L5

-SBAS:L1

-NavIC:L5

- Channels | 1408
- Cold start | ＜60s
- Hot strart | ＜15s
- Positioning output rate | 1Hz～50Hz
- Signal reacquisition | <1s
- RTK initialization time | <5s
- Initialization reliability | >99.99%
- Time accuracy | 20ns

### Positioning accuracy
- Code differential GNSS positioning | H:0.25m+1ppm RMS, V:0.50m+1ppm RMS
- SBAS differential positioning accuracy | Typically<5m 3DRMS
- Static GNSS surveying | H:2.5mm+0.5ppm RMS, V:5mm+0.5ppm RMS
- RTK surveying (baseline<30km) | H:8mm+1ppm RMS, V:15mm+1ppm RMS
- Network RTK | H:8mm+0.5ppm RMS, V:15mm+0.5ppm RMS

### Internal UHF
- 5.0 W receiver and transmitter
- Frequency band | 410MHz~470MHz,supports frequency modification
- Protocols | Trimtalk450S,Lora,South,Satel,PCC-EOT

### Wi-Fi
- Soupport

### Bluetooth
- Soupport

### NFC
- Soupport

### Cellular network
- LTE-TDD B38/B40/B41
- LTE-FDD B1/B3/B5/B7/B8/B20
- UMTS/HSPA+ B1/B8
- GSM/GPRS/EDGE 900/1800 MHz

### Differential data format
- RTCM2x, RTCM3x

### GPS output data format
- Binary code, NMEA-0183

## Reliability

### Environment
- Operating Temperature | - 30°C to +70°C
- Storage Temperature | - 40°C to +80°C
- Operating Humidity | 0% to 100% RH, non-condensing

### Rugged
- Shock | MIL-STD-810H
- Vibration | MIL-STD-810H
- IP rating | IEC 60529-2013 IP67

## Certification

### Certification
- FCC / CE / ROSH / REACH / WEEE / UN38.3 / MSDS

**DELIVER WITH CONFIDENCE.**