RS Base

GNSS STSTEM

Fast setup. Stable fix

RUNIONE

2025-09-13 13:17:07
80%
BASE 37/47
Lat:22.958071 Lon:113.370774
PDOP:1.6 Height:1.93m
HDOP:1.7 HRMS:0.7
VDOP:1.8 VRMS:0.7

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

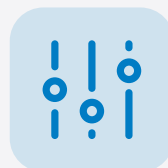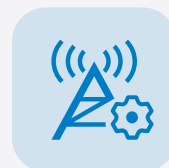· Rugged protection: Built for harsh environments

Jobsite Base

No-CORS Sites

UHF Corrections

Site Control

Machine Control Base

RunIone

RS Base

Physical Characteristics

Dimension	Weight
• 152mm ×152mm ×103mm	• 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	Storage
• Linux OS	• 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

• Battery Operating Time	
-GPS:L1C/A/L2P(Y)/L2C/L5	-GLONASS:L1/L2
-BDS:B1I/B2I/B3I/BIC/B2a/B2b	-Galileo:EI/E5a/E5b/E6
-QZSS:L1/L2/L5/L6	-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	Bluetooth
• Soupport	• 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.