AllyNav

R26

GNSS IMU RECEIVER

ENABLE GNSS RTK ANYTIME, ANYWHERE

Full constellation

Strong battery life

RTK+IMU

The R26 GNSS receiver removes barriers to portability without sacrific-ing performance. Featuring full GNSS technology, it offers best-in-class GNSS signal tracking even in a harsh environment, enabling GNSS surveying beyond usual constraints. The R26 GNSS incorporates the latest innovations such as an inertial module providing automatic pole- tilt compensation in a very compact design.

FEATURES

THE POWER OF GNSS+IMU RTK TECHNOLOGY

Built-in inertial navigation module, you can measure it when you click it. As long as the pole point is aligned, the precise coordinates can be measured even if the pole body is tilted. The measuring point efficiency is increased by 20%, and the staking efficiency is increased by 30%.

FULL CONSTELLATION MULTI-BAND

Fully support BDS, GPS, GLONASS, Galileo systems, adapt to a variety of complex and harsh environments, and ensure centimeter-level positioning accuracy

ALL-IN-ONE DESIGN

Built-in Bluetooth, radio, storage, positioning, inertial navigation, antenna and other modules to meet various needs of measurement work

LARGE CAPACITY AND LONG BATTERY LIFE

Built-in battery with a capacity of up to 10000mAh, which can achieve more than 14 hours of continuous battery life, ensuring long-term operation in harsh outdoor environments

BUILT-IN UHF RADIO

Built-in low-power transceiver integrated radio module, which can realize automatic switching between mobile station and base station

STRONG COMPATIBILITY

Adapt to transparent, TRIMTALK, South and so on ,multiple communication protocols

CAN BE EXTENDED TO DUAL ANTENNAS

Built-in integrated positioning and heading board, can be connected with an external antenna, to achieve high-precision heading applications

TWO OPERATING MODES INTERCHANGE

Base station mode and rover mode can be switched freely according to needs

SPECIFICATIONS

GNSS Performance	
Channels	432 channels based on Nebulas- II
GPS	L1, L2,L5
GLONASS	L1, L2
Galileo	E1, E5a , E5b
BeiDou	B1I,B2I,B3I, B1C, B2a
QZSS	L1, L2, L5

GNSS Accuracies	
Real time kinematics(RTK)	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS Initialization time:< 5 s Initialization reliability: > 99.9%
Post-processing kinematics (PPK)	Horizontal: 2.5 mm + 1 ppm RMS Vertical: 5 mm + 1 ppm RMS
Post -processing static	Horizontal: 2.5 mm + 0.5 ppm RMS Vertical: 5 mm + 0.5 ppm RMS
Positioning rate	Default 1 HZ, Maximum 20 HZ
Time to first fix	Cold start: < 25 s Hot start: < 10 s Signal re-acquisition: < 1 s
RTK tilt - compensated	Tilt angle 0~60°, Tilt accuracy 25mm (within 30° accuracy)

Hardware	
Size (L x W x H)	140 mm x 140 mm x 88 mm (5.5 in × 5.5 in × 3.5 in)
Weight	1.03 kg (2.27 lb)
Environment	Operating: -45°C to +75°C (-49°F to +167°F) Storage: -55°C to +85°C (-67°F to +185°F)
Humidity	100% condensation
Ingress protection	IP67 waterproof and dustproof, protected from temporary immersion- to depth of 2 m
Shock	Survive a 2-meter pole drop
Tilt sensor	Calibration - free IMU for pole - tilt compensation. Immuneto magnetic disturbances.
Front panel	4 LED indicates 2 physical buttons

Communication	
Bluetooth	v 4.0, Backward compatible with BT2.x
Ports	1 x 9 PIN aviation plug, including power supply, COM RS232, CONFIG , RS232. 1 x UHF radio antenna interface
Build-in UHF radio	Standard Internal Rx/Tx: 410 - 470 MHz/840MHz Transmit Power: 0.5 W to 2 W Protocol: Transparent, TT450S,Trimtalk, TRMMARK3
External Radio	Frequency: 410-470MHz Transmitting power: 35W Working Range: 15-20Km
Data formats	Link rate: 9600 bps to 460800 bps Range: Typical 5 km to 8 km RTCM2.x, RTCM3.x, CMR
Data storage	8 GB internal memory

Electrical	
Power consumption	5 W (depending on user settings)
Li -ion battery capacity	10200mAh
Operating time on internal battery	20h(Rover) 10h(Base)
External power input	9 V DC to 36 V DC
Power consumption	As Rover<4.0W As Base<10.5W

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