

# *GNSS Receiver* **RSAT-V**

Handheld Convenient RTK

# RSAT-V GNSS Receiver

RSAT-V is a mini portable multifunctional GNSS receiver, a new generation of measurement engine, supporting tilt measurement, built-in 4G Modem, radio, Bluetooth and WIFI. It adopts a new appearance design, magnesium alloy structure and Linux operating system. It is an extremely light-weight and portable geodesic GNSS receiver.

## CHARACTERISTIC

### Linux Intelligent System

ARM Cortex-A7 + Linux, the intelligent system platform, brings efficient computing and unlimited expansion of product functions to users.

### Multi Constellation

With its 1408 channels, RSAT-V provides an excellent on board real time navigation solution with high accuracy. All GNSS signals (GPS, GLONASS, BDS, GALILEO, QZSS, SBAS and IRNSS) are included.

### Tilt Measurement

RSAT-V has the IMU module. Fast initialization and up to 60° inclination.

### Combined Antenna

The new four in one antenna integrates GNSS, WIFI, Bluetooth and 4G, with smaller volume and better signal.

### 4G Modem

RSAT-V has an internal 4G Modem that operates with more cellular network signals, a fast internet connection is guaranteed.

### Long Endurance

Built in high-capacity lithium battery ensures continuous working time of more than 16 hours under normal operation.

### IP67 Design

Industrial design, solid magnesium alloy shell, in line with IP67 design requirements, safe and reliable.



## GNSS Receiver

### Handheld Convenient RTK

main body Magnesium alloy  
**ABS/PC** top cover

#### **1408 Channel**

GPS GLONASS BDS GALILEO  
QZSS SBAS

Quick battery  
display

#### **3.7V, 9600mAh**

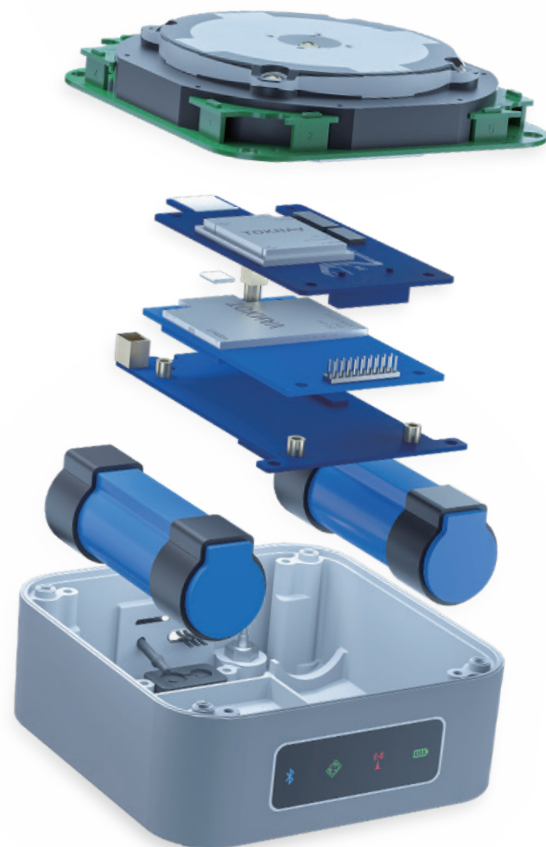
Over 16 Hours

#### **Portable and smart**

Weight 630g

#### **IMU60 supported**

Fast initialization



## Handheld Convenient



HEIGHT	DIAMETER	WEIGHT
72 mm	100.5 mm	630 g



10cm mini size, weighing only 630g.

Measure at will with IMU60

4G, Bluetooth, WiFi, Radio are all included.

# SPECIFICATION

SYSTEM	
HARDWARE SYSTEM	ARM Cortex-A7 1.8GHz
OS	Linux
GNSS	
GPS	L1C/A, L1C, L2P(Y), L2C, L5
GLONASS	L1, L2, L3
BDS	B1I, B2I, B3I, B1C, B2a, B2b(PPP)
GALILEO	E1, E5a, E5b, E6(PPP)
QZSS	L1, L2, L5
SBAS	L1(PPP)
NavIC (IRNSS)	L5 (IRNSS)
Channel	1408
Standard Output	NMEA-0183
Correction I/O Protocol	RTCM 3.X
Frequency	5Hz(max)
Reacquisition Time	<1s
Cold Start Time	<40s
ACCURACY	
SINGLE (RMS)	Horizontal: 1.5m / Vertical: 2.5m
DGPS (RMS)	Horizontal: 0.4m / Vertical: 0.8m
RTK (RMS)	Horizontal: $\pm$ (8mm+1ppm) Vertical: $\pm$ (15mm+1ppm)
Timing Precision (RMS)	20ns
Static Mode Precision (RMS)	Horizontal: $\pm$ (2.5mm+1ppm) Vertical: $\pm$ (5mm+1ppm)
Velocity Estimation (RMS)	0.03m/s
Tilt Correction (Within 60°)	<2cm
SYSTEM PLATFORM	
Bluetooth	BR+EDR+BLE
WIFI	802.11 b/g/n
Network	LTE FDD: B1/2/3/5/8 LTE TDD: B38/39/40/41 GSM: 900/1800MHz
Storage	32GB Storage

Data Radio	Receive Only Frequency: 410~470MHz Protocol: TRIMTALK, TRIMMK3, SOUTH, TRANSEOT Air baud rate: 9600 / 19200bps
INDICATOR	
Bluetooth Indicator	Show Bluetooth status
Satellite Indicator	Show position status
Data link Indicator	Show differential signal status
Power Indicator	Show power status
BATTERY	
Battery	3.7V, 9600mAh
Work time	More than 16 hours (Typical, Rover, GSM) The static working mode supports continuous data collection for 24 hours
Charge	MTK PE+1.1/2.0 9V/2A USB PD 12V/1.25A 5V/3A (Support fast charging adapter and adaptively and dynamically adjust charging current)
ENVIRONMENT	
Work Temperature	-20°C~+60°C
Storage Temperature	-40°C~+85°C
Shock Resistance	Can withstand a 1.5m drop at normal temperatures
Protection Rating	IP67
PHYSICAL	
Materials	Magnesium alloy main body, ABS/PC top cover
Dimensions	100.5mm*100.5mm*72mm
Weight	630g
ACCESSORIES	
RSAT-V Device	1 SET
USB power adapter	1 PCS
USB A To Type-C	1 PCS
Radio Antenna	1 PCS
CERTIFICATION	
Regulatory Compliance	CE, NGS  

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Manufacturers may update parameters at any time, please refer to the latest product information.



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