

CUBE RTK

Introduction

The cubic RTK high-precision satellite locator is a high-precision satellite positioning device using the latest technical solutions. It is small in size, light in weight, high in precision and full in function. It can be used as a reference station or a measurement station. It is a high-precision positioning device. The preferred device for measurement.

Cube RTK has built-in high-precision satellite positioning module with full-frequency point or four-system eight-frequency point, high-precision measurement satellite receiving antenna, IMU tilt measurement module, 4G CAT1 full Netcom communication module, WIFI communication module, dual-mode Bluetooth 5.2 communication module, LORA data transmission module, PD fast charging module, built-in large-capacity battery for up to 16 hours of battery life, support CORS differential and LORA portable base station differential, can also send RTCM data through 4G, WIFI, LORA.

Function

1. Two working modes, users can choose one of two modes, base station mode and measuring station mode. In the measuring station mode, you can choose to open or close the inertial navigation tilt measurement function.
2. In base station mode, users can set how to obtain their own coordinates (automatic convergence/differential positioning), You can also set which way to upload RTCM data (4G/WIFI/LORA, manual NTRIP/manual MQTT/Glacier MQTT).
3. Measuring station mode, the user can set how to obtain differential data (4G/WIFI/BT/LORA, Glacier NTRIP/Manual NTRIP/Glacier MQTT/Manual MQTT), you can also set whether to enable the tilt measurement function.
4. GNSS satellite system, users can customize the enabled constellation, frequency point, positioning frequency, and minimum elevation angle.
5. USB interface working mode, charging, virtual serial port, U disk.
6. Wireless communication, 4G, WIFI, LORA, Bluetooth. Users can query the status of the data card, recharge, WIFI hotspot settings, and LORA communication settings through the applet or APP.
7. The positioning data sent by RTK board can be stored in TF card, Sending data through Bluetooth and sending out three operations through the USB virtual serial port. Users can transparently transmit configuration commands to RTK modules through Bluetooth SPP and virtual serial ports.



Product Specifications

(Dual Frequency)

GNSS performance

Tracking frequency	GPS/QZSS: L1/L5 ; BeiDou : B1I/B2a ; GALILEO: E1/E5a ; GLONASS: G1 (选配)
Data update frequency	1Hz/5Hz
Sensitivity	Track : -165dBm ; Recapture: -160dBm ; Capture sensitivity: -148dBm
Speed accuracy	0.1m/s
First positioning time	Cold start: 30s ; Hot Start : 2s
RTK accuracy	Horizontal accuracy: 1cm + 1ppm ; Elevation accuracy: 2cm + 1ppm

Physical Specifications

Volume	104*104*65mm
Weight	450g
Bottom thread	3/8inch
Battery capacity	6000mAh
External interface	Type-C
Protection class	IP67

Performance Specifications

Battery life	20h (Base station mode, WIFI upload)
Supported Differential Methods	NTRIP、Bluetooth、MQTT
Storage card	Built-in TF card, 16-128GB
SIM card	SMD card / plug-in card
Bluetooth	Bluetooth5.2
WIFI	IEEE802.11b/g/n
LoRa	Support 400-500MHz、800-900MHz
4G full Netcom	LTE-FDD: B1/B3/B5/B8 ; LTE-TDD: B34/B38/B39/B40/B41

Operating environment

Working temperature	-20°C ~ 70°C
Storage temperature	-20°C ~ 70°C