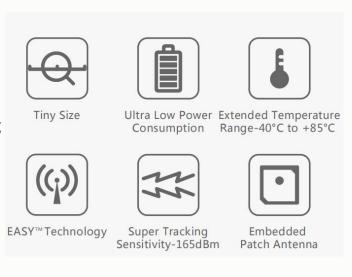


N31BS

GNSS Module

N31BS is an ultra-compact POT(Patch on Top) GNSS module. This is a standalone GNSS module in a SMT type base on MTK high sensitivity navigation engine. N31BS supports intelligent detection and shortcircuit protection of antenna insertion and unplugging, as well as automatic switching between built-in patch antenna and external active antenna and continuous positioning during the switching process. N31BS supports EASYTM, provides up to 3 days GNSS orbit prediction ability without any host CPU porting or internet connection requirement. It has tiny package and extremely low power consumption, makes it easier to be applied to power sensitive devices.







Main Features

- N31B-H: GPS+QZSS+Glonass
- N31B: GPS+QZSS+BD/Glonass
- Support EPO[™] orbit prediction
- Support EASYTM self-generated orbit prediction
- Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS)
- Low noise amplifier has been integrated
- Automatic antenna switching function
- Support short circuit protection and antenna detection
- Patch Dimensions: 15*15*4.0 mm
- Module Dimensions: 16.0*16.0*6.45 mm
- Operation temperature: -40°C~+85 °C

Power Management

- Power supply: +3.3V ~4.3VBackup power: +2.0V ~4.3V
- Power consumption Acquisition: 25mA Tracking: 22mA

Standby: 600uA Backup: 7µA

Antenna type: Embedded

Interfaces

- Serial interface
 - UART
- Digital I/O PPS
 - Force_on
 - Protocols NMEA PMTK

Performance data

- Receiver type
 33 tracking / 99 acquisition- channel
 GNSS receiver
- Maximum update rate:10Hz(w/oAiding)
 5Hz(with Aiding)
- Sensitivity

Tracking: -165 dBm

Reacquisition: -160 dBm Cold starts: -148 dBm

TTFF without EASY™

Cold starts: 32s (typical)

Warm starts: 30s Hot starts: <1s

• TTFF with EASY™

Cold starts: 15s (typical)

Warm starts: 5s Hot starts: <1s

Accuracy

Automatic Position: 2.5m CEP

Speed: 0.1m/s

