



# N32

## GNSS module

N32 is an ultra-compact POT(Patch on Top) GNSS module. This is a standalone GNSS module in a SMT type base on HD high sensitivity navigation engine. N32 supports intelligent detection and short-circuit 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. The N32 has high performance and small package, which makes it easy to be used in M2M scenarios, such as measurement, timing, navigation, tracking, etc.



Tiny Size



Ultra Low Power Consumption



Extended Temperature Range-40°C to +85°C



Super Tracking Sensitivity-160dBm



Embedded Patch Antenna

## Main Features

- Support GPS/IRNSS/Galileo/Glonass
- Support SBAS ranging (WAAS, EGNOS, GAGAN, MSAS, SDCM)
- Low noise amplifier has been integrated
- Automatic antenna switching function
- Support short circuit protection and antenna detection
- Patch Dimensions :  
18.0\*18.0\*2.0 mm+15.0\*15.0\*2.0mm
- Module Dimensions : 16.0\*16.0\*2.25 mm
- Weight : about 8g
- Operation temperature : -40°C~+85 °C

## Power Management

- Power supply : +3.0V ~3.6V
- Backup power : +1.7V ~3.6V
- Power consumption  
Acquisition : 36mA  
Tracking : 34mA  
Sleep : 980μA  
Backup : 9.0μA
- Antenna type : Embedded

## Interfaces

- Antenna interface:  
GNSS\_ANT
- Serial interface  
UART
- Digital I/O  
PPS/Force\_on/ANT\_DET/HRST
- Protocols  
NMEA  
PHD

## Performance Data

- Receiver type  
40 tracking / 96 acquisition- channel GNSS receiver
- Maximum update rate: 20Hz
- Sensitivity  
Tracking : -160 dBm  
Reacquisition : -157 dBm  
Cold starts : -146 dBm
- TTFF@-130dBm  
Cold starts : 32s (typical)  
Warm starts : 30s  
Hot starts : <1s
- Accuracy  
Automatic Position : 2.5m CEP  
Speed : 0.1m/s



**LYNO**