GPS / GNSS MODULES

1. Outstanding performance from first fix
   The GPS/GNSS modules achieve improved time to first fix (TTFF) and highly accurate real-time positioning of approximately 1.5m, enhanced signal-to-noise ratio (SNR), and a position fix of 1sec (hot start).

2. The world’s smallest form factor
   The miniature GPS/GNSS modules integrate an LNA, SAW filter, TCXO, RTC crystal, and a power management unit, in addition to the GNSS SOC.

3. Ultra-sensitivity is key
   OriginGPS proprietary Noise-Free Zone™ technology enhances sensitivity and noise immunity, both essential under challenging signal conditions such as those in urban canyons.

4. Integrated and simple to integrate
   Designed for a simple integration process, the modules offer a complete system-in-package (SIP) with an industry-leading small surface-mount technology (SMT) footprint.

5. Low power consumption saves resources
   Requiring a very short acquisition time for TTFF, OriginGPS modules consume substantially less battery power. In addition, all modules include a range of low power modes.

6. Multi-constellation
   OriginGPS modules simultaneously support multi-constellations, enabling continuous tracking of all satellites in view.

Why choose an OriginGPS GPS/GNSS module?

- **Small form factor**
  Utilizing the smallest PCB space possible enables end product miniaturization and plenty of space to design.

- **Minimizes RF design challenges**
  Modules RF front-end, LNA, SAW filter, TCXO and RTC are all integrated, while Hornet modules also include an integrated antenna.

- **Superior RF performance**
  Noise Free Zone (NFZ) technology eliminates ground currents, lowering noise floor, which results in superior C/No - the leading performance indicator in GPS/GNSS receivers.

- **Fast TTM**
  A true plug-and-play solution with commands and data communicated over UART/I2C/SPI in standard NMEA format.

- **Design review included**
  Our technical team will review your schematic and board layout files. We are RF experts, so you don’t have to be.

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### MODULE FEATURES

**HORNET SERIES**

Worlds smallest GNSS receiver with integrated antenna reduces design resources and improves time-to-market while maintaining a tiny footprint and unmatched sensitivity.

- **Dimensions (LxWxH) mm**
  - ORG1410: 10x10x6.1
  - ORG1411: 10x10x6.9
  - ORG1510-M01: 17x17x6.4

- **Weight (g)**
  - ORG1410: 3.4
  - ORG1510-M01: 8

- **DC supply (V)**
  - ORG1410: 1.8
  - ORG1510-M01: 1.8

- **Interface**
  - UART/SPV/DC
  - UART/SPV/DC

- **Accuracy (m)**
  - <2.5
  - <1.5

- **Voltage level (V)**
  - 1.8
  - 1.8

- **Max update rate (Hz)**
  - 1-10
  - 1-10

- **Internal memory**
  - ROM
  - Flash

- **Constellation**
  - GPS
  - GPS

- **GNSS SOC**
  - SiRFstar IV B01
  - SiRFstar IV B01

*All OriginGPS GNSS modules support QZSS

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### SPIDER SERIES

Worlds smallest GNSS receiver provides designer exceptional flexibility, substantial reductions in product size, and no-compromise performance.

- **Dimensions (LxWxH) mm**
  - ORG4672: 7x7x1.4
  - ORG4672-M01: 7x7x1.4

- **Weight (g)**
  - ORG4672: 0.2
  - ORG4672-M01: 0.2

- **DC supply (V)**
  - ORG4672: 1.8
  - ORG4672-M01: 1.8

- **Interface**
  - UART/SPV/DC
  - UART/SPV/DC

- **Accuracy**
  - <2.5
  - <2.5

- **Voltage level (V)**
  - 1.8
  - 1.8

- **Max update rate (Hz)**
  - 1-10
  - 1-10

- **Internal memory**
  - ROM
  - Flash

- **Constellation**
  - GPS
  - GPS

- **GNSS SOC**
  - SiRFstar IV B01
  - SiRFstar IV B01

*All OriginGPS GNSS modules support QZSS