OriginGPS
mini+mighty

ORG1510-AG05 | ORG1511-AG05 | ORG4572-AG05

Cost-effective series of compact, feature-rich GNSS modules

For applications requiring minimal power consumption in all conditions

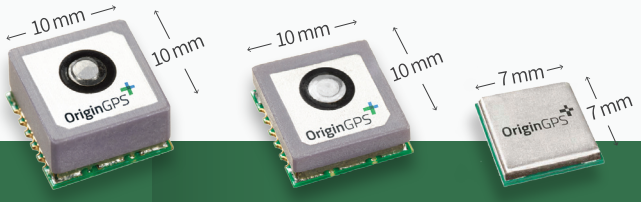
The ORG1510-AG05, ORG1511-AG05 and ORG4572-AG05 GNSS modules belong to the highly cost-effective AG series of GNSS solutions, designed with MediaTek's cutting-edge L1 chip. The L1 chip is designed using cutting-edge 22n technology. This technology boosts the modules' performance, power efficiency, and compactness, resulting in solutions that offer better signal reception, lower power usage, and improved overall functionality.

The modules are fully integrated and include dual LNA, a SAW filter, a TCXO, and an RTC. With their impressive update rates, the new AG modules series enables near real-time information, including precise position and velocity data. Additionally, the modules offer low power modes, such as ALP, which significantly prolong battery life. The AG series is the ideal choice for a wide range of navigation and tracking applications. Whether it's asset tracking, fleet management, or location-based services, these modules are perfectly suited to meet the demands of today's location-intensive IoT applications.

SPECIFICATIONS

	Dimensions (LxWxH) mm	Weight (gr)	DC supply (V)	Interfaces	Accuracy (m)	I/O Voltage (V)	Update rate (Hz)	Internal memory	GNSS SOC
ORG1510-AG05	10x10x5.9	2.4	1.8	UART-I2C	<1.6	1.8	1-10	Flash	AG3352B
ORG1511-AG05	10x10x3.9	1.43	1.8	UART-I2C	<1.9	1.8	1-10	Flash	AG3352B
ORG4572-AG05	7.0x7.0x1.6	0.2	1.8	UART-I2C / UART-SPI	<1.7	1.8	1-10	Flash	AG3352B

FEATURES



- Supported constellations:
  - GPS, GLONASS, Galileo, BeiDou, QSZZ
- Ultra-high sensitivity down to -167dBm
- Intelligent design improving time to market
- Rapid update rate and superior memory
- Jamming Rejection - 12 multi-tone Active Interference Cancellation (AIC)
- Continuous connectivity with minimal power consumption
- Miniature low-power architecture with low power modes
- Superb noise immunity

Pin-compatible with • ORG1510 • ORG1511 • ORG4472 • ORG4572

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).

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.

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.

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.

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.

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.
+ Reduced 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 /N_0 - 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	Our technical team will review your schematic and board layout files. We are RF experts, so you don't have to be.