

ORG4600-B01

Dual Frequency (L1 + L5)



GNSS module in compact 10x10 mm footprint

Ideal for IoT and OBD applications requiring sub-1m positional accuracy in all conditions.

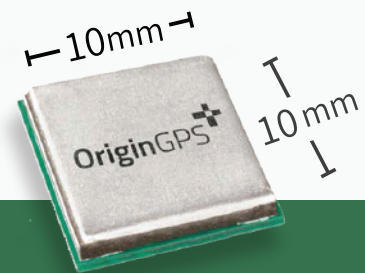
The ORG4600-B01 is a dual frequency GNSS module developed with Broadcom's L1+L5 chip for ultra-accurate GNSS positioning. The solution enables customers to build solutions with sub-1m accuracy in real-world operating conditions without implementing external components and is the industry's smallest dual-frequency module. One RF port allows for the use of a low-cost, dual-band antenna, while an alternate build option allows for separate L1/L5 RF outputs when dual antennas are desired.

The solution is fully-integrated (dual LNA, SAW filter, TCXO), and ideally suited for solutions requiring a dual frequency combination and ultra-accurate positioning, such as autonomous vehicles and equipment, and telematics, IoT and OBD applications.

SPECIFICATIONS

Dimensions (LxWxH) mm	Weight (gr)	DC supply (V)	Interface	Accuracy (m)	I/O Voltage (V)	Update rate (Hz)	Internal memory	GNSS SOC
10x10x1.95	0.4	2-5.5	UART/I2C	< 1	1.8	1	Flash	BCM47758

FEATURES



- + RAW output for RTKLIB corrections
- + L1 static drift elimination
- + Integrated geo-fencing
- + Superior multipath rejection
- + Injected Ephemeris support
- + Positional accuracy at low velocity
- + Superior tracking in Urban Canyon Environment
- + Supported Constellations
 - + L1 (1559 – 1606 MHz); GPS, GLONASS, Galileo, BeiDou
 - + L5 (1166 – 1187 MHz); GPS, Galileo, QZSS, IRNSS

GPS / GNSS MODULES



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.

+ 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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