

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

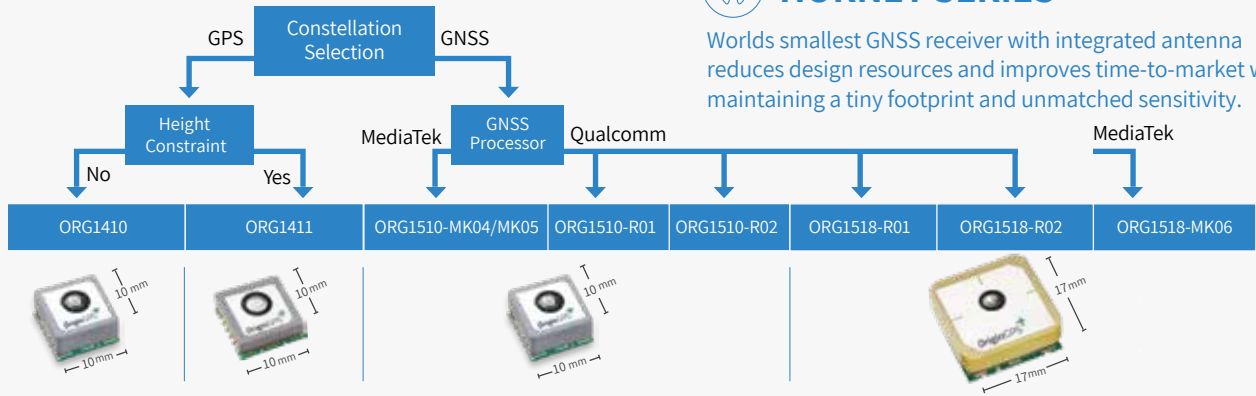
Our technical team will review your schematic and board layout files. We are RF experts, so you don't have to be.

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MODULE FEATURES

HORNET SERIES

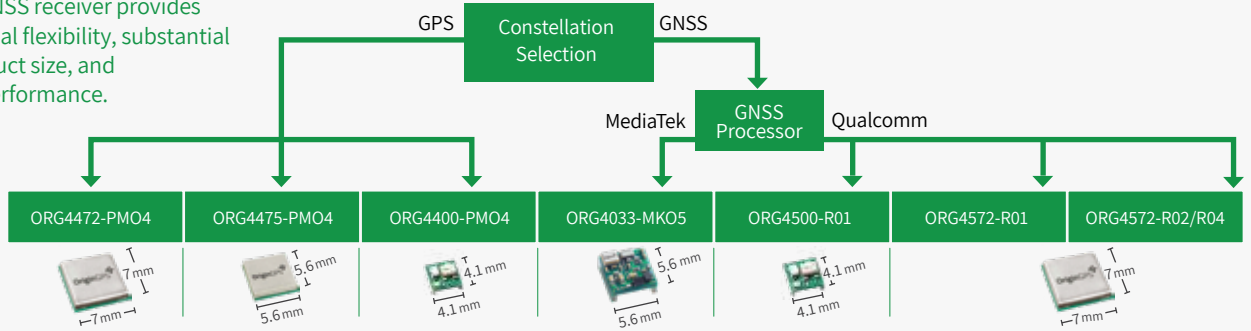
Worlds smallest GNSS receiver with integrated antenna reduces design resources and improves time-to-market while maintaining a tiny footprint and unmatched sensitivity.



	ORG1410		ORG1411		ORG1510		ORG1518		ORG1518	
	-PMO1	-PMO4	-PMO1	-PMO4	-MK04/MK05	-R01	-R02	-R01	-R02	-MK06
Dimensions (LxWxH) mm	10x10x5.8	10x10x5.8	10x10x3.8	10x10x3.8	10x10x6.1	10x10x5.9	10x10x5.9	17x17x6.4	17x17x6.4	18x18x6.4
Weight (gr)	2.34	2.34	1.35	1.35	2.4	2.37	2.37	8	8	8
DC supply (v)	1.8	2-5.5	1.8	2-5.5	3.3	1.8	1.8	1.8	3.3	3.3
Interface	UART/SPI/I2C	UART/SPI/I2C	UART/SPI/I2C	UART/SPI/I2C	UART/I2C or UART/SPI	UART/SPI/I2C	UART/SPI/I2C	UART/SPI/I2C	UART/SPI/I2C	UART/I2C or UART/SPI
Accuracy (m)	<2.5	<2.5	<2.5	<2.5	<2.5	<1.5	<1.5	<1.5	<1.5	<2.5
I/O voltage level (V)	1.8	1.8	1.8	1.8	3.3	1.8	1.8	1.8	1.8	3.3
Max update rate (Hz)	1-5	1-5	1-5	1-5	1-10	1-5	1-10	1-5	1-10	1-10
Internal memory	ROM	ROM	ROM	ROM	Flash	ROM	Flash	ROM	Flash	Flash
Constellation	GPS	GPS	GPS	GPS	GPS+GAL+GLO/BDS	GPS+GLO	GPS+GAL+GLO/BDS	GPS+GLO	GPS+GAL+GLO/BDS	GPS+GAL+GLO/BDS
GNSS SOC	SiRFstar IV B01	SiRFstar IV B01	SiRFstar IV B01	SiRFstar IV B01	MT3333	SiRFstar V B01	SiRFstar V B02	SiRFstar V B01	SiRFstar V B02	MT3333

SPIDER SERIES

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



	ORG4472-PMO4	ORG4475-PMO4	ORG4400-PMO4	ORG4033-MK05	ORG4500-R01	ORG4572-R01	ORG4572-R02/R04
Dimensions (LxWxH) mm	7x7x1.4	5.6x5.6x1.4	4.1x4.1x2.1	5.6x5.6x2.6	4.1x4.1x2.1	7x7x1.4	7x7x1.4
Weight (gr)	0.2	0.1	0.1	0.13	0.1	0.2	0.2
DC supply (v)	1.8	1.8	1.8	3.3	1.8	1.8	1.8 / 3.3
Interface	UART/SPI/I2C	UART/SPI/I2C	UART/SPI/I2C	UART/I2C or UART/SPI	UART/SPI/I2C	UART/SPI/I2C	UART/SPI/I2C
Accuracy (m)	< 2.5 m	< 2.5	< 2.5	< 2.5	< 1.5	< 1.5	< 1.5
I/O voltage level (V)	1.8 V	1.8	1.8	3.3	1.8	1.8	1.8
Max update rate (Hz)	1-5	1-5	1-5	1-10	1-5	1-5	1-10
Internal memory	ROM	ROM	ROM	Flash	ROM	ROM	Flash
Constellation	GPS	GPS	GPS	GPS+GAL+GLO/BDS	GPS+GLO	GPS+GLO	GPS+GAL+GLO/BDS
GNSS SOC	SiRFstar IV B01	SiRFstar IV B01	SiRFstar IV B01	MT3333	SiRFstar V B01	SiRFstar V B01	SiRFstar V B01