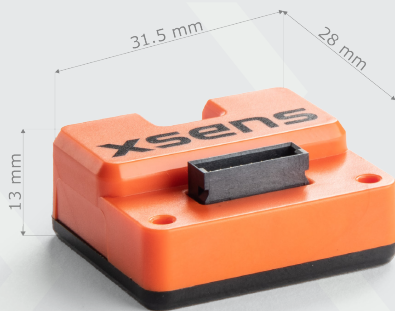


# Xsens MTi-670

- > Small, IP51 rated GNSS/INS
- > 0.2 deg roll/pitch & meter level position accuracy
- > Connects to external GNSS receiver



## Description

The MTi-670 is a GNSS/INS with a small form-factor design for deep integration into your outdoor application. Building on the proven Xsens MTi 600-series technology it enables a robust and easy to use meter level positioning and orientation tracking. It features an interface to an external GNSS receiver so you can efficiently design your application.

It is designed for easy integration and seamless interfacing with other equipment. The MTi-670 is supported by the MT Software Suite which includes MT Manager (GUI for Windows/Linux), SDK, example codes and drivers for many platforms including ROS.

- > White label and OEM integration options available
- > 3D models available on request

### Sensor fusion performance

Roll/Pitch	0.2 deg RMS
Yaw/Heading	0.8 deg RMS
Position	1m CEP1
Velocity	0.05m/s RMS

### Gyroscope

Standard full range	2000 deg/s
In-run bias stability	8 deg/h
Bandwidth (-3dB)	520 Hz
Noise Density	0.007 °/s/√Hz
g-sensitivity (calibr.)	0.1 °/s/g

### Accelerometer

Standard full range	10 g
In-run bias stability	10 (x,y) 15(z) mG
Bandwidth (-3dB)	500 Hz
Noise Density	60 mG/√Hz

### Magnetometer

Standard full range	+/- 8 G
Total RMS noise	1 mG
Non-linearity	0.2%
Resolution	0.25 mG

### GNSS receiver

Brand	Generic NMEA or u-blox, beta:SBF/GSOF
Model	external
RTK correction input	external
RTCM input port	external

### Barometer

Standart full range	300-1250 hPa
---------------------	--------------

Total RMS noise	1.2 Pa
Relative accuracy	+/- 8 Pa (~0.5m)

### Mechanical

IP-rating	IP51
Operating Temperature	-40 to 85 °C
Casing material	PC-ABS
Mounting orientation	No restriction, full 360° in all axes
Dimensions	28x31.5x13 mm
Connector	Main: Phoenix Contact 16 pin, 1.27 mm pitch
Weight	8.9 g
Certifications	CE, FCC, RoHS

### Electrical

Input voltage	4.5 to 24V
Power consumption (typ)	<0.5 W

### Interfaces / IO

Interfaces	UART, CAN, RS232
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA) or CAN
Clock drift	1 ppm (external)
Output Frequency	Up to 2 kHz, 400 Hz SDI
Built-in-self test	Gyr, Acc, Mag, Baro, GNSS

### Software Suite

GUI (Windows/Linux)	MT Manager, Firmware updaters, Magnetic Field Mapper
SDK (Example code)	C++, C#, Python, Matlab, Nucleo, public source code
Drivers	LabVIEW, ROS, GO
Support	Online manuals, community and knowledge base

Unless stated otherwise, all specifications are typical. Specifications subject to change without notice. This document is informational and not binding. Complete and detailed specifications are available at [mtdocs.movella.com](http://mtdocs.movella.com)