

# Xsens MTi-670G

- > Rugged, IP68 rated GNSS/INS
- > 0.2 deg roll/pitch & meter level position accuracy
- > Internal u-blox ZED F9 GNSS receiver



## Description

The MTi-670G is a GNSS/INS with a ruggedized housing featuring IP68 protection against environmental influences. Building on the proven Xsens MTi 600-series technology it enables a robust and easy to use meter-level positioning and orientation tracking for outdoor applications.

It features an incredibly powerful onboard u-blox ZED F9 GNSS receiver to provide superior positioning performance. It is designed for easy integration and seamless interfacing with other equipment. The MTi-670G 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) °/g
Bandwidth (-3dB)	500 Hz
Noise Density	60 °/g/√Hz

### Magnetometer

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

### GNSS receiver

Brand	u-blox
Model	ZED F9
RTK correction input	n/a
RTCM input port	n/a

### Barometer

Standard full range	300-1250 hPa
Total RMS noise	1.2 Pa
Relative accuracy	+/- 8 Pa (~0.5m)

### Mechanical

IP-rating	IP68
Operating Temperature	-40 to 85 °C
Casing material	Aluminum
Mounting orientation	No restriction, full 360° in all axes
Dimensions	56.5x40.9x36.75 mm
Connector	Main: ODU (AMC HD 12 pins) RTCM: DNC Antenna: S
Weight	98 g
Certifications	CE, FCC, RoHS

### Electrical

Input voltage	4.5 to 24V
Power consumption (typ)	<1 W

### Interfaces / IO

Interfaces	CAN, RS232
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA) or CAN
Clock drift	1 ppm
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 updater, 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