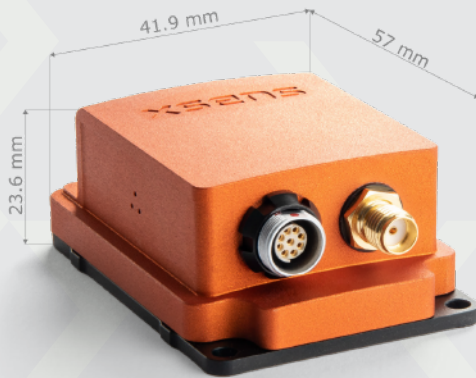


Xsens MTi-G-710

- High-performance product line
- 0.2 deg in roll/pitch, 0.8 deg in heading accuracy
- Complete SDK and development kits available



Description

The MTi-G-710 features vibration-rejecting gyroscopes, and offers high-quality position, velocity, acceleration, and orientation, even in challenging environments.

With Xsens technology inside, the all-in-one sensor system supports optimized temperature calibration, high-frequency position and orientation output, and has configurable output settings for synchronization with any third-party device.

The MTi-G-710 is supported by the MT Software Suite which includes MT Manager (GUI for Windows/Linux), SDK, example codes and drivers for many platforms.

- 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	1.0 m (1 σ STD)
Velocity	0.05 m/s (1 σ STD)

Gyroscope

Standard full range	450 deg/s
In-run bias stability	10 deg/h
Bandwidth (-3dB)	415 Hz
Noise Density	0.01 °/s/√Hz
g-sensitivity (calibr.)	0.003 °/s/g

Accelerometer

Standard full range	20 g
In-run bias stability	15 μ g
Bandwidth (-3dB)	375 Hz
Noise Density	60 μ g/√Hz

Magnetometer

Standard full range	+/- 8 G
Total RMS noise	0.5 mG
Non-linearity	0.2%
Resolution	0.25 mG

Barometer

Standard full range	300-1100 hPa
Total RMS noise	3.6 Pa
Resolution	~0.08m

GNSS receiver

Brand	u-blox
Model	MAX-M8

Mechanical

IP-rating	IP67
Operating Temperature	-40 to 85 °C
Casing material	Aluminum
Mounting orientation	No restriction, full 360° in all axes
Dimensions	57x41.90x23.60 mm
Connector	Fischer SV
Weight	58 g
Certifications	CE, FCC, RoHS, MIL-STD-202

Electrical

Input voltage	3V3, 4.5V-34V
Power consumption (typ)	660 mW

Interfaces / IO

Interfaces	USB, RS232, RS422, UART
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA)
Clock drift	1 ppm
Output Frequency	Up to 2 kHz
Built-in-self test	Gyr, Acc, Mag

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

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 mtidocs.movella.com