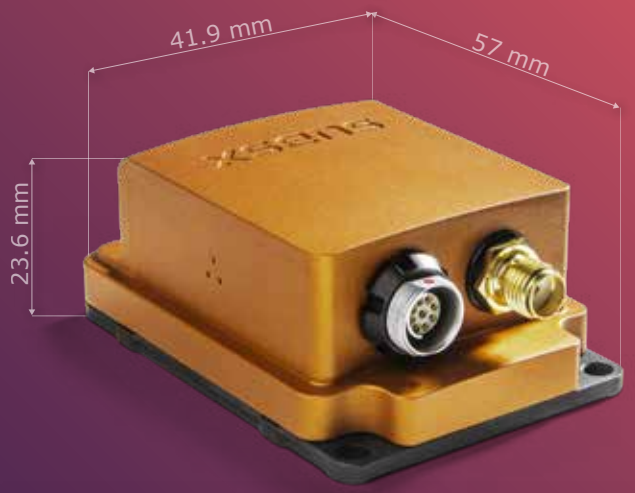
MTi-G-710

- **Movella's high-performance product line**
- **0.2 deg in roll/pitch, 0.8 deg in heading accuracy**
- **Complete SDK and development kits available**

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

This document is informational and not binding. Complete and detailed specifications are available at **mtidocs.movella.com**

Sensor fusion performance

Roll, Pitch	0.2 deg RMS
Yaw/Heading	0.8 deg RMS
Position	1.0 m (1σ STD)
Velocity	0.05 m/s (1σ STD)

Gyroscope

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

Accelerometer

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

Magnetometer

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

GNSS Receiver

Brand	u-blox
Model	MAX-M8
RTCM input port	n/a

Barometer

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

Mechanical

IP-rating	IP67
Operating Temperature	-40 to 85 ºC
Casing material	Aluminum
Mounting orientation	No restriction, full 360º 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 2kHz
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

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www.movella.com

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