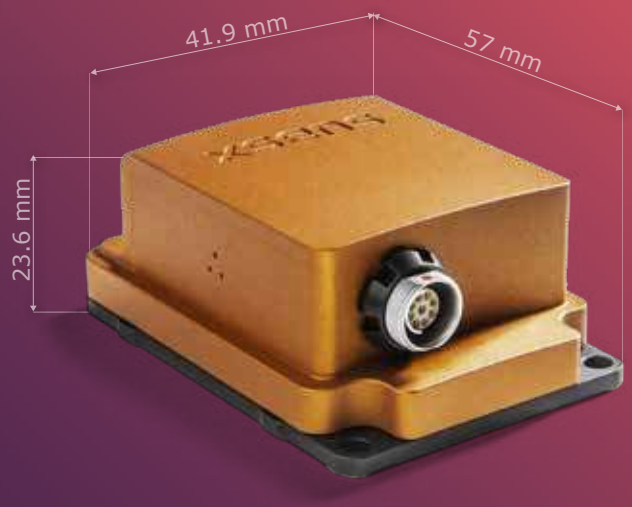
MTi-100

- **Movella's high-performance product line**
- **Market leading strapdown integration (SDI) and synchronization options**
- **Complete SDK and development kits available**

The MTi-100 features vibration-rejecting gyroscopes and offers high-quality inertial data, even in challenging environments.

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

The MTi-100 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

Accelerometer	Calibrated
Gyroscope	Calibrated
Strapdown Integration (SDI)	Yes

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

Barometer

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

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

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	55 g
Certifications	CE, FCC, RoHS, MIL-STD-202

Electrical

Input voltage	3V3, 4.5V-34V
Power consumption (typ)	520 mW

Interfaces / IO

Interfaces	USB, RS232, RS422, UART
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA)
Clock drift	10 ppm (or external)
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

Movella
www.movella.com

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