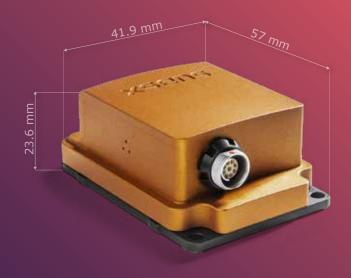
MTi-100

- 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 °/s/√Hz
g-sensitivity (calibr.)	0.003 °/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

IP67
-40 to 85 °C
Aluminum
No restriction, full 360° in all axes
57x41.90x23.60 mm
Fischer SV
55 g
CE, FCC, RoHS, MIL-STD-202

Electrical

Input voltage	3V3, 4.5V-34V
Power consumption (tvp)	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



