Xsens
Sirius IMU

- Achieve new levels of accuracy with high-quality calibrated IMU data
- Rugged and military standard certified
- Flexible interfaces and protocols for seamless integration

Description

The Xsens Sirius IMU features vibration- and shock-rejecting gyroscopes and offers high-quality inertial data, even in the harshest 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 Xsens Sirius IMU 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 options available
- 3D models available on request

Sensor fusion performance

Accelerometer	Calibrated
Gyroscope	Calibrated
Strapdown Integration (SDI)	Yes

Gyroscope

Standard full range	± 300 °/s
In-run bias stability	7 °/h
Bandwidth (-3dB)	400 Hz
Noise Density	0.003 °/s/√Hz
g-sensitivity (calibr.)	0.08 °/s/g

Accelerometer

Standard full range	± 8 g
In-run bias stability	15
Bandwidth (-3dB)	470 Hz
Noise Density	15 µg/√Hz

Magnetometer

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

Mechanical

IP-rating	IP68
Operating Temperature	-40 to +85 °C
Casing material	Aluminum
Mounting orientation	No restriction, full 360° in all axes
Dimensions	56.50 x 40.90 x 24.75 mm
Connector	Main: ODU (AMC HD 12 pins)
Weight	78.5 grams
Certifications	CE, FCC, RoHS, MIL-STD-202, ITAR free

Electrical

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

Interfaces / IO

Interfaces	RS232, RS422, CAN
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA), CAN
Clock drift	10 ppm (or external)
Output Frequency	Up to 400Hz
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, 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