

Xsens Sirius AHRS

- > Achieve new levels of accuracy with high-quality calibrated roll, pitch and yaw data
- > Vibration- and shock- resistant signal pipeline
- > Rugged and military standard certified
- > Flexible interfaces and protocols for seamless integration



Description

The Xsens Sirius AHRS features vibration- and shock-resistant signal pipeline and offers high-quality calibrated inertial and orientation data (roll, pitch, yaw), even in extreme vibration conditions.

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

The Xsens Sirius AHRS 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

Roll, Pitch	_____	0.2 ° RMS
Yaw/Heading	_____	<1 ° RMS
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 µg
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	_____	78.5g grams
Certifications	_____	CE, FCC, RoHS, MIL-STD-202, ITAR free

Electrical

Input voltage	_____	4.5V-24V
Power consumption (typ)	_____	520 mW

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