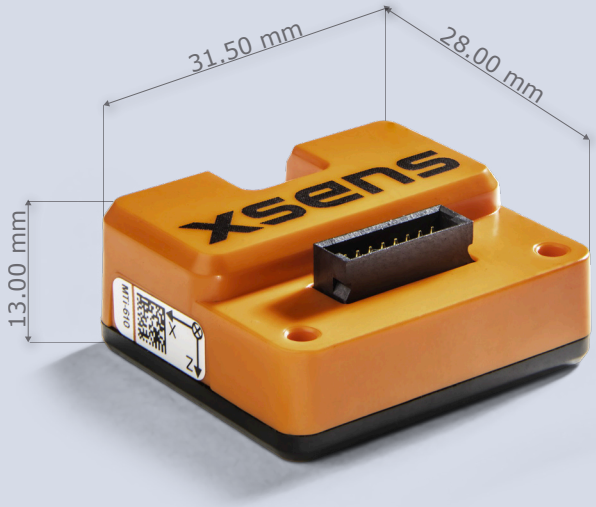
MTi-610

- **Small, IP51-rated IMU**
- **Factory-calibrated inertial data**
- **Full Graphical User Interface (GUI) and Software Development Kit (SDK) available**



The MTi-610 is a Inertial Measurement Unit with a small form-factor design for deep integration into your application. Building on the proven MTi 600-series technology it enables a robust and easy to use motion tracking. It is designed for easy integration and seamless interfacing with other equipment.

The MTi-610 is supported by the MT Software Suite which includes MT Manager (GUI for Windows/Linux), SDK, example codes and drivers for many platforms including ROS.

- White label and OEM integration options available
- 3D models available on request
- Available online via Digi-Key, Mouser, Farnell and local distributors

IMU performance

Accelerometer	Calibrated
Gyroscope	Calibrated
Strapdown Integration (SDI)	Yes

Gyroscope

Standard full range	2000 deg/s
In-run bias stability	8 deg/h
Bandwidth (-3dB)	520 Hz
Noise Density	0.007 º/s/√Hz
g-sensitivity (calibr.)	0.1 º/s/g

Accelerometer

Standard full range	10 g
In-run bias stability	10 (x,y) 15(z) µg
Bandwidth (-3dB)	500 Hz
Noise Density	60 µg/√Hz

Magnetometer

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

Barometer

Standard full range	300-1250 hPa
Total RMS noise	1.2 Pa
Relative accuracy	+/- 8 Pa (~0.5m)

Complete and detailed specifications are available at **mtidocs.xsens.com**

Mechanical

IP-rating	IP51
Operating Temperature	-40 to 85 ºC
Casing material	PC-ABS
Mounting orientation	No restriction, full 360º in all axes
Dimensions	28x31.5x13 mm
Connector	Main: Phoenix Contact 16 pin, 1.27 mm pitch
Weight	8.9 g
Certifications	CE, FCC, RoHS

Electrical

Input voltage	4.5 to 24V
Power consumption (typ)	<0.5 W

Interfaces / IO

Interfaces	UART, CAN, RS232
Sync Options	SyncIn, SyncOut, ClockSync
Protocols	Xbus, ASCII (NMEA) or CAN
Clock drift	10 ppm (or external)
Output Frequency	Up to 2kHz, 400Hz SDI
Built-in-self test	Gyr, Acc, Mag, Baro

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	BASE by XSENS: online manuals, community and knowledge base