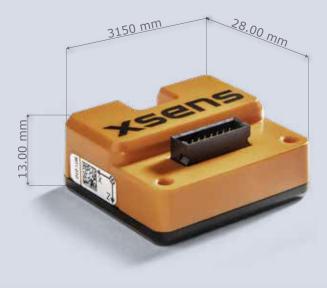
## MTi-680

- Small, IP52-rated RTK GNSS/INS
- 0.2 deg roll/pitch & cm-level position accuracy
- Connects to external RTK GNSS receiver

The MTi-680 is an RTK GNSS/INS 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 cm-level positioning and orientation tracking. It features an interface to an external RTK GNSS receiver so you can efficiently design your application. It is designed for easy integration and seamless interfacing with other equipment.

The MTi-680 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 at DigiKey, Mouser, Farnell, Arrow and local distributors

Sensor Fusion Performance		Mechanical	
Roll, Pitch	0,2 deg RMS	IP-rating	IP51
Yaw/Heading	0.5 deg RMS	Operating Temperature	-40 to 85 °C
Position	<1 cm CEP	Casing material	PC-ABS
Velocity	0.05m/s RMS	Mounting orientation	- No restriction, full 360° in all axes
Gyroscope		Dimensions	– 28x31.5x13 mm
Standard full range	2000 deg/s	Connector	<ul> <li>Main: Phoenix Contact 16 pin, 1.27 mm</li> </ul>
In-run bias stability	8 deg/h		pitch
Bandwidth (-3dB)	520 Hz	Weight	— 8.9 g
Noise Density	0.007 º/s/√Hz	Certifications	- CE, FCC, RoHS
g-sensitivity (calibr.)	0.001 º/s/g	Electrical	
Accelerometer		Input voltage	- 4.5 to 24V
Standard full range	10 g	Power consumption (typ)	— <1 W
In-run bias stability	10 (x,y) 15(z) µg	Interfaces / IO	
Bandwidth (-3dB)	500 Hz	Interfaces	UART, CAN, RS232
Noise Density	60 µg/√Hz	Sync Options	- SyncIn, SyncOut, ClockSync
Magnetometer		Protocols	- Xbus, ASCII (NMEA) or CAN
Standard full range	+/- 8 G	Clock drift	<ul> <li>– 1ppm (external)</li> </ul>
Total RMS noise	1 mG	Output Frequency	<ul> <li>Up to 2 kHz, 400 Hz SDI</li> </ul>
Non-linearity	0.2%	Built-in-self test	- Gyr, Acc, Mag, Baro, GNSS
Resolution	0.25 mG		
		Software Suite	
GNSS Receiver		GUI (Windows/Linux)	MT Manager Firmware updater,
Brand	External		Magnetic Field Mapper
Model	External	SDK (Example code)	C++, C#, Python, Matlab, Nucleo,
RTCM input port	External		public source code
Barometer		Drivers	- LabVIEW, ROS, GO
Standard full range	300-1250 hPa	Support	BASE by XSENS: online manuals,
Total RMS noise	1.2 Pa		community and knowledge base
Relative accuracy	+/- 8 Pa (~0.5m)		



