MTi-670

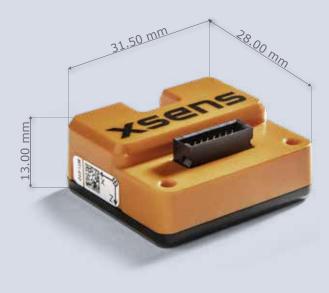
• Small, IP51-rated GNSS/INS

• 0.2 deg roll/pitch & sub-meter level position accuracy

• Connects to external GNSS receiver

The MTi-670 is a Global Navigation Satellite System/Inertial Navigation System (GNS-S/INS) with a small form-factor design for deep integration into your application. It is easy to use, enabling robust sub-meter level positioning and orientation tracking. Its interface to an external GNSS receiver means you can design your application with maximum efficiency. This GNSS/INS module is designed for easy integration and seamless interfacing with other equipment.

The MTi-670 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

• Available online via Digi-Key, Mouser, Farnell and local distributors

Sensor Fusion Performance		Mechanical	
Roll, Pitch	0,2 deg RMS	IP-rating	– IP51
Yaw/Heading	0.8 deg RMS	Operating Temperature	-40 to 85 °C
Position	<1m CEP	Casing material	PC-ABS
Velocity	0.05m/s RMS	Mounting orientation	- No restriction, full 360° in all axes
Gyroscope		Dimensions	28x31.50x13 mm
Standard full range	2000 deg/s	Connector	Main: Phoenix Contact 16 pin, 1.27 mm
In-run bias stability	8 deg/h		pitch
Bandwidth (-3dB)	520 Hz	Weight	– 8.9 g
Noise Density	0.007 °/s/√Hz	Electrical	
g-sensitivity (calibr.)	0.001 º/s/g	Input voltage	4.5 to 24V
Accelerometer		Power consumption (typ)	<1 W
Standard full range	10 g	Interfaces / IO	
In-run bias stability	10 (x,y) 15(z) μg	Interfaces	UART, CAN, RS232
Bandwidth (-3dB)	500 Hz	Sync Options	SyncIn, SyncOut, ClockSync
Noise Density	60 µg/√Hz	Protocols	Xbus, ASCII (NMEA) or CAN
Magnetometer		Clock drift	10 ppm (or external)
Standard full range	+/- 8 G	Output Frequency	2 kHz, 400 Hz SDI
Total RMS noise	1 mG	Built-in-self test	Yes
Non-linearity	0.2%	Software Suite	
Resolution	0.25 mG	GUI (Windows/Linux)	– MT Manager Firmware updater,
GNSS Receiver			Magnetic Field Mapper
Brand	External	SDK (Example code)	C++, C#, python, Matlab, Nucleo,
Model	External		public source code
RTCM input port	External	Drivers	LabVIEW, ROS, GO
Barometer		Support	BASE by XSENS: online manuals,
Standard full range	300-1250 hPa		community and knowledge base
Total RMS noise	1.2 Pa		
IULAI KIMS HOISE	1.2 Fd		





Relative accuracy

+/- 8 Pa (~0.5m)