MTi 600
SERIES

IMU | VRU | AHRS | GNSS/INS

- Industrial grade, highly affordable, MEMS-based orientation sensor
- Full-featured sensor fusion algorithm with easy to use SDK
- 4 integration levels available: IMU, VRU, AHRS and GNSS/INS
- Native CAN interface and external GNSS receiver support

Product Overview

	MTi-610 IMU	MTi-620 VRU	MTi-630 AHRS	MTi-670 GNSS/INS
Calibrated sensor data (gyr/acc/mag data)	✔	✔	✔	✔
Roll/Pitch		0.2°	0.2°	0.2°
Yaw		✔	1.5°	1°
GNSS interface				✔

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Sensor specifications

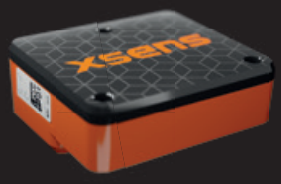
	Gyroscopes	Accelerometers
Full range	+/- 2000 °/s	+/- 10 g
In-run bias stability	8 °/h	15 µg
Bandwidth (-3 dB)	520 Hz	500 Hz
Noise density	0.007 °/s/√Hz	60 µg/√Hz
g-sensitivity (calibrated)	0.001 °/s/g	N/A
Non-orthogonality	0.05 °	0.05 °
Non-linearity	0.1%	0.1%

	Magnetometer	Barometer
Full range	+/- 8 G	300-1250 hPa
Total RMS noise	1 mG	1.2 Pa
Non-linearity	0.2%	n/a
Resolution	0.25 mG	+/- 8 Pa (~0.5m)

System specifications

Input voltage	4.5 to 24V	Interfaces	CAN/RS232/UART
Typical power consumption	340 mW	Sync options	SyncIn, SyncOut, ClockSync
IP-rating	IP51	Interface protocol	Xbus, ASCII (NMEA) or CAN
Temperature (in use)	-40 to 85 °C	Mounting orientation	No restriction, full 360° in all axes
Casing material	PC-ABS	Built-in self test (BIT)	Gyroscopes, accelerometers, magnetometer
Clock drift	10 ppm or external reference	MTBF	TBD
Output frequency	1kHz, 400Hz SDI	External GNSS receiver support	UBX protocol (MAX M8) and NMEA input

MTi 600-series Development Kit:
MTi, Development board, UART2USB, USB cable
(MTi-670-DK: GNSS daughter card, GNSS antenna)



MTi encased:
31.5x28x13 mm, <10g,
16-pins header

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