System specifications

Input voltage	4.5 to 24V
Typical power consumption	340 mW
IP-rating	IP51
Temperature (in use)	-40 to 85 °C
Casing material	PC-ABS
Clock drift	10 ppm or external reference
Output frequency	1kHz, 400 Hz SDI

Interfaces	CAN/RS232/UART
Sync options	SyncIn, SyncOut, ClockSync
Interface protocol	Xbus, ASCII (NMEA) or CAN
Mounting orientation	No restriction, full 360° in all axes
Built-in self test (BIT)	Gyroscopes, accelerometers, magnetometer and barometer
External GNSS receiver support	UBX protocol (MAX M8) and z NMEA protocol

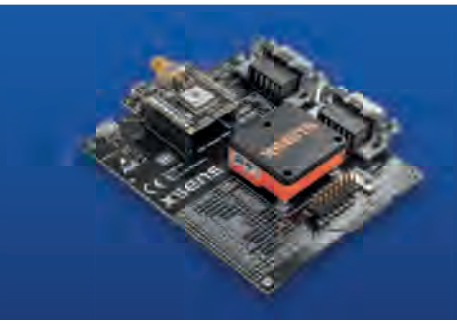
Supported GNSS receivers

Manufacturer	GNSS Reciever	Protocol
U-blox	MAX-M8	UBX
U-blox	NEO-M8, ZED-F9 (beta)	UBX
Generic	Any (beta)	NMEA (GGA, GSA, GST, RMC)

Sensor specifications

	Gyroscopes	Accelerometers
Standard full range	± 2000 °/s	± 10 ug
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
Standard 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)



MTi 600-series Development Kit:

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