



INERTIAL NAVIGATION SYSTEM (INS)

GNSS-Aided Inertial Navigation System

INTERFACES

Aiding sensors	: GNSS, RTCM, NTRIP, Odometer, DVL
Protocols	: NMEA, ASCII, REST API
Ethernet	: Full duplex (10/100 base T) PTP / NTP, NTRIP, Web interface, FTP
Datalogger	: 8 GB or 48 h @ 200 Hz
Serial ports	: 3x TTL UART, full duplex
CAN	: 1x CAN 2.0 A/B bus, up to 1 Mbps
Output rate	: 200Hz (IMU, INS)
I/O	: 4x: Inputs: PPS, Events in up to 1 kHz 2x Outputs: SYNC out, PPS, LEDs drivers for status display
Connectors	: FISCHER ULTIMATE™ SERIES size 11

GNSS

Features	: SBAS, RTK, PPK, RTX
Channel	: 336
Signals	: GPS: L1 C/A, L2E, L2C, L5 BeiDou: B1, B2, B313 GLONASS: L1 C/A, L2 C/A, L3 CDMA14 Galileo2: E1, E5A, E5B, E5AltBOC, E614 IRNSS: L5 SBAS: L1 C/A, L5 QZSS: L1 C/A, L1 SAIF, L1C, L2C, L5

MECHANICAL & ENVIRONMENTAL

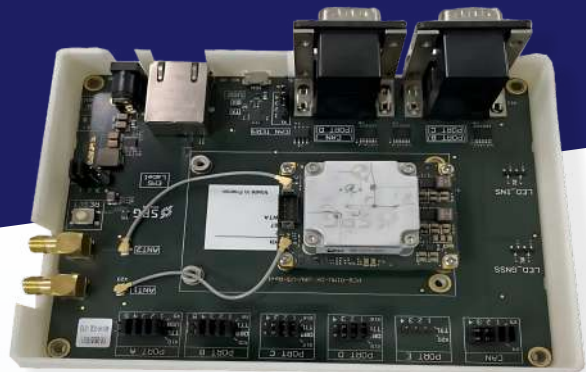
Parameter	Single Point	RTK	PPK
Roll/Pitch	0.03°	0.02°	0.015°
Heading Single ant.*	0.1°	0.08°	0.035°
Heading Dual ant. 2m	0.06°	0.06°	0.035°
Velocity	0.05 m/s	0.02 m/s	0.01 m/s
Position(m)	1.00 (H) 1.50 (V)	0.008 (H) 0.015 (V)	0.003(H) 0.008(V)

MECHANICAL & ENVIRONMENTAL

Dimensions	: 50 x 37 x 23 mm
Weight	: 38 g
Temperature range	: -40 to 85°C
Operating vibrations	: 8 g RMS (MIL-STD-810G)
IMU Sensor range	: 490°/s 40g
Operational limits	: 500 m/s 80 km altitude
MTBF (computed)	: 50,000 h

ELECTRICAL

Power supply range	: 12V DC +/- 10%
Power consumption	: 1.1W
Antenna Ports	: 5V DC – max 150 mA Gain: 17 - 50 dB



KEY FEATURES OF (IMU)

- » Roll/Pitch: 0.03°
- » Heading Single ant.: 0.1°
- » Heading Dual Antenna, 2m: 0.06°
- » Survey grade MEMS IMU maximizes performance and robustness
- » Multi-frequency, IRNSS/Navic capable, quad-constellation GNSS, delivering cm accuracy
- » Fast & robust dual antenna heading
- » User friendly web interface

APPLICATIONS



SUBSEA:

- » ROVs
- » AUVs
- » Subsea Sonars



MARINE:

- » USVs
- » Ship Motion
- » Buoys
- » Single/Multi-beams Solar
- » Perf. Sailing



GROUND:

- » Car Motions
- » UGVs
- » LiDAR & Scan
- » Machine Control



AEROSPACE:

- » UAVs
- » Avionics
- » LiDAR & Cameras
- » Flight Rec.



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