

Technical Specifications

Performance

Update rate (Hz)	> 60
Start-up time valid data (sec)	< 10

Attitude

Roll range (°)	±180
Pitch range (°)	±90
Resolution (°)	0.1
Static accuracy (°)	< 1.5
Dynamic accuracy (°)	Note *

Heading

Range (°)	±180	
Resolution (°)	0.1	
Static accuracy (°)	< 2	Note**
Dynamic accuracy (°)	< Note*	Note**

Rate Sensors

Range (°/sec)	300
Resolution (°/sec)	< 0.1
Bandwidth (Hz)	20

Acceleration Sensors

Range (G)	-1 to +3
Resolution (mG)	5
Bandwidth (Hz)	10

Magnetics

Range (Gaus)	-0.8 to +0.8
Resolution (nT)	30
Bandwidth (Hz)	10

Environment

Operating temperature (°C)	-20 to +70
Compensated temp range (°C)	0 to +60
Non operating temp (°C)	-40 to + 85

Electrical

Input Voltage (Vdc)	10 to 30 V
Input current (mA)	320 @ 12V
Communications	RS485

Physical

Size (mm)	47 x 47 x 14
Weight (gr)	28

Processing Performance

Processor	32 bit DSP @ 150 MHz
Kalman processing	60Hz
Data update rate	60Hz

Serial Communications Standard Data Format

Port	RS232/RS 422 38400 Bd
Data	Roll, Pitch, Yaw, Rate of Turn, Slip, G's

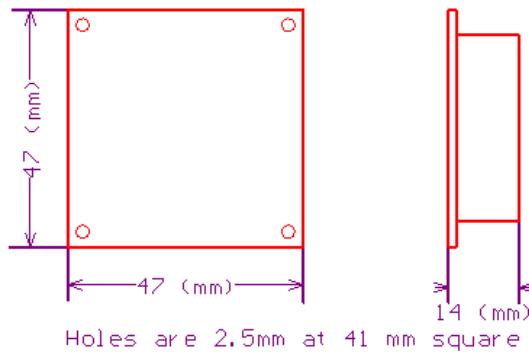
Serial Communications Extended Data Format

Port	RS232/RS 422 115200 Bd
Data	Roll, Pitch, Yaw, Rate of Turn, Slip, G's p, q, r, Ax, Ay, Az, Hx, Hy, Hz, Tp, Tq, Tr

Note * < 5° (1 sigma)

Note ** Depending on the quality of Hard Iron Calibration and constant magnetic environment of the vehicle

Dimensions



For further information, contact:

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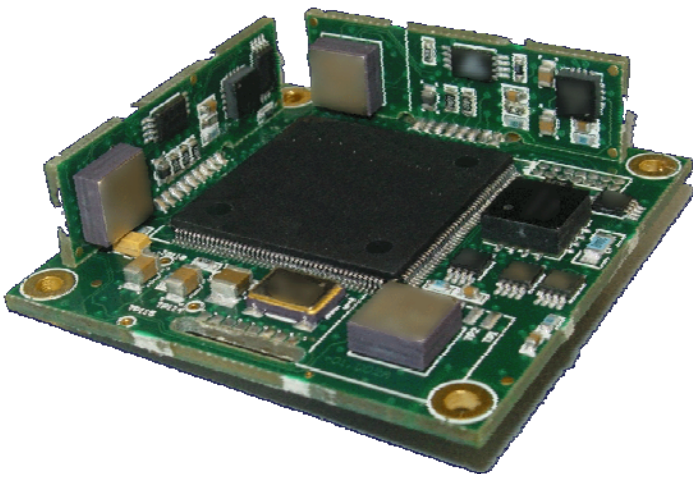
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PICO sub-miniature AHRS



Features

- Roll, Pitch and Heading Angles in Dynamic Environments
- On Board Processing
- Proprietary Kalman Filter Algorithm
- Standard MEMS sensors
- Temperature compensated

Applications

- Robotic Applications
- Platform Stabilization
- Hand Held Applications
- Roll, Pitch and Yaw Damping
- Under Water Vehicles
- Vehicle Behavior Measurement
- Head and Body Tracking

The **PICO** Attitude Heading Reference System (AHRS) is a low-cost solid-state six-degree-of freedom (6DOF) AHRS intended for OEM Navigation and Control, dynamics testing and instrumentation applications. This small but powerful reference system provides measurement of angular displacement in the 3 main axes.