



AHA-NAV-004

Gyroscope

| | | | |
|---------------------------|-----------------------------|-------|---------|
| Dynamic Range | ±2000 | | °/sec |
| Sensitivity | 32-bit format | 3.0 | μ °/sec |
| Error over Temperature | -10°C ≤ TC ≤ +75°C | ±0.25 | % |
| Misalignment | Axis to axis | ±0.1 | Degrees |
| Nonlinearity ¹ | Full scale (FS) = 2000°/sec | ±0.25 | %FS |
| In Run Stability | 5.0 | | °/hr |
| Angular Random Walk | 0.1 | | °/√hr |
| Error over Temperature | -10°C ≤ TC ≤ +75°C, 1 σ | 0.2 | °/sec |
| Sensor Resonant Frequency | 66 | | kHz |

Accelerometer

| | | | |
|---------------------------|-------------------------|-------|-----------|
| Dynamic Range | ±40 | | g |
| Sensitivity | 32-bit format | 0.04 | μ g |
| Error over Temperature | -10°C ≤ TC ≤ +75°C | ±0.1 | % |
| Misalignment | Axis to axis | ±0.1 | Degrees |
| Nonlinearity ¹ | Full scale (FS) = ±40 g | ±0.02 | %FS |
| In Run Stability | 2.0 | | μg |
| Velocity Random Walk | 0.04 | | m/sec/√Hr |
| Error over Temperature | -10°C ≤ TC ≤ +75°C, 1 σ | ±4 | mg |
| Sensor Resonant Frequency | y-axis, z-axis | 5.65 | kHz |
| | x-axis | 5.25 | kHz |

Temperature Sensor

| | | |
|-------------|-----|----|
| Sensitivity | 0.1 | °C |
|-------------|-----|----|

General Spec.

| | | |
|------------------------------|--|-----|
| Operating Temperature | -25 to +85 | °C |
| mechanical shock | 2000 | g |
| Sample Rate | 100~1 (Optimum Default=20) | Hz |
| Accuracy in angles (as AHRS) | 0.10 | deg |
| In Run Stability (as AHRS) | 0.003 | deg |
| Vcc. | 4.2~5.2 | V |
| Dimensions: (Box) | 92.0*55.5*21.0 | mm |
| Interface | RS422-TTL-USB | - |
| Self-Test | YES | - |
| Output Type (on Command) | NO filtered Data Full Filtered Data | - |

Magnetometer

| | | |
|----------------------------|--------------|--------|
| Field Measurement Range | -800 to +800 | nT |
| Sensitivity | 1 | nT |
| Hysteresis over ±200 μT | 10 | nT |
| Linearity over ±200 μT | 0.2 | % |
| In Run Stability | 0.5 | nT |
| Noise Density | 0.02 | nT/√Hz |
| Repeatability over ±200 μT | 8 | nT |

APPLICATIONS: Cube-SAT. , Navigation, Stabilization, Unmanned and Autonomous vehicles, Multi-Rotors, VTOL, ...

High Performance Filters have been Applied.

Auto self-Calibrating Algorithms.

¹- Specifications @T_c = 25°C, VDD = 3.3 V, angular rate = 0°/sec, dynamic range = ±2000°/sec , ± 1 g