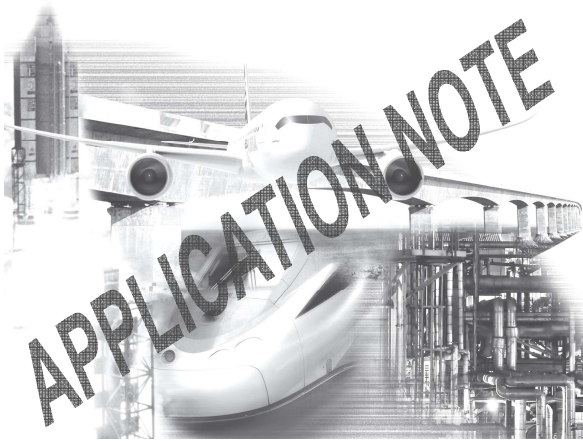


**Low cost – High performance MEM's IMU**



**MAIN FEATURES**

- **Weight <85g // Size: 50x40x40 mm**
- Angular rate sensors up to +/- 500°/s
- Accelerometers up to +/- 4 g
- Tilt sensors for Roll and Pitch attitude
- Operating temperature : -40°C to + 125°C
- Serial output RS232 or RS485 ModBus
- Built-in test
- Power supply 6V CC / consumption: 250 mA
- MTBF > 50 000 Hours ( MIL HDBK 217F, AIC 55°C )
- **Environmental qualification DO 160 E**
- **DO 178 – DAL B**

**GENERAL DESCRIPTION**

The **Low cost – High performance MEM's IMU** integrates three orthogonal angular rate sensors for measuring roll, pitch and yaw rates. Three accelerometers are used for measuring X, Y, Z acceleration and two tilt sensors can be fitted (option) for measuring the roll and pitch attitude of the unit. The output from each sensor is corrected for errors due to non-linearity, temperature drift and misalignment. Combining this with our own **REDS Technologie** allows an accuracy normally only reached with more expensive technologies.

**SPECIFICATIONS OVER -40 to +95°C T° RANGE**

<b>Gyrometers +/- 500°/s</b>	
Resolution	0.015°/s
Linearity error	<0.1% of FS
Cross coupling	<0.50 %
Bias stability - typical (1)	15°/h
Bias error OTR	+/-0.25°/s
Scale factor error	<0.5%
Angular random walk	50°/√(h)
Bias stability over 15 years	< +/-0.33°/s
Bandwidth - adjustable	1 to 40 Hz

<b>Accelerometers +/- 4g</b>	
Resolution	0.122 mg
Linearity error	+/-160 mg
Cross-axis sensitivity	<1mg/g
Bias error OTR	< +/-25 mg
Scale factor error	< +/-0.5%
Noise	< 50µg/√ Hz
Long term stability—over 15 years	< +/-50 mg
Bandwidth - adjustable	1 to 40 Hz

(1) – Allan variance method

**APPLICATIONS:**



Backup Control Module



Secondary flight Display



Auto pilot