

iIMU-FSAS-E-EI-SN

FOG Based IMU with Trigger and Integrated Power Regulation

The iIMU-FSAS-E-EI-SN is a very small size IMU consisting of 3 fiber optical gyros (FOG) in closed-loop technology of class 0.75 deg/hr and 3 servo-accelerometers of class 1.5 mg.

- < 0.75 deg/hr / 1.5 mg / 500 Hz
- higher MTBF than RLG systems
- automotive and airplane motion dynamics testing
- Stabilisation tasks
- INS/GPS navigation
- Surveying applications
- Guidance and Control
- UAV applications
- odometer interface (iMWS)
- used in many countries / applications worldwide



surveying applications. As a standard the unit is delivered hard-mounted, i.e. without internal shock-absorbers. The iIMU-FSAS-E-EI-SN can be operated on a unregulated wide range input

supply voltage and is protected against wrong polarity. The data output can be triggered and the data are sent via a serial protocol. All signals are fed via an robust connector of type MIL-C-38999-III.

The iIMU-FSAS-E-EI-SN is manufactured in Germany.

iMAR's iIMU-FSAS-E-EI-SN is

The IMU comes with an interface for direct RS232/RS422 communication. It is designed for ruggedized motion testing and

operation in many countries like China, India, Canada, Korea, UK, Belgium, Austria, Switzerland, Poland, Ireland...

Technical Data of iIMU-FSAS-E-EI-SN:

	Angular Rate	Acceleration
Sensor Range:	± 450 °/s	± 5 g
Bias:	< 0.75 deg/hr (1 sigma)	< 1.5 mg
Resolution:	0.1 arcsec / LSB	0.05 / 2 ¹⁵ m/s/LSB
Linearity / Scale error:	< 0.03 % / 0.03 %	< 0.04 % / 0.15 %
Angular random walk:	0.1 °/√h	< 50 µg/√Hz
Output:	3 x angular increment + 3 x velocity increment, odometer support	
Axis Misalignment:	< 0.15 mrad between all sensor axes	
Digital Interface:	RS422 (UART)	
Odometer input:	compatible to iMWS type magnetic wheel odometer	
Connector:	MIL-C-38999-III, 22 pin (male), type D38999/24WC35PA	
Data rate:	0...500 Hz; gyro bandwidth 250 Hz	
Temperature, Shock, Vibration:	-40...+71 °C (operating, case temperature), -40...+85 °C (storage) 60 g, 11 ms; 10...2000 Hz 6.3 g rms (endurance)	
Magnetic Insensitivity:	< 0.1 deg/hr / Gauss (< 20 Gauss)	
Environment / MTBF/ MTTR:	IP67 / 35.000 hrs (estimated) / 10 minutes	
Size, Weight:	iIMU-FSAS-E-EI-SN: 128 x 128 x 104 mm (plus connector), approx. 2100 grams	
Power, Start-up-Time:	11...34 V DC ; 20 W (max); < 1 sec; reverse-voltage protection	

Please do not hesitate to contact us for further information.

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