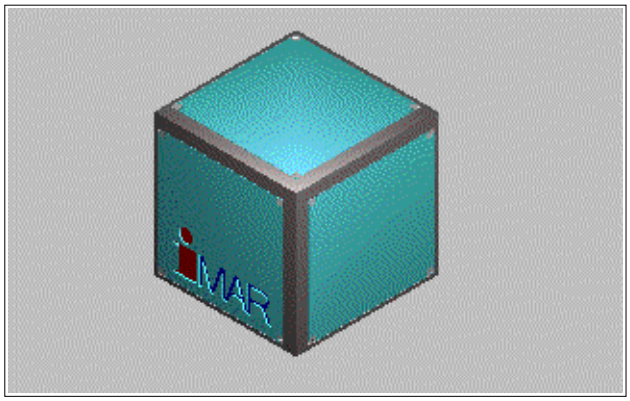
GESELLSCHAFT FÜR INERTIALE MESS-, AUTOMATISIERUNGS- UND REGELSYSTEME MBH

iTGAC-FOSA

Triaxial Sensor Cube
with Fiber Optical Gyros and Servo Accelerometers

For several years iMAR has been producing highly precise inertial measurement systems, featuring fiber-optical gyros, mechanical gyros or ring laser gyros in strap-down technique. Due to an intensive data processing by powerful process computers and the use of well-selected sensors these systems achieve outstanding results concerning bandwidth and shock resistance as well as a highly flexible systems configuration.



With iTGAC a product family is provided for dynamically motion analysis that covers applications which require a medium accuracy and a simple using. iTGAC-FOSA is a triaxial gyro cube with three orthogonal mounted rugged fiber optical gyroscopes and three servo-accelerometers with analog output.

As option the high precision data acquisition and processing unit IPAS (24 Bit ADC @ 200 Hz) is available to transmit the data via RS232 to a host computer.

Typical Technical Data:

Triaxial Gyro and Accelerometer Cube (ω_x, ω_y, ω_z , a_x, a_y, a_z):		
Range:	± 200 deg/s (50 to 700 deg/s optional)	±25 g
Bias stability:	< 160 µV	< 1 mg
Resolution:	< 50 µV	< 0.1 mg
Linearity error:	< 0.2 % (compensated)	< 0.1 %
Output:	± 5 V	± 12.5 V
g-sensitivity:	none	
Noise (0-100 Hz):	< 100 µV/$\sqrt{Hz}$	
Bandwidth:	0...100 Hz (optional up to 300 Hz)	50 Hz
Power:	9...18 V DC or 18...34 V DC	
Output:	15 pin SUB-D analog	
Temperature:	-30...+70 °C	
Shock:	100 g, 6 ms	
Weight:	< 900 grams (light weight version on request)	
Size:	ca. 80x80x108 mm (other on request)	

Information about iMAR's precision data acquisition system with 24 Bit resolution and RS232 interface on request (ask for IPAS). Please ask also for our strapdown calculation systems for determination of attitude and heading (RPY-angles ϕ, θ, ψ) and GPS/INS integration (iDIS and iNAV).

Please do not hesitate to contact us for further information.

iMAR GmbH • Schlackenbergstrasse 41 • D-66386 St. Ingbert / Germany
Phone: +49-(0)-6894-9657-0 • Fax: +49-(0)-6894-9657-22
http://www.imar-navigation.de • sales@imar-navigation.de