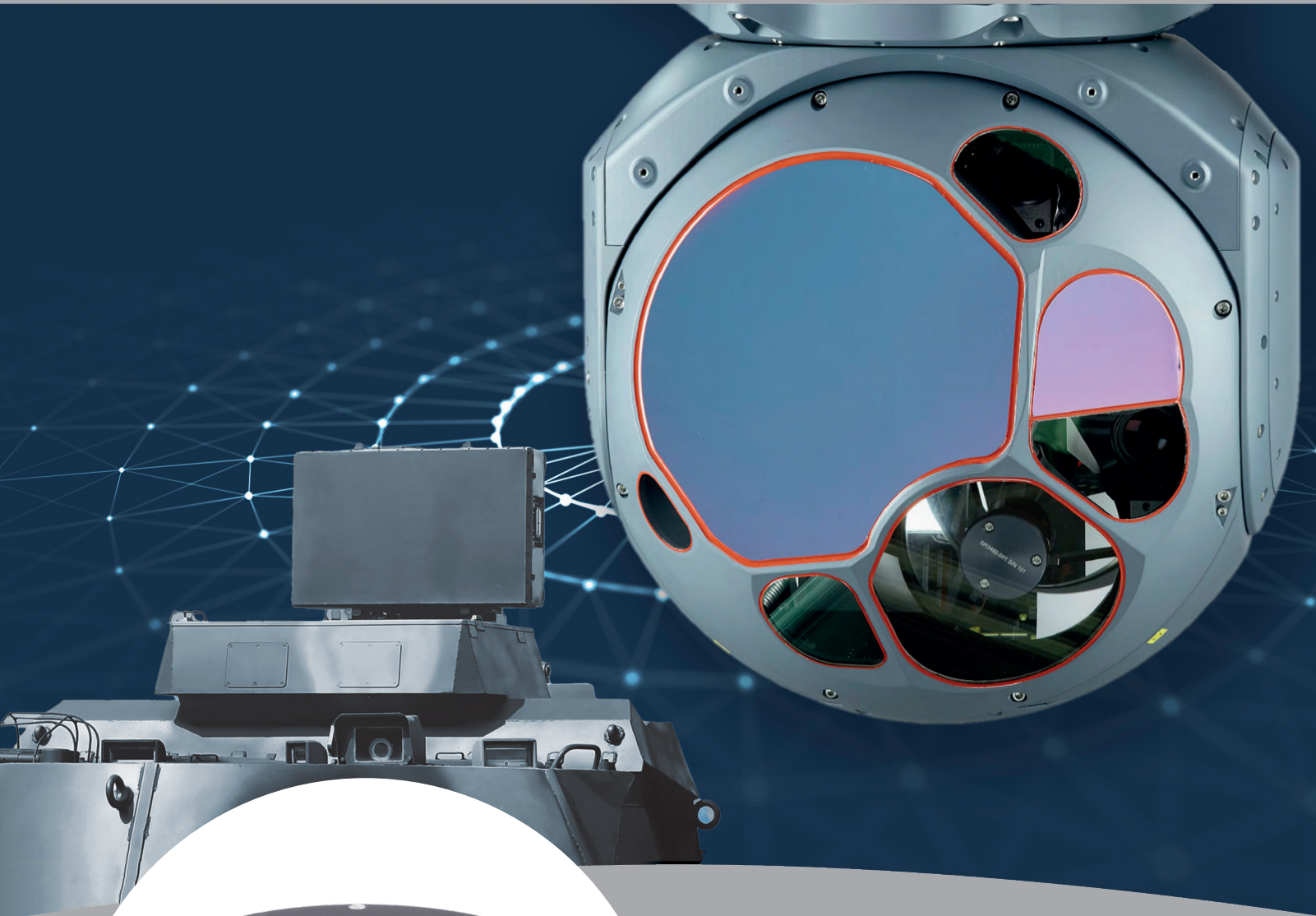


KRIO

Gyrocompass Navigation for Special Missions



EGI/AHRS/IMU
Gyrocompass and Stabilization

KRIO

Fiber Optic Gyro EGI/AHRS/IMU

KRIO is Civitanavi Systems' response to the requirement for a dual use, ITAR free Inertial Measurement Unit for commercial, defence and industrial applications providing customers with greater flexibility in its use, system accuracy and function.

The fully flexible design provides for a multiple range of capabilities from tactical through to a complete gyrocompassing AHRS function, weighing a mere 1.4Kg and consuming less than 4 Watts of input power, it is the world's lightest, smallest and lowest power consuming Inertial Measurement Unit available in the market today.

The EGI/AHRS version of the **KRIO** is capable of meeting the very demanding and precise navigation capability required by airborne applications.

All **KRIO** configurations can be installed with variations of software, including:

- Embedded GNSS INS (EGI)
- Attitude and Heading Reference System (AHRS)
- Motion Compensation
- Radar Stabilization
- Guidance
- Flight Control Software
- EO Stabilization

EGI /AHRS/IMU Gyrocompass capable	POSITION PERFORMANCES
Heading accuracy (1σ): 0.2 deg seclat	Horizontal Accuracy (GNSS aided): 2m CEP50
Roll/Pitch (1σ): 0.1 deg	Vertical Accuracy (1σ): 2m
Embedded aiding source: GNSS (RTK optional)	
IMU GYROSCOPES	
Type: Closed loop FOG	INTERFACES
Bias stability (1σ): < 0.006 deg/h	1 Full duplex RS-422 and optional SDLC
Bias repeatability (1σ): 0.05 deg/h	
ARW: < 0.0055 deg/sqrt(h)	
Scale factor accuracy (1σ): 25 ppm	ENVIRONMENTAL
Scale factor linearity (1σ): 10 ppm	Operating Temperature: -40°C to 71°C
Range: ± 400 dps	EMI/Vibration/Shock: DO-160G
Bandwidth (-3dB): > 500 Hz (optional > 1k Hz)	
IMU ACCELEROMETERS	
Type: Quartz	PHISICAL
Bias stability: < 10 μ g	Size (WxHxD): 130x88x130 mm
Bias repeatability (1σ): 500 μ g	Mass: < 1.4 Kg
Scale factor accuracy (1σ): 100 ppm	
VRW: < 25 μ g/sqrt(Hz)	POWER SUPPLY
Range: ± 60 G	Power Consumption: < 4W
Bandwidth: > 500 Hz	Operative Voltage: 18 \div 36 VDC

