



KI-4903

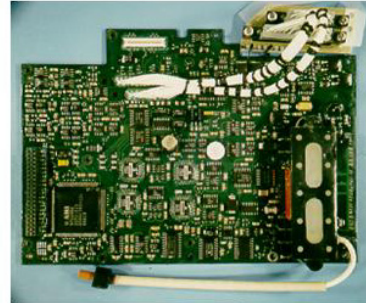
**HIGH
PERFORMANCE
INU KIT**

(T18 Gyro Based)

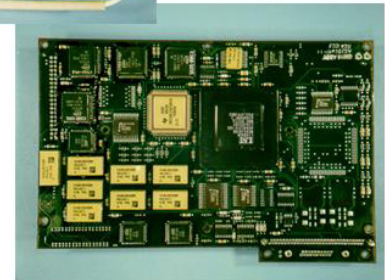
**MONOLITHIC RING LASER GYRO (MRLG)
INERTIAL NAVIGATION UNIT (INU)**



ISA



**ELECTRONICS
CARD SET**



Kearfott's KI-4903 INU is ideally suited for those applications requiring high performance in a compact form factor and exportability is required.

Kearfott's Inertial Navigation Unit's (INU's) are ideally suited for those applications requiring relatively high performance in a compact form factor, and at a cost compatible with large volume tactical programs. They are being produced for a variety of applications spanning the Kearfott land, air and sea market segments.

Cost, performance and size advantages have been achieved by incorporating the T18 MRLG and a MOD VIIA Accelerometer Triad into an Inertial Sensor Assembly (ISA), and developing the associated INU electronics to fit on a compact card assembly.

- ALL NAVIGATION COMPUTATIONS
 - Multiple Output Formats (MGRS, UTM, Geodetic)
 - At Sea & Land Moving align capable w/GPS aiding
 - Continuous "Align-On-The-Move"
 - Vehicle Dynamic Control
 - Weapon Stabilization
- MULTIPLE I/O PORTS
- INTERFACES WITH:
 - GPS
 - Sonar/Doppler (DVL)
 - Vehicle Speed Sensor
 - Odometer
- SIMPLIFIED ELECTRONICS
- HIGH RELIABILITY, LOW LIFE CYCLE COST
- WIDER RANGE OF EXPORTABILITY

FOR FURTHER INFORMATION ON THIS HIGH PERFORMANCE APPLICATION, TACTICAL APPLICATION OR ANY OTHER PRODUCT APPLICATIONS PLEASE CONTACT OUR BUSINESS DEVELOPMENT GROUP AT:(973) 785-6555 OR FAX (973) 785-5905

Visit our website: www.kearfott.com

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PERFORMANCE SUMMARY**		
PARAMETERS	GYRO	ACCELEROMETER
Random Walk	0.004°/√h	0.05 m/s/√h
Bias Repeatability	0.006°/h	100 μg
Scale Factor Repeatability	50 PPM	100 PPM
Axis Alignment	15 arc-second	20 arc-second
Bias Stability	0.004°/h	50 μg
Vibration Rectification	N/A	15 μg/g ² typical

Note: All parameter values listed are 1σ

DYNAMIC CONDITIONS**	
Acceleration Range	40 g's *
Attitude	unlimited
Roll, Pitch and Azimuth Angular Rate	300°/s
Roll, Pitch and Azimuth Accelerations	10,000°/s ²
Cooling	Free convection
Environmental Requirements	Per MIL-E-5400

PHYSICAL CHARACTERISTICS **	
Dimensions - ISA & IMU Electronics	ISA - 4.5" DIA. x 6.3" L, CCA's - 80 in ²
Weight - ISA & IMU Electronics	8.5 lb (6.5 lb ISA, <2 lb CCA's/Heatsink)
Power	+15 V, -15 V, +5 V, and < 30 Watts
Activation Time	< 5 s
Maintenance	BIT, 95% coverage
Calibration Interval	None

* Can be rescaled from 1 to 100g

** Performance, Operating Ranges, and Characteristics are tailorable for specific applications

