

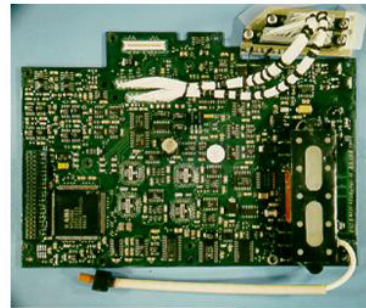


Kearfott Corporation
A Subsidiary of Astronautics Corporation of America
Guidance & Navigation Division

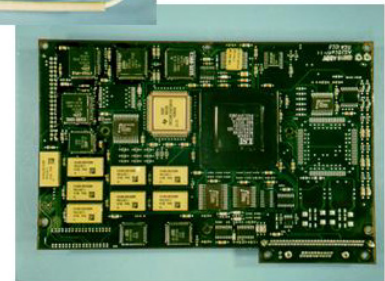
KI-4901

**HIGH
PERFORMANCE
INU KIT**

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



**ELECTRONICS
CARD SET**



Kearfott's KI-4901 INU is ideally suited for those applications requiring high performance in a compact form factor.

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 T24 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**

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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This sheet is for reference only, not as a basis for specifications. Detailed specifications and drawings are available on request.

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PERFORMANCE SUMMARY**		
PARAMETERS	GYRO	ACCELEROMETER
Random Walk	0.003°/√h	0.05 m/s/√h
Bias Repeatability	0.005°/h	100 μg
Scale Factor Repeatability	50 PPM	100 PPM
Axis Alignment	15 arc-second	20 arc-second
Bias Stability	0.003°/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

