KILAVUZ 12

TACTICAL GRADE INERTIAL MEASUREMENT UNIT

#Navigation



FIBER-OPTIC GYROSCOPES
MEMS ACCELEROMETERS

aselsan

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TACTICAL GRADE INERTIAL MEASUREMENT UNIT

KILAVUZ 12 is a Tactical Grade Inertial Measurement Unit, which is designed and developed by ASELSAN, to be used in systems like tactical inertial navigation system, guided munition kit, EO/FLIR stabilization and in many other applications. KILAVUZ 12 uses fiber optic gyroscopes and MEMS accelerometers for measurement of angular rate and acceleration of the platform. It has a small size, high reliability, low weight and low power consumption by using the advantages of the MEMS and fiber optic technology.

Applications

- Navigation, Guidance and Control
- EO/FLIR/Camera/Radar Stabilization

Gyro Performance Specifications

- Measurement Range : ±1500 °/s (±490 °/s)
- Angular Random Walk (const temp) : ≤0.020 °/√h
- Scale Factor (over temp) : ≤100 ppm (1σ)
- Misalignment (over temp) : ≤0.2 mrad (1σ)
- Bias (over temp) : ≤0.5 °/h (1σ)
- Bias Instability (const temp) : ≤0.5 °/h

Accelerometer Performance Specifications

- Measurement Range : ±40 g (±15 g)
- Velocity Random Walk (const temp) : ≤50 µg/√Hz
- Scale Factor (over temp) : ≤200 ppm (1σ)
- Misalignment (over temp) : ≤0.5 mrad (1σ)
- Bias Repeatability (run to run) : ≤1.5 mg (1σ)
- Bias Stability (over temp, in run) : ≤300 µg (1σ)
- Bias Instability (const temp) : ≤50 µg

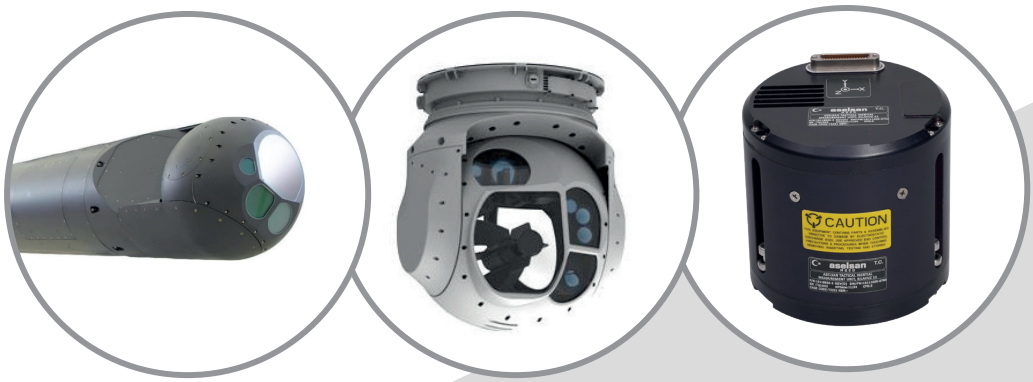
Physical/Electrical Specifications

- Stabilization Output Data Rate : 8 kHz
- Navigation Output Data Rate : 2 kHz
- Dimensions : Ø 94 mm x 96.1 mm (with connector)
- Weight : ≤ 900 g
- Input Voltage : +5 VDC, ±15 VDC
- Power Consumption : 16W (at temp extreme)
- Serial Interface : RS 422, UART

Environmental Specifications

- Operating Temperature : -40 to +71ºC
- Storage Temperature : -54 to +85ºC
- Vibration (functional) : 6 grms, 20 Hz... 2000 Hz
- Shock (functional) : 40 g 11 ms Halfsine

* Values in parentheses apply to civilian versions.



Specifications are subject to change without any notice. | All tolerances are within ±10%.

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