

Honeywell

THE POWER OF **CONNECTED**

SPECIALIZED INERTIAL NAVIGATION SOLUTION FOR HIGH SHOCK ARTILLERY ENVIRONMENTS

Possibilities of Navigation. *Made Easy*



aTALIN™

Ultra-rugged, reliable, best-value INS/GPS navigator with embedded GPS receiver

System Features

- Honeywell’s next generation ring laser gyro technology combined with our best in class accelerometers and protected by an enhanced internal isolation system for unparalleled performance in the most demanding military and commercial environments, including mounted directly on artillery platforms.
- Does not require external: isolation, GPS receiver, or GPS antenna.
- Single system plug “N” play across multiple platforms - auto-configuration adaptable.
- Align while stationary or on the move.
- Multiple accuracy configurations to meet different applications requirements.
- Over 15,000 systems from the TALIN family fielded on over 60 military and commercial platforms worldwide including combat vehicles, sensor platforms, towed and self-propelled weapons, survey applications, and mining equipment.

System Characteristics

Operating Ranges

- Attitude: Alignment and orientation in any direction, and on the move
- Angular rate: ± 200 deg/sec

Reliability

- MTBF: >50,000 hours (TALIN demonstrated)

Power Requirements

- 23–33 Vdc: <40 watts*

Thermal Operating Range

- No cooling required: -46°C to 71°C (-51°F to 160°F)

Navigation Sensors

- Standard/Internal: 3-axis inertial sensors and PPS MPE-S or SPS Polaris Link GPS Receiver Optional/External: VMS

Software

- Modular – partitioned for cost-effective system missionization.
- Field upgradeable

Weight

- <24 pounds (11kg)

Interfaces

- Standard: 10/100 Ethernet
- Optional: RS-422/RS-232

Form Factor - (excluding flanges & connectors)

- Approx. 6.8 H x 9.5 W x 12.0 L inches
- Approx. 17 H x 24 W x 30 L cm

Installation

- Can be hard mounted in any orientation (Shock tolerance maximized when connectors are forward or aft).

**Application and configuration dependent*



PERFORMANCE	ATALIN 2000	ATALIN 3000	ATALIN 4000	ATALIN 5000	ATALIN 6000
HORIZONTAL POS					
INU only	35m	25m	18m	12m	6m
INU/VMS	35m	25m	18m	12m	10m
INU/VMS/GPS PPS	<10m CEP	<10m CEP	<10m CEP	<10m CEP	<10m CEP
INU/VMS/GPS SPS	<60m CEP	<60m CEP	<60m CEP	<60m CEP	<60m CEP
HEADING/POINTING ACCURACY					
Specified Accuracy (RMS) at $\pm 65^\circ$ Latitude	<4.0 mils	<2.0 mils	<1.0 mils	<0.70 mils	<0.50 mils
sec(lat)	<1.69 mils	<0.85 mils	<0.42 mils	<0.3 mils	<0.21 mils
PITCH AND ROLL ACCURACY					
(RMS)	<1.00 mils	<1.00 mils	<0.50 mils	<0.35 mils	<0.25 mils
MAX ALIGNMENT TIME					
Maximum Static Alignment Time	<5.0 minutes	<5.0 minutes	<10.0 minutes	<15.0 minutes	<20.0 minutes
Maximum Dynamic Alignment Time	<12.0 minutes	<12.0 minutes	<12.0 minutes	<16.0 minutes	<16.0 minutes
Typical Alignment Time (28° Latitude)	<2.5 minutes	<3.0 minutes	<4.5 minutes	<4.5 minutes	<5.5 minutes

Values shown are per definitions in aTALIN system specifications

Honeywell Aerospace

1944 East Sky Harbor Circle
 Phoenix, AZ 85034
aerospace.honeywell.com/talin
TALIN@honeywell.com

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