



A3000™ DR + GPS DEVICE

KEY FEATURES

- Instantaneous and accurate positions in deep urban canyons and dense forests.
- Continuous position outputs in tunnels, parking garages and on lower bridge decks.
- Reliable positioning for tracking high-value assets and for mapping RF field strength.
- Improves QoS and customer satisfaction and retention to maximize service revenue.



WHEN GPS ALONE IS JUST NOT GOOD ENOUGH

The Trimble® A3000 combines dead reckoning (DR) with GPS to produce accurate and instantaneous positions, even under the most difficult conditions. For service providers tracking high-value or perishable cargo, A3000 dramatically improves quality of service (QoS) and customer satisfaction and retention, helping tracking service providers to maximize revenue opportunities.

Dead reckoning (DR) estimates position based on heading and distance traveled since the last known position. The more accurate the speed, time and heading inputs, the more accurate the dead reckoning. This is where GPS helps. GPS continuously calibrates the gyro and speed sensors to produce optimal dead reckoning.

The A3000 utilizes a Trimble Aardvark module along with an odometer pulse input and a forward reverse indicator to produce an accurate position and velocity outputs in the most hostile of GPS environments.

Applications

- In-Car Navigations
- Telematics Systems
- Fleet Management
- Activity-Based Insurance
- Roadside Assistance
- Road Pricing
- Remote Asset Monitoring
- Driver Monitoring

A3000 DR + GPS DEVICE

OVERVIEW

The A3000 DR + GPS device comprises the following functional elements:

- GPS receiver + DR Interface section
- Enclosure Power supply
- Options and accessories NiMH Battery

GPS RECEIVER

The A3000 supports an external GPS antenna. Typical, autonomous GPS performance characteristics under clear view, static conditions include:

Position accuracy	<2.0 m CEP 50%
Altitude	<3.0 m CEP 50%
Acquisition time	<2 s Hot
Tracking sensitivity	-159 dBm to -160 dBm

INTERFACE

The 24-pin connector on the A3000 supports a broad array of external interfaces. All external interface pins are protected against shorts to both ground and main power and ESD.

RS232 Serial Ports	2
Digital inputs	2

Power Supply

The A3000 supports connection to (1) main battery power, (2) ignition/switched power and (3) ground.

Voltage (main and switched)	9 V DC to 30 V DC
Power Consumption (@ 12 V DC):	
Operational	.50 mA
Peak	<150 mA

Enclosure

Molded from high-temperature, automotive-grade plastic with integral mounting tabs, the A3000 is designed for permanent installation in vehicles.

Protection	IP54
Dimensions	115 mm x 78 mm x 26 mm
Connectors:	
Power and interface	24-pin
GPS antenna	SMA

OPTIONS

The A3000 supports the following hardware load options:

- Rechargeable NIMH backup battery
- 1 GB microSD memory expansion for data logging
- Internal GPS Antenna

ACCESSORIES

- GPS antenna - Compact Bulkhead, active, magnetic patch
- Interface cable (DB9-Vehicle Power Adaptor)

Environment

Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +85 °C
Operating humidity	5% to 95% non condensing @ +40 °C
Operating vibration	.50g rms

Regulatory Approvals and Certifications

- FCC Part 15b
- Industry Canada
- CE-EC R&TTE Directive

Specifications subject to change without notice.

Trimble Navigation Limited is not responsible for the operation or failure of operation of GPS satellites or the availability of GPS satellite signals.

NORTH AMERICA

Trimble Navigation Limited
Corporate Headquarters
935 Stewart Drive
Sunnyvale, CA 94085
+1-800-787-4225 Phone
+1-408-481-8258 Phone
Email: AD_Sales@trimble.com

EUROPE

Trimble Navigation Europe
+46 70-544-10-20 Phone

KOREA

Trimble Export Ltd, Korea
+82-2-555-5361 Phone

CHINA

Trimble Navigation Ltd, China
+86-10-8857-7575 Phone