

# LAN-1000 Asset & Vehicle Locator Platform for Wireless IP Networks

**SYNOTrak™**  
GPS Tracking Systems



## SYNOTrak™ Features

- Active GPS tracking with 10Base-T Ethernet or serial output
- Reports location, speed, heading & 4 vehicle status signals such as emergency equipment status, engine status, or plow position. Remotely manage with telnet or browser.
- Two relay closures may be remotely actuated to control operation of the engine, door locks, or other components.
- Compact form factor in sturdy aluminum housing
- Support 16 GPS channels "all in view" tracking
- 12-24 volt DC, low power operation

## Applications

- WiFi GPS for AVL & Asset Management
- GPS Tracking Over WLAN 802.11 Networks
- GPS Tracking Over Wifi for Heavy Equipment
- GPS over WiFi for Municipal & Emergency Vehicles
- Wireless GPS Tracking for Ship Yards, Container Ports
- Wi Fi GPS Tracking in Warehouses, Yards, and/or Ports

## LAN-1000 GPS Asset & Vehicle Tracking System.

Transfer dynamic location and status information over your wide-area Internet Protocol private or public WiFi or mesh network. Using an Ethernet IP-capable digital radio system, the SYNOTrak LAN-1000 exchanges GPS, vehicle status and asset control information directly with your server applications. For the in-vehicle GPS software, SYNOTrak LAN-1000 provides NMEA-format GPS location information on its local serial port.



Visit us at [www.synometrix.com](http://www.synometrix.com) or email us at [info@synometrix.com](mailto:info@synometrix.com)

**SYNO**METRIX  
Integrated Technologies

**SYNOTrak™**  
GPS Systems

**SYNO**Tag™  
RFID Systems

**SYNO**BIOMETRIX™

For more information please contact: John Hannon  
SYNO METRIX | Asia Pacific  
Taipei, Taiwan

Email: [info@synometrix.com](mailto:info@synometrix.com)

IDD: +886 2 2758 1279

# LAN-1000 Asset & Vehicle Locator Platform for Wireless IP Networks



- Flexible, fast and cost effective
- Delivers GPS location and vehicle status
- Direct 10Base-T Ethernet or serial output
- Remotely manage with browser or Telnet
- Input signal detection and reporting
- Remotely controlled relay closures
- Small, light weight and durable design
- 12-24 volt DC, low power operation

Send your fleet management and CAD software continuous real-time status information using the SYNOTrak LAN vehicle locator platform. Featuring Global Positioning Satellite accuracy and IP network connectivity, this new telematics interface presents dramatic improvements in features, manageability and cost.

SYNOTrak LAN-1000 sends your fleet management server dynamic location and status information over your wide-area Internet Protocol network for precise monitoring and control of each mobile asset.



Using an Ethernet IP-capable digital radio system, the SYNOTrak LAN-1000 exchanges GPS, vehicle or asset status and control information directly with your server applications.

The SYNOTrak LAN-1000 transmits NMEA-format GPS location information via its local serial port. In addition to dynamic location, speed, and heading, the SYNOTrak LAN reports four vehicle or asset status signals, such as emergency equipment status, engine status, or plow position.



For vehicle management, two relay closures may be remotely actuated to control operation of the engine, door locks, or other components.

Manage the SYNOTrak LAN-1000 remotely using a web browser or Telnet to view fixed configuration information and real-time signal status. Change the server IP address, port number, message cadence, vehicle identification and relay closures using either the web browser or Telnet management interface.

Save money with simple, direct Ethernet connection to your IP-enabled radios. The SYNOTrak LAN-1000 uses your digital network so you pay no fees to a third-party communications provider.

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GPS Tracking Systems

## Specification

### GPS

- 12 Channel L1 C/A
- Position/Velocity:  
25m CEP/0.1 m/s without SA
- Time Accuracy:  
1 us synchronized to GPS time
- Max Speed: 515 meters/second
- Acceleration: 4g max
- Jerk: 20 meters/second<sup>3</sup> max
- Max Altitude: 18,000 meters
- Time to Fix:  
45/38/8/0.1 seconds for Cold/Warm/Hot  
Start/Reacquisition
- Update Rate: 1/second
- Receiver Sensitivity: -145 dBm
- Map Datum: WGS-84
- Protocol Messages:  
NMEA 0183 v2.2

### Antenna Connector

- SMA female connector
- Pre-amplifier power:  
3.2 volt DC, 100 mA
- For 1575 MHz L1 GPS  
antenna with SMA male

### IP Protocol Support

- TCP
- UDP
- ICMP
- Telnet
- HTTP

### Ethernet

- IEEE 802.3 10Base-T
- RJ-45 connector

### EIA232 Serial

- DB-9 female, DCE
- 3-wire EIA232 (Xmt, Rcv, Gnd)
- 9600 BPS, 8N1

### Input Signals

- Four contact inputs
- Closure to ground:  
open =1, closed =0
- Voltage to ground:  
<3v =0, 3v-24v =1

### Optional Latched Relay Outputs

- Two SPDT relays
- Contacts: 3 A resistive load

### Power

- 12-24 volts DC,  
1.2 watts.

### Dimensions

- 4.75 x 3.6 x 1.5 inches  
(120 x 92 x 37 mm).

### Weight

- 12 ounces  
(340 grams)

### Operating Temperature

- 14 F - 158 F  
(-10 C - 70 C)

### Humidity

- 5%-95% non-condensing



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