

# SX-900 GPS Tracking Hardware

**SYNOTrak™**  
GPS Tracking Systems



## SYNOTrak™ Features

- ▶ Siemens Tri-band MC55/56 GSM + GPRS
- ▶ SiRF III chipset for active GPS tracking
- ▶ Super compact form factor in plastic housing
- ▶ Support 16 GPS channels "all in view" tracking
- ▶ Rechargeable Li-ion battery pack with charger
- ▶ Internal GPS antenna
- ▶ SOS button feature and microphone
- ▶ Full geo-fencing option with motion detection
- ▶ Overspeed alert function for use with vehicles
- ▶ 4 digital inputs: 2 fixed 2 open
- ▶ SMS set up with GPRS functionality

**SYNOTrak™**  
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SYNOTrak™ SX-900 GPS Personal & Asset Tracker. Low-cost GPS tracker for Vehicle Location (AVL), GPS Personal Tracking and GPS Asset Tracking. Highly reliable Siemens Tri-band MC55/56 GSM + GPRS and SiRF III GPS Chipset. Small form factor and easy to integrate design makes the low-cost SYNOTrak™ SX-900 perfect for any GPS vehicle, people or asset tracking system application.

### Physical Characteristics

- ▶ Weight: 50 g
- ▶ Unit size: 64mm x 46mm x 17mm (1.8" \* 2.5" \* 0.65")
- ▶ Case: Plastic

### Electrical Characteristics

- ▶ Car charger: 12-24 V input 5V output
- ▶ Wall charger: 110-220 Volt 5V output
- ▶ Battery: Chargeable changeable 3.7V 800mAh Li-ion battery
- ▶ Standby: 48 hours

### Environmental Characteristics

- ▶ Operating Temperature: -20C to +55C (board temperature)
- ▶ Storage Temperature: -40C to +85C
- ▶ Humidity: 5%-95% non-condensing

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



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

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

IDD: +886 2 2758 1279

# SX-900 GPS Tracking Hardware

## GPS Specifications

- SiRF III GPS Chipset
- Frequency L1, 1575.42 MHz
- C/A code 1.023 MHz chip rate
- 12 channel accuracy
- Position 25 meters CEP without SA
- Velocity 0.1 meters/second, without SA
- Time 1 microsecond synchronized to GPS time
- DGPS Accuracy: 5 meters, typical    Velocity 0.05 meters/second, typical
- Acquisition Time
  - Snap Start <3 sec., average
  - Hot start <8 sec., average
  - Warm start <38 sec., average
  - Cold start <45 sec., average

## GSM Modem Specification

- Siemens Tri-band MC55/56 GSM + GPRS
- 58.3 x 32.2 x 3 mm [TBC]
- 2 Watts EGSM radio section running under 3,6 Volts
- 1 Watt GSM1800 radio section running under 3,6 Volts
- Digital section under 2.8 Volts
- 3V SIM interface
- Real-time clock with calendar
- Echo cancellation + noise reduction
- Full GSM or GSM/GPRS software stack
- Hardware GPRS class 2 capable
- Complete shielding
- SIM card

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



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

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

IDD: +886 2 2758 1279