

# G4N25GPS

Highly Miniaturized and Compact



GPS4NET



## Easy Installation & Maintenance:

- Remote diagnose & setup over GPRS
- 2 bi-colored LED status for GSM and GPS
- Very Small size – easy to handle and hide

## Flexible to configure (examples):

- Advanced acquisition by speed, azimuth, distance, timers, GSM status
- Flexible I/O configuration (State & Event counters and generators)
- Event data logger, including mileage counters
- Advanced personnel identification (2000 tags / 6 groups)
- Customizable transmission by distance, GPRS traffic, timers, GSM status
- Geofencing with event management for 2000 classified areas
- GSM security authentication by caller ID
- GPRS settings with fail-over APN and application server
- Private work mode scheduler supporting date and day of the week
- Power management

## Specific system / events reported information (examples):

- Navigation info, dilution of precision, azimuth, trip distance
- System status, input power, up-time, GSM status
- Over 23 types of alerts triggered by system and peripherals
- I/O status, configuration, assigned counters and determined values
- Personnel ID record – start, stop, distance, ID
- data record types dedicated for specific processed information

## Project specific options:

- External relay with associated controlled states
- Advanced personnel authentication with iButton tags
- Alert states triggered by subsystems
- Encrypted GSM communication based on XTEA algorithm

## Key Features:

- 2000 Geofencing areas
- 2000 Personnel ID tags
- GSM traffic accounting
- EGNOS capable GPS
- Compressed TCP/IP data
- Advanced command system
- Easy software integration

## Technical Parameters:

- Small size 50x35x15 mm
- Automotive grade processor
- Optimized RTOS for AVL
- Internal real-time clock (RTC)
- GSM-GPRS Quad-band
- 65 channels GPS receiver with EGNOS support enabled
- 57.000 data records stored
- 2 configurable pull-down I/O
- 3-level watchdog
- Temperature range -30~+85C
- Firmware upgrade over GPRS
- Humidity & corrosion protection
- +8...+40 Vdc input range

## Optional Features:

- Dallas 1-Wire ID tags
- Thief Alert / Motion sensor
- Encrypted GSM communication
- Immobilizer relay
- IP65 housing

## Easy maintenance & configuration:

G4N25GPS is a device designed to be assisted remotely over GPRS by RDT (Remote Diagnosis Tool), a software tool allowing our customers to easily administrate their units anytime and anywhere.

RDT is designed to control, configure, and upgrade the firmware so that controlling the firmware version of the whole fleet is an easy task. Thus upgrading a fleet of 100 units is a click away task, transparent for the user and supported entirely by GPS4NET infrastructure.

Users configure the system by connecting from RDT over Internet thus obtaining the information in no-time such as the last known configuration, system status and manufacturer parameters.

## Advanced Concepts:

G4N25GPS is a flexible smart tracking device fully adaptable to various AVL applications and specific projects where time-to-market is critical.

For 7 years GPS4NET has designed over 6 different GPS tracking devices. This experience is reflected in a robust hardware platform where stability and security were the main goals.

The versatility of the platform is concentrated in a preemptive Real Time Operating System (RTOS) specially developed and optimized for tracking application. This proprietary RTOS has proved to be optimal on older GPS model and today is present in any products developed by GPS4NET.

## Special Features :

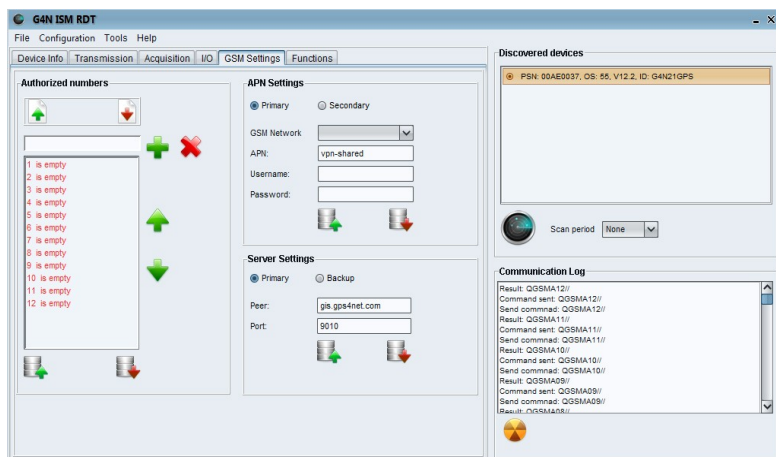
- Following the market demand for a flexible and yet powerful authentication and personnel tracking solution, GPS4NET have implemented an engine based on iButton (Dallas) ID key technology, capable of handling over 2000 ID tags.

The Personnel Authentication Engine is designed to provide 6 groups of tags supporting actions for acquisition, transmission, alarm triggering, ignition control, or event generators. By providing such features, the engine is suitable for various business application from rent-a-car, personnel work-time calculation to utility control and maintenance.

- The Alarm Engine provides 23 real time event based alarms. Each alarm source is independently configured and dependent of the GSM Network status, thus providing a flexible monitoring of critical system or peripherals events.

- The Geofencing engine supports the highest number of Point-of-Interest, capable of over 2000 rectangular areas.

The engine provides an advanced grouping feature thus allowing the classification of multiple POI by Input/Output state, and the possibility to define short length corridors.



## AVL platform integration:

Integration of new hardware in existing AVL software platforms is always raising time-to-market and financial problems. For this reasons GPS4NET have created G4NReceiver, a middle-ware enterprise server application handling the TCP/IP communication with GPS units and SQL Database connection management.

G4NReceiver is UNIX compatible and designed to manage thousands of parallel open sockets. The communication with Database is managed internally from an XML descriptive file where complex queries are be configurable in a few minutes.

To complete the job, G4NReceiver is providing a full set of functions for real-time alarm processing, SMS processing, OTA auto-diagnose and a Web API for interfacing RDT. The combination between RDT and G4NReceiver is a state-of-the-art solution providing in the same time: GPRS communication management, wireless diagnose and offline setup of devices.