

## M33

### 3G/GSM/GNSS vehicle tracker



- **Very compact size**
- **Easy mounting and configuring**
- **Integrated 3G/GSM module**
- **High quality GNSS module**
- **Integrated scenarios:**
  - **Overspeeding**
  - **Authorized driving**
  - **Immobiliser**
- **Online/Offline tracking**
- **High capacity internal memory (16MB)**
- **Low energy consumption**
- **Sleep/Deep sleep function**
- **Virtual odometer**
- **Remote Configuration**
- **FOTA**
- **3 input/output hardware configurations fit any requirements (see below for further information)**

M33 is small size and easily installable terminal. 3 input/output hardware configurations let you choose the one the best for your applications. It makes terminal's installation easier and you won't have unwanted wires in your car that are not used;

3G/GSM module makes this device usable worldwide, as there are countries which have only 3G network. User can choose if device will work only in GSM network, or it will prefer 3G network and switch to GSM only then 3G is absent.

3G/GSM module allows to upload data to server more faster in 3G network

Integrated GNSS module gives high coordinates accuracy. As it works in two different positioning systems (GPS and GLONAS), module uses more satellites to determine accurate and reliable coordinate. This module also recovers GPS fix very quickly after it is lost, then the car enter and exiting tunnel or underground parking.

M33 can be configured via SMS or GPRS, so you won't have to go to your car and connect to device directly if configuration changes are needed. All you need to do is simply send your wanted configuration via SMS or GPRS, it can be done even when the car is moving. That way device can always work as you want. M33 also supports firmware update over GPRS, so you can easily update the newest firmware version and you won't have to bother to go to your car for it.



## Technical details

# M33 3G/GSM/GNSS vehicle tracker

### • Supported frequencies (Mhz)

- GSM/GPRS/EDGE:  
800, 900, 1800, 1900
- UMTS/HSPA:  
800/850, 900, AWS1700, 1900, 2100

### • GNSS

- NMEA, GGA, GGL, GSA, GSV, RMC, VTG protocol compatible
- 162 dBm Tracking Sensitivity
- 32 independent tracking/search channels

### • Interface

- Three different input/output hardware configurations:
  - First option
    - POWER (10...30V DC)
    - GND
    - DIN1 (Reserved for Ignition Status Monitoring)
    - DOUT1
    - DOUT2
    - DIN2/AIN1 (selectable by configuration)
  - Second option
    - POWER (10...30V DC)
    - GND
    - DIN1 (Reserved for Ignition Status Monitoring)
    - DOUT1
    - DOUT2
    - 1-Wire® interface
  - Third option
    - POWER (10...30V DC)
    - GND
    - DIN1 (Reserved for Ignition Status Monitoring)
    - DOUT1
    - DIN2/AIN1 (selectable by configuration)
    - 1-Wire® interface
- 3 Status LEDs
- USB Port
- Configuration and firmware upload (FOTA and via USB cable)
- External GSM antenna (SMA connector) for higher sensitivity
- External GNSS antenna (MCX connector) for higher sensitivity

### • Features

- GNSS and I/O data acquisition
- Real Time Vehicle Tracking
- Smart data acquisition (based on time, distance, angle, ignition and events)
- Sending acquired data via 3G or GPRS (TCP/IP and UDP/IP protocols)
- Smart algorithm of 3G or GPRS connections (GPRS traffic saving)
- Operating in roaming networks (preferred GSM providers list)
- Events on I/O detection and sending via 3G, GPRS or SMS.
- Scheduled 24 coordinates SMS sending
- 5 Geofence zones (rectangular or circle)
- Deep Sleep mode (less power consumption)
- FOTA (firmware updating via GPRS)
- Accelerometer
- Small and easy to mount case
- 3 operational modes (Home, Roaming, Unknown) based on GSM operator
- Operation modes:
  - Over Speeding Detection
  - Harsh driving detection (harsh braking, harsh acceleration and harsh cornering)
  - Driver identification (using 1-Wire® iButton, depends on output pins selection)

### • Additional features:

- M33 has large internal Flash memory (16MB):
  - Up to 100 350 records or data from up to 120 days using standard configuration (min. period = 10min, min. distance = 1km and all I/O elements enabled) can be stored on internal flash memory.
  - There is a possibility to disable data sending while in Roaming and to store data on internal flash memory. Stored data will be sent to server when M33 will register to home operator
- M33 can be used without a GSM connection:
  - Additional function – Offline data logging – allows to download acquired data from M33 to PC via USB and later to upload it to server. This functionality helps to avoid high GPRS bills caused by expensive roaming operators and keep acquired data save until it is downloaded to PC. M33 can be used without a GSM connection

