The owa11A platform is an optimized, fully featured vehicle, asset tracking and telemetry unit. Its design has been the result of the experience of Owasys with over 100,000 units on field during last 12 years. The owa11A is an ideal product for a wide range of applications as Transport & Logistics, Security & Surveillance, Trailer Tracking, Insurance Rental, Caravans, etc....

Full-featured asset and vehicle tracking platform

- Fully configurable functionality.
- OTA update capability for configuration and firmware.
- Quad band GSM/GPRS (integrated antennas).
- Optional HSPA+ module.
- Cell ID information provided.
- Nominal Range from 6 to 30 VDC
  - High Capacity 1800 mAh integrated back-up battery.
- Internal 3-axis accelerometer.
- Owa11A 2 I/Os each configurable as:
  - Digital Inputs
  - Digital Outputs
  - Analog Inputs
- Owa11A-T
  - 1-wire interface for sensors (temp, humidity...)
  - Power output 4.4V
- Waterproof housing IP67.
- CE certified/ROHS.
- Fully designed and manufactured in EU.

Improved M2M communication technology

MQTT based: lightweight publish/subscribe messaging protocol well suited to work in the mobile environment.

MQTT features:
- fast response and throughput.
- low battery and bandwidth usage

MQTT is a perfect fit for use cases where:
- connectivity is intermittent.
- bandwidth is at a premium.
- an enterprise application needs to interact with one or more devices.
- devices need to send data fast and reliably without requiring code retry logic.

MQTT allows the deployment of devices to all environments, private and NAT-ed networks.
TECHNICAL SPECIFICATIONS

• Interfaces
  – 1 bi-colour Status LED
  – Movement Sensor

owa11A
  – Two I/Os each configurable as:
    a. Digital Input (Maximum input voltage 50V)
       LOW = 0 - 2.5V, HIGH = 5 - 50V
    b. Digital Output open collector 100mA *
    c. Analog Input, 2 Ranges 0-5V or 0-30V
       *Factory option in IO1 for High side output 1A.

owa11A-T
  – 1-wire interface for sensors (temp, humidity...)
  – Power output 4.4V
  *NOTE: Optional

• Power Supply
  – Nominal Range: 6 Va 30 V.
  – Typical current consumption@12v:

<table>
<thead>
<tr>
<th>Mode</th>
<th>Current Consumption (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off: Acc + Inputs</td>
<td>670 uA</td>
</tr>
<tr>
<td>STANDBY: GSM + Acc + Inputs</td>
<td>3.6 mA</td>
</tr>
<tr>
<td>RUN: GPRS + GPS + Acc + I/O</td>
<td>42 mA</td>
</tr>
</tbody>
</table>

Wakeup reasons
  Off: Accelerometer, power fail, digital inputs, RTC
  STANDBY: Accelerometer, power fail, digital inputs, GSM (call or SMS), RTC

• Battery
  – Back Up Battery Li-Ion 3.7V 1800 mAh.

• Temperature

<table>
<thead>
<tr>
<th>Condition</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Temperature</td>
<td>-20°C to +60°C</td>
</tr>
<tr>
<td>Battery Charge</td>
<td>0°C to +45°C</td>
</tr>
<tr>
<td>Storage Temperature** (1 month)</td>
<td>-5°C to +35°C</td>
</tr>
<tr>
<td>Storage Temperature** (3 months)</td>
<td>0°C to +35°C</td>
</tr>
</tbody>
</table>

  ** NOTE: Storage Temperature limited because of Li-Ion battery.
  After 3 months, battery should be charged to 40-50% of capacity and stored at ambient temperature 25±5°C, 65±20% RH for 12 months.
  After 12 months a complete charge/discharge cycle should be carried out.

• GSM/GPRS (Internal antenna)
  – GSM850 + EGSM900 + GSM1800 + GSM1900
  – Class 4 (2W) GSM850/EGSM900
  – Class 1 (1W) GSM1800/GSM1900
  – GPRS Class B, Class 10 (4+2)
  – SMS (MT/MO)
  – Supports multiplexed communication, allowing GSM and SMS events during GPRS sessions
  – UMTS Class 3 ( 250 mw) for WCDMA FDD BandII(1900)*
  – UMTS Class 3 ( 250 mw) for WCDMA FDD BandV(850)*
  *NOTE: Optional HSPA+ Module

• GPS (Internal antenna)
  – 56-channels
  – GLONASS (Optional)
  – SBAS: WAAS, EGNOS, MSAS
  – Precision: 2.5 meters CEP
  – Signal Acquisition:
    Cold Start: 29 sec
    Aided Start: 5 sec
    Readquisition: 1 sec

• Mechanics
  – Plastic
  – Dimensions: 101x61x30 mm
  – Weight: 190 gr
  – Power Supply Cable+ I/O*
  – Fixation with adhesive

*NOTE: Optional HSPA+ Module