

owa2X family

# owa21A-TRACK

## TRACK AND TRACE APPLICATIONS

YOUR FLEET VEHICLES AND ASSETS ALWAYS TRACKED AND TRACED.

LOW POWER MODE SOLUTIONS AND BATTERY TO ALLOW LIVE TRACKING DURING DAYS. SUITABLE FOR ANTI-THEFT APPLICATIONS.

ALL THE EXPERIENCE OF THE owa2X PRODUCTS FOCUSED IN A SPECIALIZED PRODUCT FOR TRACKING APPLICATIONS.

- GPRS Class B, Class 10 (4+2), GSM Quad Band, 850MHz, 900MHz, 1800MHz and 1900MHz.
- GPS integrated. WAAS and EGNOS support.
- TCP/IP stack for transparent Internet Connection.
- Movement sensor.
- Tamper-proof SIM card.
- Dedicated internal battery for Real Time Clock and GPS.
- Based on owa2X SW architecture
- Compact Size.
- Application software upgradeable over the air.
- Designed for Ultra Low Power Applications

*Your reference partner for wireless communication nodes!*



55 mm. (L)

27 mm. (H)

106 mm. (W)

**owasys**

Advanced Wireless Devices

# TECHNICAL SPECIFICATIONS

## GENERAL SPECIFICATIONS

- Power Supply:
  - Nominal Voltage Range: 6 to 36 Vdc.
- Interfaces:
  - Power Supply.
  - 4 Digital Inputs, 3 Digital Outputs, 1 Power Output
  - Power ON/OFF input signal.
  - Audio IN/OUT.
  - RS-232 Serial Port.
  - Secondary UART.
  - GSM and GPS antenna connectors.
  - 1 Odometer<sup>(1)</sup> input.

(1) Multiplexed with one of the digital inputs.

- Approvals
  - CE Marking.
  - e-marking.
- Power Consumption-Typical Average @ 12V

Zero Power Mode	4 $\mu$ A
Low power mode	2 mA
Sleep <sup>(2)</sup>	6 mA
Run <sup>(3)</sup>	180 mA

(2) GSM camping and CPU i sleep.

(3) GPS Running and GSM transmitting at maximum power.

- External LEDs for information and internal Movement Sensor.
- RTC and GPS with dedicated battery, 1 month autonomy at 25°C.
- Temperature Ranges:

Operating (Fully GSM compliant)	-30°C to +75°C
Operatiq with GSM OFF	-40°C to +85°C
Storage	-40°C to +85°C
With internal battery back-up accessory. <sup>(4)</sup>	-20°C to +60°C

(4) Allowing battery discharge.

## FIRMWARE SPECIFICATIONS

- 32 bits RISC ARM7 core up to 60 MIPS (Dhystone 2.1) at 70 Mhz.
- Linux OS (Kernel v.2.4.18).
- TCP/IP Stack
- Memory:
  - 8 Mbyte FLASH
  - 16 Mbyte RAM
- Application Programming Interface for:
  - Owa21A control.
  - Power management.
  - GSM/GPRS.
  - Internet connection.
  - Controlling all the interfaces: I/Os.
  - GPS.
  - Movement Sensor
- Multiplexed communication supported with GSM/GPRS modem allowing GSM events and SMS during GPRS connection.

## GSM/GPRS SPECIFICATIONS

- GSM850 + EGSM900 + DCS1800 + PCS1900.
- Power Output Class 4 (2W) for GSM850/EGSM900.
- Power Output Class 1 (1W) for DCS1800/PCS1900.
- GPRS Class B, Class 10 (4+2).
- Audio and CSD Data calls.
- SMS (MT/MO).

## GPS SPECIFICATIONS

- Receiver: L1 frequency, 16 Channel.
- Update Rate: > / = 4 Hz.
- Accuracy: 2.5 m CEP (Circular Error Probability).
- Signal Acquisition:
  - Cold Start: 34 sec.
  - Warm Start: 33 sec.
  - Hot Start: < 3.5 sec.
  - Aided Start: 5 sec.
- Signal Reacquisition: < 1 sec.
- Power supply for active antenna.: + 3 Volt @ 30mA current

## MECHANICAL SPECIFICATIONS

- Dimension (mm): 106 (W) x 27 (H) x 55 (L).
- Weight < 170gr (plain device with no accessories).
- Material: Aluminium anodized.
- Connectors:
  - GSM: FAKRA D Plug.
  - GPS: FAKRA C Plug
  - AMP Micro Mate-N lock 14 pins.
  - RS-232 DB-9 (Female).
  - Molex Mini-fit 6 pins.
  - Tamper-proof SIM card holder.

## UNIVERSAL DEVELOPMENT KIT

- A development kit is available, including:
- GSM/GPRS, GPS and Bluetooth antennas.
  - Developer's board.
  - Power supply cables.
  - Cables for interfaces.
  - CD with: Cross compiler, API's library, manuals, and application notes.
  - Wall-plug to supply the owa21X and Development Board.

## RELATED PRODUCTS AND ACCESSORIES

- Internal Battery back-up accessory 1000mAh
- owa21I-Telemetry.
- owa2X products.