

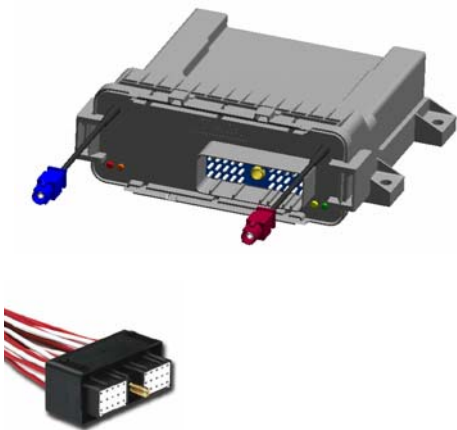
owa2X Family

# owa23X-Rugged

IP67: FULL PROTECTION  
AGAINST DUST AND WATER\*

ALL THE EXPERIENCE OF THE owa2X FAMILY FOCUSED IN A SPECIALIZED PRODUCT FOR RUGGED CONDITION APPLICATIONS. ENJOY THE NEW IP67 ENVIRONMENTAL PROTECTION. THIS UNIT IS, AMONG OTHER POSSIBLE APPLICATIONS, AIMED AT TRACKING HEAVY DUTY EQUIPMENT.

- GPRS Class B, Class 10 (4+2), GSM Quad Band, **850MHz**, 900MHz, 1800MHz and **1900MHz**.
- 16 channel GPS integrated. WAAS and EGNOS support.
- 8 configurable digital inputs/outputs (I/O-0 to I/O-7). I/O-6 can be used as an odometer input.
- 2 analog inputs.
- ON/OFF pin.
- Audio interface for Speaker and Microphone.
- TCP/IP stack for transparent Internet Connection.
- ARM 7 core up to 60 MIPS, Linux OS and 8 Mbyte FLASH Memory.
- CAN, RS232 and RS485 buses.
- Movement sensor.
- Tamper-proof SIM card (inside enclosure).
- Dedicated internal battery for Real Time Clock and GPS.
- Based on owa2X SW architecture
- Compact Size.
- Software upgradeable over the air by customer application.
- Optional Ethernet 10baseT



\*Immersion to 1m for 30 mins.

## NOW AVAILABLE!

- Overall dimensions: 153.2 x 134.6 x 54mm, excluding cables.
- 30 pin connector and cable included.

**owasys**  
Advanced Wireless Devices

## TECHNICAL SPECIFICATIONS

### GENERAL SPECIFICATIONS

- **Power Supply:**

- Nominal Voltage Range: 6 to 40 Vdc.

- **Interfaces:**

- 8 configurable digital input/outputs (I/O-0 to I/O-7).
- 40Vmax inputs, 100mAmax outputs.
- I/O-6 can be used as odometer input.
- ON/OFF pin.
- CAN bus.
- RS232 bus (Tx, Rx, CTS, RTS).
- RS485 bus.
- 2 analog inputs (0-5V).
- Audio: Speaker and Microphone (depending on model).
- Ethernet 10baseT (depending on model).
- Vout 4.5V power output (100mA max).
- GSM and GPS antenna connectors.
- 4 LEDs for status indication.
- Internal movement sensor.
- RTC and GPS dedicated battery, 1 month autonomy at 25°C.

- **Approvals**

- CE Marking.
- e-marking.

- **Power Consumption-Typical Average @12V**

Zero Power Mode	4 uA
Low Power Mode	2 mA
Sleep <sup>[2]</sup>	6 mA
Run <sup>[3]</sup>	180 mA

<sup>[2]</sup> GSM on network and CPU in sleep.

<sup>[3]</sup> GPS Running and GSM transmitting at maximum power.

- **Temperature:**

Operating (Fully GSM compliant)	-30°C to +75°C
Operating 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

<sup>[4]</sup> Allowing battery discharge

### FIRMWARE SPECIFICATIONS

- 32 bits RISC ARM7 core up to 60 MIPS (Dhrystone 2.1) at 70 Mhz.
- Linux OS (Kernel v.2.4.18).
- Memory:
  - 8 Mbyte FLASH
  - 16 Mbyte RAM
- Application Programming Interface for:
  - owa23 control.
  - Power management.
  - GSM/GPRS.
  - Internet connection.
  - Controlling all the interfaces: I/Os, CAN.
  - GPS.

### 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).
- Multiplexed communication supported with GSM/GPRS modem allowing GSM events and SMS during GPRS connection.

### 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: 153.2 (W) x 54 (H) x 134.6 (L).
- Weight: 400g
- Material: Glass reinforced plastic.
- Environmental protection to IP67 standard.
- Connectors:
  - 2 Fakra (GSM & GPS).
  - 30 pin power and signal interface.

### UNIVERSAL DEVELOPMENT KIT

- Developer's board owa23X.
- Power supply cables.
- Cables for interfaces.
- CD with: Cross compiler, API's library, manuals, and applications notes.
- Wall-plug to supply the owa21X and Development Board.
- Power & Signal cable 30 way.
- 1/4" nut driver
- Cinch box opening tool

### RELATED PRODUCTS

- owa23A
- owa23A/b

### FUTURE DEVELOPMENTS

- owa23A-ETH
- CAN Available
- Optional Opto-isolation on I/Os.
- Optional internal antennas.
- Optional internal Zigbee compatible radio.