owa31l

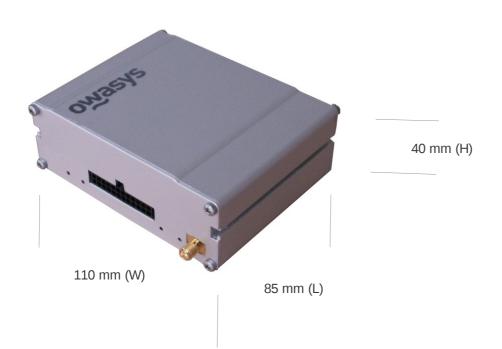## A NEW POWERFUL OPEN M2M PLATFORM SUITABLE
FOR THE WIRELESS APPLICATION YOU NEED TO DEVELOP

A NEW GENERATION OF OPEN, FLEXIBLE AND POWERFUL WIRELESS EMBEDDED COMPUTERS, PROVIDING FULLY WIRELESS CAPABILITIES FOR REMOTE MANAGEMENT AND MONITORING.

A UNIQUE PLATFORM TO DEVELOP TELEMETRY AND TELEMATIC APPLICATIONS WITH A WIDE RANGE OF CONNECTIVITY.

owa31l PLATFORM INTEGRATES:
— GSM/GPRS (optional Double SIM)
— EMBEDDED IP FUNCTIONALITY
— WIDE VARIETY OF INTERFACES
  ▪ ANALOG AND DIGITAL I/O
  ▪ 3 RS232 & 1 RS485
  ▪ MICROSD
  ▪ OPTIONAL: 2 USB, ETHERNET, WIFI, TETRA, EDGE AND HSDPA / UMTS

40 mm (H)

110 mm (W)

85 mm (L)

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TECHNICAL SPECIFICATIONS

• Interfaces
— 10 configurable digital input/outputs.
— 40V max inputs (logic low <3V, high >5V).
— All inputs function as wake signals for low power modes.
— All inputs can be used as counters (odometer). 32bit, 3kHz max.
— 8 open collector outputs (100mA each).
— 2 high-side switches to Vin for output (1A each).
— Short circuit protection for all outputs.
— 4 analog inputs.
—10 bit resolution. 1% accuracy.
—Share 4 of the digital I/O pins.
—0-5.12V (5mV per bit) or 0-30.72V (30mV per bit) configurable by SW.
—Internal ADCs for Vin, Vbat, Vbackup, temperature.
— Removable cover for SIM, main battery and microSD.
— microSD card holder.
— 3 external RS232 ports. 6 pins configurable by SW as follows:
—3 x (TX / RX) or
—1 x (TX / RX) & 1 x (TX / RX / CTS / RTS) or
—1 x (TX / RX / CTS / RTS / DCD / DTR).
— One RS485 port.
— Vout 4.5 V power output (100 mA max).
— GSM / GPRS with SMA antenna connector.
— 4 LEDs for status indication (6 with Ethernet).
— Programmable 3 axis accelerometer or movement switch.

• Power Supply
— Nominal range of 7 V to 48 V.
— Typical consumption at 12V:

Off	0.3 mA
Standby	15 mA
RUN	50 mA
RUN + GSM voice call	90 mA

• Batteries
For when there is no power supply available.
— Standard backup battery for RTC. Duration 10 years.
— Optional rechargeable Li-Ion 3.7V 1800mAh.
Inserted via rear battery cover.

• Temperature

Storage	-40 ºC to +85 ºC
Operating with GSM off	-40 ºC to +85 ºC
Operating with GSM on	-30 ºC to +80 ºC
Operating from Li-Ion Battery	-20 ºC to +60 ºC
Li-Ion Battery recharge	0 ºC to +45 ºC

• CPU
— ARM9 at 400MHz clock speed.
— Linux OS 2.6.32.
— FLASH   32Mbyte.
— RAM   32Mbyte.
— microSD card holder for additional storage.

• GSM/GPRS
— GSM850 + EGSM900 + DCS1800 + PCS1900.
— Class 4 (2W) for GSM850/EGSM900.
— Class 1 (1W) for DCS1800/PCS1900.
— GPRS Class B, Class 12 (4+3)
— Audio and CSD Data calls.
— SMS (MT/MO).
— Multiplexed communication supported allowing GSM events and SMS during GPRS connection.

• Mechanical
— Anodized aluminium.
— Environmental protection to IP30 standard.
(protection against objects larger than 2.5mm and no protection against water).
— Dimensions: 110 x 85 x 40 mm, excluding connectors.
— Weight: 270g
— Connectors:
GSM, 24 pin Machine, RJ11 (audio), microSD slot and SIM slot (optional dual SIM slot) .
— Plastic mounting bracket with screw mounting holes.
Can also be used for DIN rail mounting.
Mounting bracket includes holes to support an optional expansion board.

• Conformity
— 1999/05/EC R8 TTE Directive
— 2004/104/EC Directive
— 2002/95/EC ROHS Directive

• Development Kit
Includes: Developer's board owa3X, Power supply cables, Cables for interfaces, Antennas, CD with: Cross compiler, API's library, manuals, and applications notes.

• Options
— ETHERNET	— USB
— CAN	— TETRA
— ACCELEROMETER	— WIFI
— EDGE	— HSDPA