owa3X platform

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 TELEMAC APPLICATIONS WITH OPTIONAL IP67 ENCLOSURE FOR RUGGED CONDITIONS, INTERNAL ANTENNAS AND A WIDE RANGE OF CONNECTIVITY.

owa3X PLATFORM INTEGRATES:
- GSM/GPRS (optional Double SIM)
- GPS
- EMBEDDED IP FUNCTIONALITY
- WIDE VARIETY OF INTERFACES
  - ANALOG AND DIGITAL I/O
  - 3 RS232 & 1 RS485
  - 2 CAN, 2 K-Line & iButton
  - AUDIO
  - ETHERNET, MICROSD, etc.
- USB

OPTIONAL COMMUNICATION TECHNOLOGIES:
- BLUETOOTH™ (Bluetooth 2.1, BLE)
- WiFi
- TETRA
- HSPA / UMTS
- SATELLITE
- I/Os Expansion Board

Wireless Embedded Computer

ARM

- ARM9 CPU 32bit
  - 400 MIPS
  - 32MB FLASH
  - 32MB / 64MB RAM
  - Industry Standard Architecture

LINUX and C
- Open Platform
- Complex Applications
- Flexible

PSU
- Robust for Automotive
- Very Low Power
**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 toVin 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 (only in owa3x-IP30 models)
    - 0-5.12V (5mV per bit) or 0-30.72V (30mV per bit) configurable by SW.
  - Internal ADCs for Vin, Vbat, Vbackup, temperature.
  - 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.
  - Ethernet 10/100BaseT.*
  - Vout 4.5 V power output (100 mA max).
  - GSM / GPRS with FAKRA or SMA antenna connector.
  - Gym with FAKRA antenna connector *.
  - 4 LEDs for status indication [6 with Ethernet].
  - Audio for external microphone and speaker *.
  - CAN bus supporting full speed 1MBPS CAN 2.0B *.
  - K-line bus *.
  - Integrated Sensors
    - Programmable 3 axis accelerometer and or 3 axis gyroscope*
      Availability of features marked with (*) depend on model.
      See BOK 100 6007 for more information.
  - 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
      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 +55 ºC
    - Li-Ion Battery recharge 0 ºC to +45 ºC
  - CPU
    - ARM at 400MHz clock speed.
    - Linux OS 2.6.36.
    - FLASH 32Mbyte.
    - RAM 32Mbyte / 64Mbyte.
    - MicroSD card holder for additional storage.
  - GSM/GPRS
    - GSM900 + EGSM900 + GSM1800 + GSM1900.
    - Class 4 (2W) for GSM850/EGSM900.
    - Class 1 (1W) for GSM1800/GSM1900.
    - GPRS Class B, Class 10 [4&2]
    - Audio and CSD Data calls.
    - SMS (MT/MO)
    - Multiplexed communication supported allowing GSM events and SMS during GPRS connection.
  - GNSS
    - Receiver: GPS L1 frequency, C/A code
    - 56-channel* continuous tracking receiver
    - GALILEO L1 open service and GLONASS ready*
    - SBS: WAAS, EGNOS, MSAS, GAGAN
    - Update Rate: 4Hz
    - Accuracy: 2.5 meters CEP
    - Signal Acquisition
      - Cold Start: 29 sec*  
      - Warm Start: 28 sec*  
      - Hot Start: < 1 sec
    - Signal Reacquisition: < 1 sec
    - Active Antenna Power Supply: +3.0V@ 30mA
    - Features availability depending on version
  - Mechanical
    - Aluminium Enclosure
      - 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 & GPS, 24 pin Machine, RJ11 (audio), microSD slot and SIM slot (optional dual SIM slot) Optional RJ45 (ETH) and Optional USB.
      - 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.
  - Rugged Enclosure
    - Environmental protection to IP67 standard.
      - [full protection against dust and water]
    - Dimensions: 179,5 x 57,5 x 146,5 mm, excluding connectors.
    - Weight: 400g
    - Material: Glass reinforced plastic.
    - Connectors:
      - GSM & GPS, 42 pin Machine.
      - Optional ETH connector
    - Conformity
      - 1999/05/EC R & 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, Web Access to: Cross Compiler, API’s, Libraries, Manuals and Application Notes.
    - Options
      - DYOroscope – TETRA – Additional I/Os
      - BLUETOOTH – WIFI
      - SATELLITE – HSPA

* Features availability depending on version