

# owa344A



## IoT Embedded Linux Platform

### owa344A Core:

- Yocto Project File System
- ARM Cortex A7 32 bit 792MHz
- 512MB DDR3
- 512MB NAND Flash
- Optional 8GB EMMC

### Key Features:

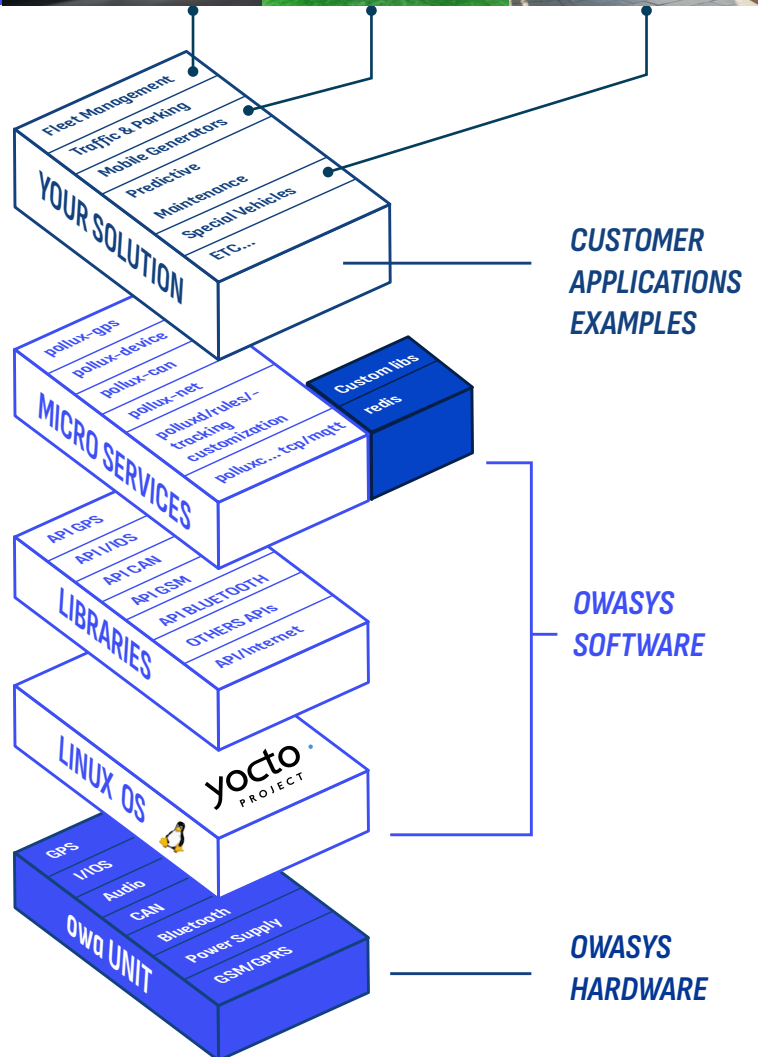
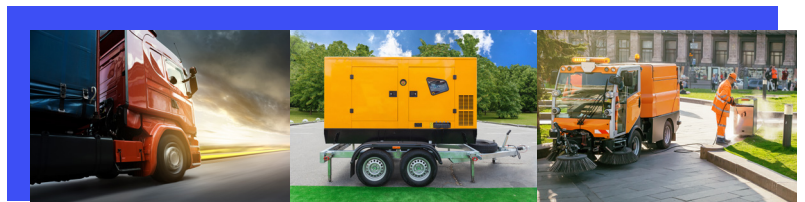
- CAN (up to 2 interfaces)
- Kline
- Ethernet 10/100Mbps - RJ45
- USB 2.0
- 2 RS232 interface
- Programable 3 Axis Accelerometer
- 6 digital output open drain 200mA
- 2 digital output high side 1A
- 9 digital input 0 to 50V
- 4 analog input, 0V to 30V
- 5V voltage output
- Nano SIM/MFF2
- Low Power Modes
- TPM 2.0 (Optional)
- Secure boot
- IP40 Enclosure

### Wireless Interfaces:

- GNSS (GPS+GLONASS+GALILEO+BDS+QZSS)
- CELLULAR COMMUNICATIONS
- LTE Cat 1 bis with 2G fallback
- EXTERNAL ANTENNAS (FAKRA)
- OPTIONAL INTERNAL ANTENNAS

### Mechanics

- IP40
- 114mm x 85mm x 32mm (excluding wings)



[www.owasys.com](http://www.owasys.com)

Time to wireless!!

BOK 000 3011-D\_owa344A Datasheet

**owasys**<sup>®</sup>  
HMS GROUP MEMBER

**CPU**

- ARM Cortex A7 at 792MHz clock speed.
- Yocto Project File System\*
- DDR3 512MB RAM
- NAND FLASH 512MB
- Optional EMMC 8GB for additional storage
- Optional TPM 2.0

\* For more information about OS and kernel, visit our Developers' zone or contact your Owasys Account Manager.

**GNSS**

- Receiver: GPS/GLONASS/GALILEO/QZSS/BDS
- 33-channel continuous tracking receiver
- SBAS: WAAS, EGNOS, MSAS, GAGAN
- Update Rate: up to 10Hz.
- Accuracy: <2.5 meters CEP.
- Signal Acquisition:
  - Cold Start: 32 s.
  - Hot Start: < 2 s.
- Sensitivity:
  - -167dbm tracking,
  - -149dBm adquisition
- Active Antenna Power Supply: +3.3V

**LTE Cat 1 bis with 2G fallback**

- LTE-FDD bands: B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B18/B19/B20/B25/B26/B28/B66
- LTE-TDD bands: B34/B38/B39/B40/B41
- GSM/GPRS/EDGE: Quad band
- DL 10M bps, UL 5 Mbps
- GPRS multi-slot Class 12.
- LTE-TDD: Max 130 Mbps (DL), Max 30 Mbps (UL)

**Interfaces**

- Up to 2 CAN bus supporting full speed 1Mbps CAN 2.0B
- K-line bus
- Ethernet 10/100Base-TX
- Maxim 1-Wire
- USB Host 2.0
- 2 external RS232 ports. 6 pins:
  - 1 x (TX/RX/CTS/RTS) Console
  - 1 x (TX/RX)
- Integrated sensors
  - Programmable 3 axis sensor, accelerometer
- Configurable digital input/outputs:
  - 9 INPUTS:
    - 50V max inputs (logic low <1.5V, high >3V)
    - 7 inputs function as wake signals for low power modes
    - All inputs can be used as counters (odometer). 32bit, 3Khz max.
    - 6 open collector outputs (200mA each)
    - 2 high-side switches to Vin for output (1A each)
    - Short-circuit protection for all outputs
  - 4 analog inputs:
    - 12 bit resolution, 1% accuracy
    - Multiplexed with digital I/O pins
    - 0-30V range
  - Vout 5V power output (500mA max)
  - FAKRA antenna connectors or internal antennas
  - 4 LEDs for status indication

\* Availability of features depends on models

**Power Supply:**

- Nominal range of 9V to 48V.
- Typical consumption at 24V:

OFF	320 uA
Standby	9,53 mA
RUN	35,50 mA
RUN + GSM + GPS	59,30 mA

**Batteries**

- Back-up 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**

Safety Purposes Operating Temperature Range without Li-ion Battery	-40 °C to +73 °C*
Safety Purposes Operating Temperature Range with Li-ion Battery	-40 °C to +53 °C (from external power supply) -20 °C to +53 °C (battery can power the unit)** 0 °C to +45 °C (battery will be charged if external power available)

\* Industrial temperature range components -40 °C to 85 °C

\*\* (-40 °C to -20 °C internally limited with battery protection during discharge)

**Enclosure**

- Environmental protection to IP40 standard.
- Dimension: L=140 x W=85 x H=32 mm. (With the fixing wings)
- Weight: 170 gr.
- Material: PC+ABS.
- System connectors: Molex Microfit 24 way 43045-2400
- NanoSIM
- Ethernet RJ45

**Development Kit (POP 000 3100#UDK)**

Includes: Developer's board owa344, power supply cables, cables for interfaces, antennas, web access to developers area: cross compiler, API, libraries, manuals and application notes.

**Options**

See DESI-BOK 000 3012 for product variants and options.

