

owa344A



Make sure each unit is working at the highest level.
Be the co-pilot of all your vehicles.

IoT Embedded Linux Platform

owa344A Core:

- Linux Kernel 6.6.15
- Yocto Kirkstone 4.0 File System
- ARM Cortex A7 32 bit 792MHz
- 512MB DDR3
- 512MB NAND Flash
- Optional 8GB EMMC

Key Features:

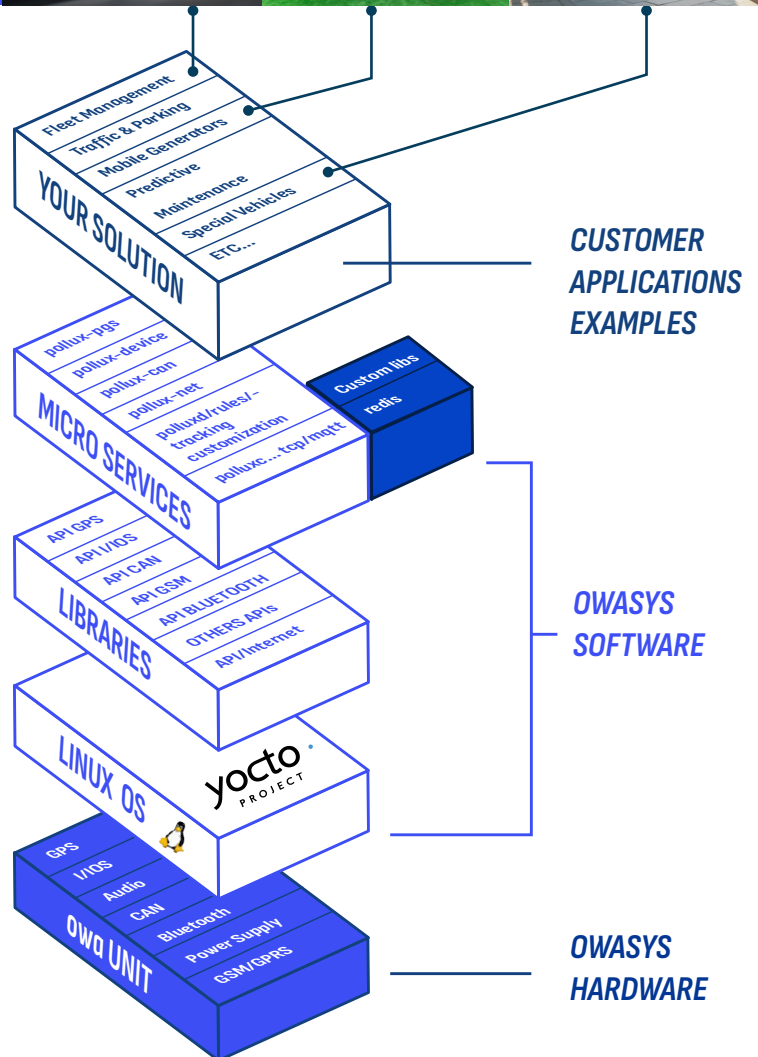
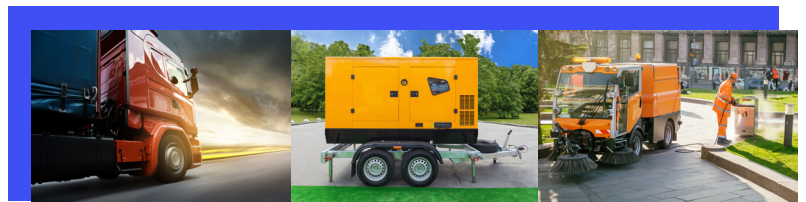
- CAN (up to 2 interfaces)
- Kline
- Ethernet 10/100Mbps - RJ45
- USB 2.0
- 2 RS232 interface
- Programable 3 Axis Accelerometer
- 6 digital output open drain 200mA
- 2 digital output high side 1A
- 9 digital input 0 to 50V
- 4 analog input, 0V to 30V
- 5V voltage output
- Nano SIM/MFF2
- Low Power Modes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



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Time to wireless!!

BOK 000 3011-C_owa344A Datasheet

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HMS GROUP MEMBER

**CPU**

- ARM Cortex A7 at 792MHz clock speed.
- Linux Kernel 6.6.15
- Yocto Kirkstone File System
- DDR3 512MB RAM
- NAND FLASH 512MB
- Optional EMMC 8GB for additional storage
- Optional TPM 2.0

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.

