

# owa344A

TAKE COMPLETE CONTROL OF REMOTE DATA COLLECTION AND PROCESSING  
THE owa344A IS THE PERFECT PLATFORM FOR CONTROLLING AND MONITORING  
YOUR INDUSTRIAL MACHINES AND VEHICLES

## owa344A Core:

- Linux Kernel 5.10.72
- Yocto Kirkstone 4.0 File System
- ARM Cortex A7 32 bit 792MHz
- 512MB DDR3
- 512MB NAND Flash
- Optional 8GB EMMC

## Wireless Interfaces:

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

## Key Features:

- CAN (up to 2 interfaces)
- Kline
- Ethernet 10/100Mbps - RJ45
- USB 2.0
- 2 RS232 interface
- Programmable 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

## Mechanics

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



yocto  
PROJECT

Cortex  
Low-Power Leadership from ARM

owasys<sup>®</sup>

Member of the HMS group

# owa344A

## TECHNICAL SPECIFICATIONS

### • CPU

- ARM Cortex A7 at 792MHz clock speed.
- Linux Kernel 5.10.72
- 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.
- 33-channel continuous tracking receiver.
- SBAS: WAAS, EGNOS, MSAS, GAGAN.
- Update Rate: up to 10Hz.
- Accuracy: <2.5 meters CEP.
- Signal Acquisition:
  - Cold Start: 35 s.
  - Hot Start: < 1 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.

### • 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 + ETH0	35,50 mA
RUN + GSM + GPS + ETH0	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.
- 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.



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