

owa22A

owa2X family

WIRELESS TELEMATIC UNIT

HARDWARE TERMINAL WITH OPEN SOFTWARE FOR THE DEVELOPMENT OF WIRELESS AUTOMOTIVE APPLICATIONS.
WIRELESS DEVICE THAT MAKES VEHICLE POSITIONING AND COMMUNICATIONS POSSIBLE.
LOCATE AND TALK TO YOUR FLEET, TURNING KILOMETRES INTO MILLIMETERS.
NO MATTER HOW FAR YOUR VEHICLE IS, YOUR DRIVER AND CARGO ARE ACCOMPANIED BY YOU.
COMBINES LINUX OS, GSM/GPRS WITH IP CONNECTIVITY AND GPS.

- GPRS Class B, Class 8 (4+1), GSM dual band 900/1800.
- ARM 7 core up to 60 MIPS, Linux OS and 1 Mbyte FLASH Memory free for customer application.
- GPS integrated.
- TCP/IP stack for transparent Internet Connection.
- Interfaces: RS232, RS485, CAN, Audio, general purpose analog and digital I/Os.
- Small Size.
- Application software upgradeable over the air.

Your reference partner for on board wireless telematic nodes!



168 mm. (W)

35 mm. (H)

55,25 mm. (L)

owasys

Advanced Wireless Devices

TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS

- Power Supply:
 - Nominal Voltage Range: 12 to 36 Vdc.
 - Maximum Voltage Range: 8 to 40 Vdc.
- Interfaces:
 - Power Supply.
 - 2 Analog Inputs.
 - 7 Digital Inputs (4 + 3).
 - 5 Digital Outputs (4 + 1), 2 configurable as PWM.
 - Audio IN/OUT (2,5 W).
 - RS-232 Serial Port.
 - RS-485 Port.
 - CAN Port.
 - Odometer Input.
 - GSM antenna connector.
 - GPS antenna connector.
- Approvals
 - CE Marking.
 - e-marking.
- Power Consumption-Typical Average @24V

Off	0,2 mA
Deep Sleep(1)	13 mA
Run(2)	115 mA
Battery Recharge(3)	Δ55 mA

(1) Only CPU in stand by.

(2) CPU+GSM (voice call at max. Power)+GPS, running.

(3) Only for owa22A/b

- Temperature:

Operating	-25°C to +55°C
Operating but not fully compliant with GSM	-25°C to +70°C
Storage	-40°C to +85°C
Operation with battery back up (3)	-20°C to +55°C

(3) Only for owa22A/b

FIRMWARE SPECIFICATIONS

- 32 bits RISC ARM7 core up to 60 MIPS (Dhrystone 2.1) at 70 Mhz.
- Linux OS (Kernel v.2.4.18).
- Memory:
 - 4 Mbyte FLASH (1 Mbyte available for SW application)
 - 16 Mbyte RAM (2 Mbyte available for SW application)
- Application Programming Interface for:
 - Owa22A control.
 - Power management.
 - GSM/GPRS.
 - Internet connection.
 - Controlling all the interfaces: I/Os, CAN.
 - GPS.

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GSM/GPRS SPECIFICATIONS

- EGSM 900 / GSM1800.
- Power Output at 900 MHz: 2W.
- Power Output at 1800 MHz: 1W.
- GPRS Class B, Class 8 (4+1).
- Audio calls.
- Data calls.
- SMS (MT/MO).

GPS SPECIFICATIONS

- Receiver: L1 frequency, 12 Channels.
- Update Rate: ≥ 1 Hz.
- Accuracy: 4m CEP (Circular Error Probability).
- Signal Acquisition:
 - Cold Start: 45 sec.
 - Warm Start: 38 sec.
 - Hot Start: < 8 sec.
- Signal Reacquisition: 100 ms.
- 3,3 Volt power supply for active antenna.

MECHANICAL SPECIFICATIONS

- Dimension: 168 (W) x 35 (H) x 55,25 (L).
- Weight: 290 gr.
- Material: Aluminium anodized.
- Connectors:
 - 2 SMA (female).
 - Molex 24 pins P/N 90130-3124.
 - RJ45.
 - 2 Jack 3,5 mm.
 - RS-232 DB-9 (female).
 - Molex Mini-fit 6 pins P/N 39-30-1060.
 - SIM card holder.

DEVELOPMENT KIT

A development kit is available, including:

- GSM/GPRS antenna.
- GPS antenna.
- Developer's board.
- Power supply cable.
- Cables for interfaces.
- CD with: Cross compiler, API's library, manuals, and applications notes.

RELATED PRODUCTS

- owa22A/b: with battery back-up.
- owa22I: without GPS.
- Universal Development Kit: a kit designed to accelerate the owa2X products integration and develop powerful applications.
- owa22I/22A-BT: 100 meters Bluetooth™connectivity and USB 1.1.
- owa22I-ETH: Ethernet 10baseT (10 Mbps, RJ45) and USB 1.1.