

# owa22A-BT

## WIRELESS EMBEDDED COMPUTER WITH BLUETOOTH CONNECTIVITY FOR TELEMATICS

HARDWARE TERMINAL WITH OPEN SOFTWARE FOR THE DEVELOPMENT OF WIRELESS AUTOMOTIVE LOCATION BASED APPLICATIONS.

WIRELESS DEVICE THAT MAKES VEHICLE POSITIONING AND COMMUNICATION 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.

IT COMBINES LINUX OS, GSM/GPRS WITH IP CONNECTIVITY, GPS AND ONBOARD WIRELESS CONNECTIVITY VIA BLUETOOTH TECHNOLOGY WITH A WIDE RANGE OF ACCESSORIES USING USB.

- GPRS Class B, Class 10 (4+2), GSM Quad Band, 850MHz, 900MHz, 1800MHz and 1900MHz.
- GPS integrated. WAAS and EGNOS support.
- TCP/IP stack for transparent Internet Connection.
- Embedded IP routing and firewall capabilities.
- RS232, RS485, CAN, Audio, General Purpose analog and digital I/Os.
- Bluetooth™ embedded functionality (100 meters).
- USB 1.1 compliant host.
- Back-up for Real Time Clock and GPS.
- Small Size.
- Software upgradeable over the air (controlled by the customer application).

*Your reference partner for on board wireless communication nodes!*



168 mm. (W)

35 mm. (H)

55,25 mm. (L)

## TECHNICAL SPECIFICATIONS

### GENERAL SPECIFICATIONS

- Power Supply:
  - Nominal Voltage Range: 12 to 36 Vdc.
- Interfaces:
  - Power Supply.
  - 7 Digital Inputs, 5 Digital Outputs, 2 Analog Inputs.
  - Audio IN/OUT (2,5 W).
  - RS-232 Serial Port. RS-485 and CAN Ports
  - Odometer Input.
  - GSM, GPS and Bluetooth antenna connectors.
  - USB 1.1 host connector.
- Approvals
  - CE Marking.
  - e-marking.
- Power Consumption-Typical Average @24V

Off	0,2 mA
Deep Sleep	13 mA
Run (GSM voice call + GPS)	115 mA
Bluetooth connected (Δ)	16 mA
USB active (Δ)	2 mA
Battery Recharge (1)	55 mA

(1) Only for owa22A/b-BT

- Temperature:

Operating	-25°C to +55°C
Operatig with GSM OFF	-40 C to +85 C
Storage	-40°C to +70°C
Operation with battery back up (1)	-20°C to +55°C

(1) Only for owa22A/b-BT

### FIRMWARE SPECIFICATIONS

- 32 bits RISC ARM7 core up to 60 MIPS (Dhrystone 2.1) at 70 Mhz.
- Linux OS (Kernel v.2.4.18).
- TCP/IP Stack.
- Memory:
  - 8 Mbyte FLASH
  - 16 Mbyte RAM
- Application Programming Interface for:
  - Owa22A control.
  - Power management.
  - GSM/GPRS.
  - Internet connection.
  - Controlling all the interfaces: I/Os.
  - GPS.
  - Bluetooth applications.

### GSM/GPRS SPECIFICATIONS

- GSM850 + EGSM900 + DCS1800 + PCS1900.
- Power Output Class 4 (2W) for GSM850/EGSM900.
- Power Output Class 1 (1W) for DCS1800/PCS1900.
- GPRS Class B, Class 10 (4+2).
- Audio and CSD Data calls.
- SMS (MT/MO).

### GPS SPECIFICATIONS-Suport for WAAS and EGNOS

- Receiver: L1 frequency, 16 Channels.
- Update Rate: ≥ 4 Hz Max.
- Accuracy: 2,5 m CEP (Circular Error Probability).
- Signal Acquisition:
  - Cold Start: 45 sec.
  - Warm Start: 33 sec.
  - Hot Start: < 3,5 sec
- Signal Reacquisition: < 1 sec.
- 3,3 Volt power supply for active antenna.

### BLUETOOTH™ SPECIFICATIONS

- 100 Meters, class 1.
- Bluetooth™ 1.1 compliant.
- Virtual Serial ports emulation.
- Wireless networking.

### MECHANICAL SPECIFICATIONS

- Dimension: 168 (W) x 35 (H) x 55,25 (L).
- Weight: < 360 gr.
- Material: Aluminium anodized.
- Connectors:
  - 3 SMA
  - Molex 24 pins P/N 90130-3124.
  - RJ45 for audio and secondary UART
  - RS-232 DB-9 (Female)
  - Molex Mini-fit 6 pins P/N 39-30-1060.
  - USB type A receptacle connector.

### UNIVERSAL DEVELOPMENT KIT

A development kit is available, including:

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

### RELATED PRODUCTS

- owa22A/b-BT: with battery back-up.
- owa22I-BT: without GPS.
- owa22I/22A.
- owa22I/22A-ETH: Ethernet 10baseT (10 Mbps, RJ45) and USB 1.1.