owa4X platform

POWERFUL LINUX IoT GATEWAY TO PROCESS DATA COMING FROM WIRED AND WIRELESS SENSORS/DEVICES/PERIPHERALS.

owa4X Core:
- LINUX Kernel 4.14.67
- Debian Distribution File System
- ARM Cortex A8 32 bit 800MHz
- 512MB DDR3
- 1GB NAND Flash
- Access to Debian Standard Repositories
- Able to run C, C++, Java, LUA applications

Key Features:
- IP67 Enclosure
- Internal antennas
- CAN (up to 4 interfaces)
- Kline (up to 2 interfaces)
- Global LTE Cat 4
- TPM 2.0
- Programable 9 Axis sensor:
  - Accelerometer/Gyroscope/Magnetometer
- Dead reckoning
- Ethernet 100Mbps
- Audio CODEC
- MicroSD
- Micro SIM and Chip SIM available

Wireless Interfaces:
- GNSS (GPS + GLONASS)
- CELULAR COMMUNICATIONS
  - UMTS/HSPA+
  - LTE CAT 4 / 3G / 2G
  - WIFI 802.11 a/b/g/n/ac
  - BT 4.2
• CPU
  – ARM Cortex A8 at 800MHz clock speed.
  – Linux Kernel 4.14.67
  – Debian File System
  – NAND FLASH 1GByte.
  – DDR3 512MBytes.
  – MicroSD card holder for additional storage.

• GNSS
  – Receiver: GPS/GLONASS/QZSS/BeiDou.
  – 72-channel* continuous tracking receiver.
  – GALILEO E1B/C ready.*
  – SBAS: WAAS, EGNOS, MSAS, GAGAN.
  – Update Rate: 10Hz.
  – Accuracy: 2 meters CEP.
  – Signal Acquisition:
    Cold Start: 26 s.
    Hot Start: < 1.5 s.
  – Signal Reacquisition: < 1 s.
  – Active Antenna Power Supply: +3.0V @ 34mA.
  * Features availability depending on version.

• Rugged enclosure
  – Environmental protection to IP67 standard.
    (full protection against dust and water).
  – Dimension: L=149 x W=135 x H=58 mm)
  – Weight: 385g
  – Material: Glass reinforced polyester.
  – System connectors: TE 776163-1 (35 pins)
  – MicroSIM
  – MicroSD

• Interfaces
  – Up to 4 CAN bus
    – 2 CAN bus supporting full speed 1Mbps CAN 2.0B.
    – 2 CAN FD supporting 8Mbps. (Only with Global LTE option)
  – Up to 2 K-line bus.
  – Integrated sensors.
    - Programmable 9 axis sensor, accelerometer, gyroscope and magnetometer.
  – TPM 2.0 (Only with Global LTE option)
  – 10 configurable digital inputoutputs:
    - 50V max inputs (logic low <1.5V, high >3V).
    - All inputs function as wake signals for low power modes.
    - All inputs can be used as counters (odometer). 32bit, 3Khz max.
    - 8 open collector outputs (100mA 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.
    - 2 Share digital I/O pins and 2 dedicated pins.
    - 0-5.12V (5mV per bit) or 0-30.72V (30mV per bit) configurable by sw.
  – Maxim 1wire
  – microSD card holder.
  – USB Host 2.0.
  – 3 external RS232 ports. 6 pins configurable by SW as follows:
    - 3 x (TX/RX) or
    - 1 x (TX/RX) & 1 x (TX/RX/CTS/RTS) or
    - 1 x (TX/RX/CTS/RTS/DCD/DTR)
  – One RS485 port.
  – Ethernet 10/100 BaseT.
  – Vout 5V power output (500 mA max).
  – FAKRA antenna connectors.
  – 4 LEDs for status indication.
  – Audio CODEC for external microphone and speaker.
  * Availability of features depends on models.

• POWER SUPPLY
  – UMTS/HSPA + Version:
    Nominal range of 9 V to 48 V.
  – Global LTE Version:
    Nominal range of 9 V to 36 V
  – Typical consumption at 24V:
    OFF  0.335 mA
    Standby 9.88 mA
    RUN 47 mA
    RUN + GSM + GPS 73 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
  – Storage -40 ºC to +85 ºC
  – Operating -40 ºC to +85 ºC
  – Operating from Li-Ion Battery -20 ºC to +60 ºC
  – Li-Ion Battery recharge 0 ºC to +45 ºC

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