IGW/963

CAN2IP Gateway

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Description

The very compact CAN-to-Ethernet Gateway IGW/963 transfers CAN data over TCP/IP or UDP/IP. It can be operated in two modes. The **bridge mode** connects two CAN busses at different locations through an IP network. The **gateway mode** allows to access a CAN bus with an external system via an IP network.

The IP network can be established over an Ethernet crossover cable, a LAN infrastructure or an internet-based SSL/TLS-secured VPN (Virtual Private Network). The peer-to-peer VPN connection works **without an additional VPN server**. The DynDNS support facilitates the remote access configuration.

To ensure a high level of safety and security the IGW/963 comes with an **integrated firewall** and NAT support, to protect the system against unauthorized network access.

The high-speed CAN interface (ISO 11898-2) is galvanically isolated and supports Baud rates from 50 kbps up to 1 Mbps. There are also two RS232 serial ports for further communication. The IGW/963 has a 32-bit ARM9 MCU @192 MHz, which leads to a **low power consumption** of only 1.2 W.

High Flexibility

To operate the IGW/963 in gateway mode, the delivery contains a sample **Python script** for external systems. It creates a virtual connection analogous to the bridge mode of two IGW/963. The script prepares the received CAN data for further processing and allows the conversion to other protocols such as IEC 60870-5, for instance to integrate a CAN bus in a telecontrol application. The script also supports the **forwarding of CAN data** to almost any other applications like IoT-/cloud platforms, databases, SCADA or MES/ERP systems.
## Specifications

### Processor
- **Manufacturer / Type**: Atmel AT91SAM9263 32-bit ARM9 MCU
- **Clock speed**: 192 MHz

### Memory
- **RAM**: 32 MB SDRAM
- **Flash**: 32 MB NOR memory
- **Storage media**: 1x microSD card slot

### Interfaces
- **Ethernet**: 1x 10/100 Mbps (RJ45)
- **Serial I/Os**:
  - 1x RS232 serial port with flow control (screw terminal)
  - 1x RS232 serial port RX/TX only (screw terminal)
- **CAN**:
  - 1x Galvanically isolated (screw terminal)
  - Baud rates from 50 kbps up to 1 Mbps
  - BasicCAN/FullCAN support
  - CAN 2.0A/2.0B support
  - CANopen protocol support

### Special Functions
- **RTC**: 1x Real Time Clock with internal battery-backup
- **Watchdog**:
  - 1x Timer watchdog (hardware-based, software-configurable)
  - 1x Power supervisor (hardware-based)

### Software
- **Operating system**: Embedded Linux kernel version 2.6
- **Web server**: lighttpd with SSL support
- **Programming environment**: C, C++, Unix shell, PHP 5.3 (optional)
- **IP address assignment**: Static, DHCP, AutoIP, UPlP
- **Protocol stack**: ARP, ICMP, IP, TCP, UDP, Telnet, FTP, HTTP, TFTP
- **TCP servers**: Telnet, (S)FTP, TFTP, HTTP
- **Security protocols**: SSL/SSH, HTTPS, OpenVPN, IPsec (optional)
- **Firewall**: netfilter, iptables
- **Proxy functions**: HTTP(S), FTP, Telnet, SSH, UDP

### Miscellaneous
- **Configuration**: WebUI
- **Displays / Control Elements**:
  - 1x Power
  - 1x LAN activity
  - 1x VPN connection established

### Electrical Characteristics
- **Power supply**: 12 .. 24 VDC from external power supply
- **Power consumption**: ~1.2 W

### Mechanical Characteristics
- **Protection class**: IP20 industrial case for 35 mm DIN-rail mounting
- **Mass**: < 150 g
- **Dimensions**: 114.5 mm x 100 mm x 22.5 mm
- **Operating temp.**: 0 .. 70 °C

### Standards and Certifications
- **EMC**: CE
- **Environmental standards**: RoHS, WEEE

### Order Information
- **Order number**: PX-87767

## Scope of Delivery
- 1x CAN2IP Gateway IGW/963

## Startup Package (optional)
- 1x 24 VDC Plug-in power supply
- 2x Adapter cable with RS232 connector
- 1x Null modem cable
- 1x CD-ROM

## Product Variants
Customized variants with preinstalled configuration and/or individual case design on request.

## Similar Products
- Embedded module DIL/NetPC DNP/9265

## Contact Information
Please don’t hesitate to contact us for more information about our products and services.

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