IGW/963

CAN2IP Gateway

- ***High-speed CAN Interface***
- ***OpenVPN Client and Server***
- ***Firewall with NAT Support***
- ***CAN to Internet Support***
- ***Free Programmable***
- ***12 – 24 VDC Power Supply***
- ***DIN-rail Mounting***

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.

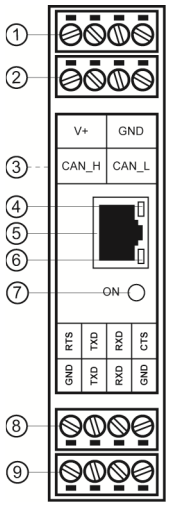
To ensure a high level of safety and security the IGW/963 comes with an **integrated firewall** and NAT support, to protect the system against unauthorized network access.

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

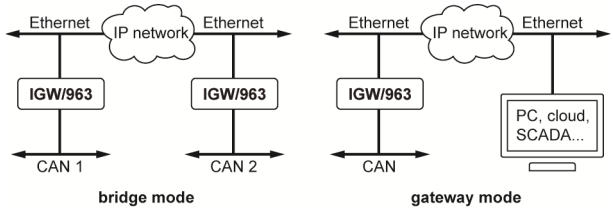
To operate the IGW/963 in gateway mode, the delivery contains a sample **Python script** for external systems. It creates a virtual connection analogous to the bridge mode of two IGW/963. The script prepares the received CAN data for further processing and allows the conversion to other protocols such 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.

Overview



① Power Supply
② CAN Interface
③ DIN-rail Mounting (back)
④ VPN LED
⑤ Ethernet Interface
⑥ LAN LED
⑦ Power LED
⑧ RS232 Serial Port COM1
⑨ RS232 Serial Port COM2

Basic hardware interfaces of the IGW/963



Configuration of the IGW/963 as CAN bridge or gateway

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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, UPnP
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
Configuration	WebUI
Miscellaneous	DynDNS support Firmware update over WebUI
Displays / Control Elements	
LEDs	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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