

# IGW/922-U

## Wireless VPN Remote Access Gateway



- ✓ **UMTS/HSPA Modem**
- ✓ **OpenVPN Client and Server**
- ✓ **Firewall with NAT Support**
- ✓ **Free Programmable**
- ✓ **Optional IEC 61850 Support**
- ✓ **12 – 24 VDC Power Supply**
- ✓ **DIN-rail Mounting**

## Description

The Remote Access Gateway IGW/922-U was developed to integrate any Ethernet-based devices, subsystems and automation components in control cabinets or even complete subnetworks very easy into a **VPN** (Virtual Private Network).

This allows a highly secured remote access to these systems and devices via Internet.

Through the separation of the two Ethernet interfaces, the protected device or LAN is completely isolated from external access.

## Safety & Security

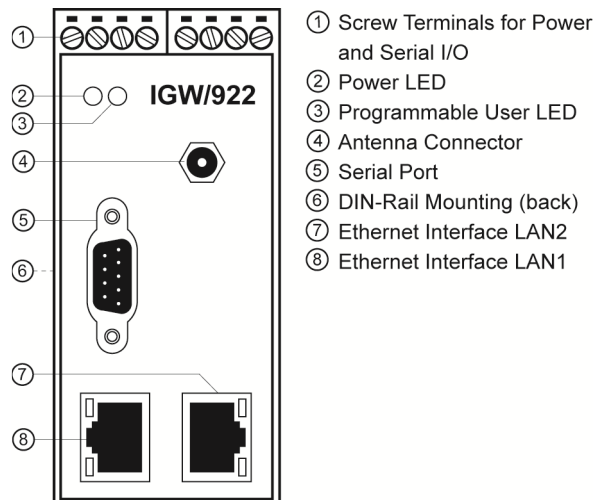
To ensure this high level of safety and security the IGW/922-U offers many integrated security functions like **OpenVPN**, **OpenSSL** (incl. SSL/TLS), **Firewall with NAT support** as well as **SSH**, which protect a local automation Ethernet network from unauthorized remote access.

Beside the HTTP access it is possible to protect any TCP server as well as the Telnet and FTP access of automation components with the IGW/922-U. In this case the external access is only possible via SSH or VPN tunnel. The implementation of the local servers is done by the IGW/922-U.

All the software features of the IGW/922-U can be easily configured over the **SSVWebConfig Tool** with a standard web browser.

To increase the security of the system, SSV offers the **security dongle SEC/1** as optional accessory. The SEC/1 protects the access to the configuration interface of the IGW/922-U with a challenge-response authentication.

## Overview



Basic hardware interfaces of the IGW/922-U

## ADNP/9200 Inside

The embedded engine of the IGW/922 is the DIL/NetPC ADNP/9200 with a 32-bit ARM9 MCU @180 MHz. Its Embedded Gateway Linux (kernel version 2.6 with special expansions) and the contained GNU tools allow the development and implementation of own applications.

Furthermore the software functions can be complemented with additional IP-based protocols.

## Specifications

Processor	
Manufacturer / Type	Atmel AT91RM9200 32-bit ARM9-MCU
Clock speed	180 MHz
Memory	
RAM	64 MB SDRAM
Flash	32 MB NOR memory
Interfaces	
Ethernet	2x 10/100 Mbps (RJ45)
Serial I/Os	1x RS232 serial port (Sub-D) 1x RS232/RS485 serial port (screw terminal)
Alarm output	1x Semiconductor relay output (max. 30 VDC, 500 mA)
Special Functions	
RTC	1x Real Time Clock with internal battery-backup
Watchdog	1x Timer watchdog (hardware-based, software-configurable) 1x Power supervisor (hardware-based)
SIM card	1x Mini-SIM card holder (inside the device)
Wireless Module	
Mobile radio standards	UMTS/HSDPA/HSUPA 3GPP release 7, UMTS power class 3, GSM power class 4 (backward compatible with GPRS multi-slot class 12 and EDGE multi-slot class 12)
Transfer rates	7.2 Mbps peak download, 5.76 Mbps peak upload
Frequency bands	UMTS/HSPA dual-band 900/2100 MHz (Europe) GSM/GPRS dual-band 900/1800 MHz (Europe)
Authentication	PAP, CHAP, CHAT, none
Supported APNs	Telekom, Vodafone, 02, E-Plus, user-defined
Software	
Operating system	Embedded Linux kernel version 2.6
Web server	lighttpd with SSL support
Programming environment	C, C++, Unix shell, Python 2.7 (optional)
IP address assignment	Static, DHCP, AutoIP, UPnP, SSV IP-by-Net
Protocol stack	ARP, ICMP, IP, TCP, UDP, Telnet, FTP, HTTP, TFTP
Optional protocols	Modbus TCP/RTU (server + client), M-Bus, ACCON AGLink
Security protocols	SSL/SSH, HTTPS, OpenVPN, IPsec
TCP servers	Telnet, FTP, TFTP, HTTP, SNMPv2/v3 (optional)
Firewall	netfilter + iptables
Proxy functions	HTTP(S), FTP, Telnet, SSH, generic TCP port mapping
Configuration	WebUI
Miscellaneous	DynDNS support IEC 61850 protocol support (optional)
Displays / Control Elements	
LEDs	1x Power 1x IGW start-up + VPN status (programmable) 1x LAN LED for each Ethernet interface
Electrical Characteristics	
Power supply	12 .. 24 VDC from external power supply
Power consumption	< 4 W
Mechanical Characteristics	
Protection class	IP20 industrial case for 35 mm DIN-rail mounting
Mass	< 270 g
Dimensions	112 mm x 100 mm x 45 mm
Operating temp.	0 .. 70 °C

Standards and Certifications	
EMC	CE
Environmental standards	RoHS, WEEE
Industrial standards	VHPreedy (Virtual Heat & Power Ready)
Security	Penetration testing and dynamic analysis: fuzzing tested by SoftScheck GmbH
Order information	
Order number	PX-83156

## Scope of Delivery

- 1x VPN Remote Access Gateway IGW/922-U
- 1x UMTS/GSM magnetic base antenna with 2.5 m cable

## Startup Package (optional)

- 1x Plug-in power supply
- 1x Null modem cable
- 1x CD-ROM

## Product Variants

- IGW/922
- IGW/922-G with GSM/GPRS modem
- IGW/922-W with WiFi transceiver
- IGW/922-MOE with AT modem emulator

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

## Optional Accessories

- Security Dongle SEC/1

## Similar Products

- VPN Remote Access Gateway IGW/925-U
- Application Gateway IGW/936-L

## Contact Information

Please don't hesitate to contact us for more information about our products and services.

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