IGW/922-U-MOE

Wireless AT Modem Emulator Gateway

- ***UMTS/HSPA Modem***
- ***AT Modem Emulator Software***
- ***1:1 Modem/CSD Replacement by IP***
- ***OpenVPN Client and Server***
- ***Firewall with NAT Support***
- ***12 – 24 VDC Power Supply***
- ***DIN-rail Mounting***

Description

Until 2018 the German classic Analog- and ISDN phone lines will be turned off and switched to IP-based lines. Other countries already turned off or plan to turn off in future. To allow an easy 1:1 replacement the AT Modem Emulator Gateway IGW/922-U-MOE enables existing modem communication applications to interact over local IP networks or **VPN** (Virtual Private Network) secured Internet connections instead of dialing a telephone number.

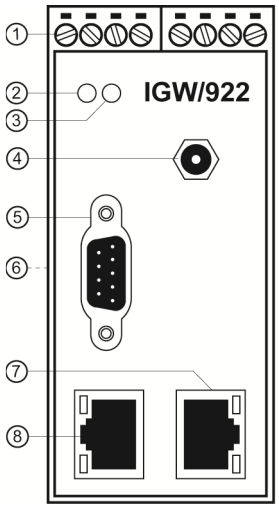
The IGW/922-U-MOE fully replaces the modems on both sending and receiving side and allows the further usage of applications working with AT command-based communication or CSD calls.
On the sending side it maps a phone number with an IP address and connects to the remote side via LAN or Internet. On the remote side it detects the incoming connection and emulates an incoming call to turn the received AT commands to a machine like a real physical modem.
So instead of direct phone calls the LAN or Internet can be used to connect regular communication software.

For the fast and simple integration into existing network environments the IGW/922-U-MOE also offers **AutoIP** and **UPnP**.

Safety & Security

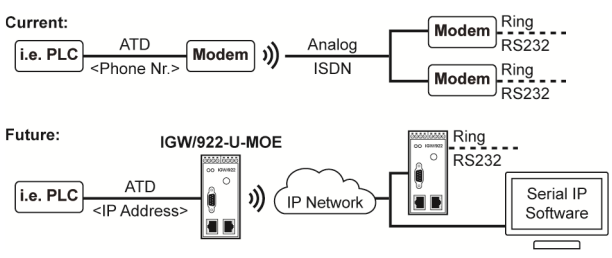
To ensure this high level of safety and security the IGW/922-U-MOE offers many integrated security functions like **OpenVPN**, **OpenSSL** (incl. SSL/TLS), **Firewall with NAT support** as well as **SSH**, which protect local Ethernet networks from unauthorized remote access.
All the software features of the IGW/922-U-MOE including the AT Modem Emulator settings can be easily configured over the **SSV/WebConfig Tool** with a standard web browser.

Overview



① Screw Terminals for Power and Serial I/O
② Power LED
③ Programmable User LED
④ Antenna Connector
⑤ Serial Port
⑥ DIN-Rail Mounting (back)
⑦ Ethernet Interface LAN2
⑧ Ethernet Interface LAN1

Basic hardware interfaces of the IGW/922-U-MOE



Replacing analog modems with the IGW/922-U-MOE

Rev. B, 02/2016, wbu

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
AT Modem Emulator	
Baud rate	300 up to 115.200 baud
Data bits / stop bits	8 / 1
Parity	None
Flow control	Hardware, XON
Protocol	TCP
Mapping	Max. 10 phone book to IP mapping entries
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	RoHS, WEEE
Order information	
Order number	PX-87786

Scope of Delivery

- 1x AT Modem Emulator Gateway IGW/922-U-MOE
- 1x Null modem cable MOE
- 1x UMTS/GSM magnetic base antenna with 2.5 m cable

Startup Package (optional)

- 1x Plug-in power supply
- 1x Adapter cable with RS232 connector
- 1x CD-ROM

Product Variants

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

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

Optional Accessories

- Security Dongle SEC/1

Similar Products

- AT Modem Emulator Module DIL/NetPC DNP/9265-MOE
- AT Modem Emulator Module incl. Socket-Modem-Adapter DIL/NetPC DNP/9265-SMOE

Contact Information

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