

# LTE ROUTER

## IGW/936-L

- ✓ OpenVPN Client and Server
- ✓ Firewall with NAT Support
- ✓ Free Programmable
- ✓ Optional Node-RED Flow Editor
- ✓ DIN-rail Mounting



### High-speed Wireless Application Gateway with LTE Router

The high performance Application Gateway IGW/936-L was developed to receive and read data from various sources like **TCP, UDP**, and more. The IGW/936-L processes collected data and sends it via **LTE** with up to **150 Mbps** downstream and **50 Mbps** upstream – so it is able to handle applications with big data transfers easily.

The integrated **SSV/WebUI** framework allows passing data for diverse purposes to different end devices like PCs, smartphones or tablets.

The SSV/WebUI uses only standard web technologies for the output like **HTTP(S), HTML, CSS, JavaScript and REST**-based web services. As a result, every professional web developer has the know-how to customize the web-based user interface for his individual requirements within shortest time.

#### Visualization & IoT

The IGW/936-L is equipped with all necessary software to develop and operate own web-based visualizations: **Web server with SSL support, (S)FTP/TFTP** server and programming environments for **Python and PHP**.

Optional the IGW/936-L can be delivered with the preinstalled **Node-RED** flow editor to create IoT applications. Node-RED is a visual tool for wiring together hardware, APIs and online services.

The browser-based flow editor makes it easy to wire together flows by using standard nodes. The IGW/936-L also provides special SSV nodes: **Smart Connection Nodes**. Completed flows can be then deployed to the runtime with a single click.

#### Safety & Security

To ensure a high level of safety and security, the IGW/936-L contains a **Firewall, SSH, OpenVPN, and OpenSSL** (incl. SSL/TLS).

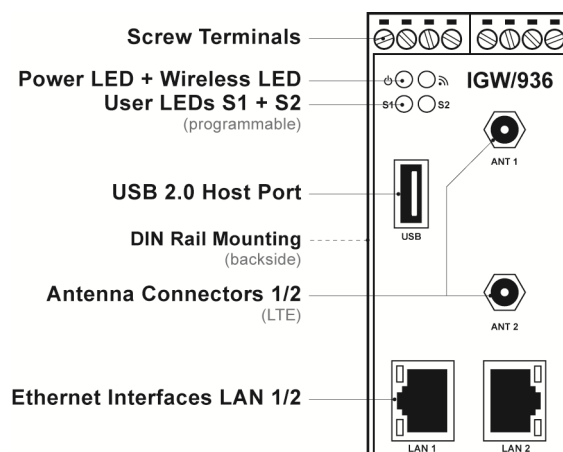
For a fast and simple integration of the IGW/936-L into existing network environments, it also offers **AutoIP** and **UPnP**.

All software features of the IGW/936-L can be easily configured over the **SSV/WebUI** tool with a standard web browser.

### SPECIFICATIONS

Processor	
Manufacturer / Type	Texas Instruments AM3517 32-bit ARM Cortex-A8 SoC
Clock speed	600 MHz
Memory	
RAM	256 MB SDRAM
Flash	1 GB NAND memory, 8 MB NOR memory
Storage media	1x internal microSD card holder
Interfaces	
Ethernet	1x 10/100/1000 Mbps with Auto MDI-X (LAN 2, RJ45) 1x 10/100 Mbps (LAN 1, RJ45)
USB	1x USB 2.0 Host
Serial I/Os	1x RS485 serial port (screw terminal) 1x RS232/RS485 serial port (screw terminal)
Antenna	2x SMA female (bulkhead) connector

### OVERVIEW



### Special Functions

<b>RTC</b>	1x Real Time Clock
<b>Watchdog</b>	1x Timer watchdog (hardware-based, software-configurable) 1x Power supervisor (hardware-based)
<b>SIM card</b>	1x Mini-SIM card holder (accessible from the outside)

### Wireless Module

<b>Mobile radio standards</b>	GSM/UMTS/HSPA+/LTE
<b>Transfer rates</b>	150 Mbps peak download, 50 Mbps peak upload
<b>Frequency bands</b>	LTE: 2600 MHz (B7), 2100 MHz (B1), 1800 MHz (B3), 900 MHz (B8), 850 MHz (B5), 800 MHz (B20) WCDMA: 2100 MHz (B1), 850 MHz (B5), 900 MHz (B8) GSM/GPRS quad-band 850/900/1800/1900 MHz
<b>Authentication</b>	PAP, CHAP, CHAT, none
<b>Supported APNs</b>	Telekom, Vodafone, O2, E-Plus, user-defined

### Software

<b>Operating system</b>	Debian 10 Linux
<b>Web server</b>	lighttpd with SSL support
<b>Programming environment</b>	Python, PHP, Node.js, Bash
<b>IP address assignment</b>	Static, DHCP, AutoIP, UPnP
<b>Protocol stack</b>	ARP, ICMP, IP, TCP, UDP, SSH, FTP, HTTP, TFTP, Modbus TCP/RTU (server + client), MQTT
<b>Security protocols</b>	SSL/SSH, HTTPS, TLS 1.2, OpenVPN
<b>TCP servers</b>	SSH, (S)FTP, TFTP, HTTP
<b>Firewall</b>	netfilter + iptables
<b>Proxy functions</b>	HTTP(S), FTP, SSH, generic TCP port mapping
<b>Configuration</b>	WebUI
<b>Internet of Things Tools</b>	Node-RED + SSV Smart Connection Nodes (optional)
<b>Miscellaneous</b>	DynDNS support Firmware update over WebUI

### Displays / Control Elements

<b>LEDs</b>	1x Power 1x Wireless 1x System status (programmable) 1x VPN status (programmable)
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### Electrical Characteristics

<b>Power supply</b>	12 .. 24 VDC from external power supply
<b>Power consumption</b>	< 15 W

### Mechanical Characteristics

<b>Protection class</b>	IP20 industrial case for 35 mm DIN-rail mounting
<b>Mass</b>	< 270 g
<b>Dimensions</b>	112 mm x 100 mm x 45 mm
<b>Operating temp.</b>	0 .. 60 °C

### Standards and Certifications

<b>EMC</b>	CE
<b>Environmental standards</b>	RoHS, WEEE

### Order information

<b>Order number</b>	PX-87775
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### SCOPE OF DELIVERY

- 1x Application Gateway IGW/936-L
- 1x LTE/UMTS/GSM magnetic base antenna with 3 m cable

### STARTUP PACKAGE (OPTIONAL)

- 1x Plug-in power supply
- 1x CD-ROM

### PRODUCT VARIANTS

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

### SIMILAR PRODUCTS

- VPN Remote Access Gateway IGW/922 G, IGW/922 U
- VPN Remote Access Gateway IGW/925 G, IGW/925 U
- Web Application Gateway IGW/935

### COMPATIBLE PRODUCTS

- A/D-Extension IO/5640

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