

WEB APPLICATION GATEWAY

# IGW/935

with eSOM/3517



## Hardware Reference

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# 1 INTRODUCTION

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This document gives an overview about the basic hardware components of the Web Application Gateway IGW/935. The main applications of the IGW/935 are:

- (Web) Application Gateway
- Industrial Firewall
- Proxy Server
- VPN Gateway / Router
- Linux Device Server

## 1.1 Checklist

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Compare the content of your IGW/935 package with the checklist below. If any item is missing or appears to be damaged, please contact SSV.

- ✓ **Web Application Gateway IGW/935**

## 1.2 Document Conventions

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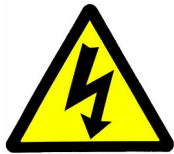
Convention	Usage
<b>bold</b>	Important terms
<code>monospace</code>	Filenames, Pathnames, program code, command lines

Table 1: Conventions used in this document

## 2 SAFETY GUIDELINES

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Please read the following safety guidelines carefully! In case of property or personal damage by not paying attention to this document and/or by incorrect handling, we do not assume liability. In such cases any warranty claim expires.



**ATTENTION!**

**OBSERVE PRECAUTIONS FOR HANDLING – ELECTROSTATIC SENSITIVE DEVICE!**

- The power supply should be in immediate proximity to the device.
- The power supply must provide a stable output voltage at 12..24 VDC  $\pm 10\%$ . The output power should be at least 10 W.
- Please pay attention that the power cord or other cables are not squeezed or damaged in any way when you set up the device.
- Do NOT turn on the power supply while connecting any cables, especially the power cables. This could cause damaged device components! First connect the cables and THEN turn the power supply on.
- The installation of the device should be done only by qualified personnel.
- Discharge yourself electrostatic before you work with the device, e.g. by touching a heater of metal, to avoid damages.
- Stay grounded while working with the device to avoid damage through electrostatic discharge.
- The case of the device should be opened only by qualified personnel.

## 3 OVERVIEW

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### 3.1 Features and Technical Data

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<b>Processor</b>	
<b>Manufacturer / Type</b>	Texas Instruments AM3517 32-bit ARM Cortex-A8 SoC (eSOM/3517)
<b>Clock speed</b>	600 MHz
<b>Memory</b>	
<b>RAM</b>	256 MB SDRAM
<b>Flash</b>	1 GB NAND memory, 8 MB NOR memory
<b>Interfaces</b>	
<b>Ethernet</b>	1x 10/100 Mbps (RJ45)
<b>USB</b>	1x USB 2.0 Host
<b>Serial I/Os</b>	1x RS485 serial port (screw terminal)
<b>Special Functions</b>	
<b>RTC</b>	1x Real Time Clock
<b>Watchdog</b>	1x Timer watchdog (hardware-based, software-configurable) 1x Power supervisor (hardware-based)
<b>Displays / Control Elements</b>	
<b>LEDs</b>	1x Power 1x Wireless (not used) 1x System status (programmable) 1x VPN status (programmable)
<b>Electrical Characteristics</b>	
<b>Supply voltage</b>	12 .. 24 VDC (typ. 24 VDC) from external power supply
<b>Power consumption</b>	< 15 W
<b>Mechanical Characteristics</b>	
<b>Protection class</b>	IP20 industrial case for 35 mm DIN-rail mounting
<b>Mass</b>	< 150 g
<b>Dimensions</b>	112 mm x 100 mm x 22.5 mm
<b>Operating temperature</b>	0 .. 60 °C
<b>Standards and Certifications</b>	
<b>EMC</b>	CE
<b>Environmental standards</b>	RoHS, WEEE

Table 2: Technical Data of IGW/935

### 3.2 Device Layout

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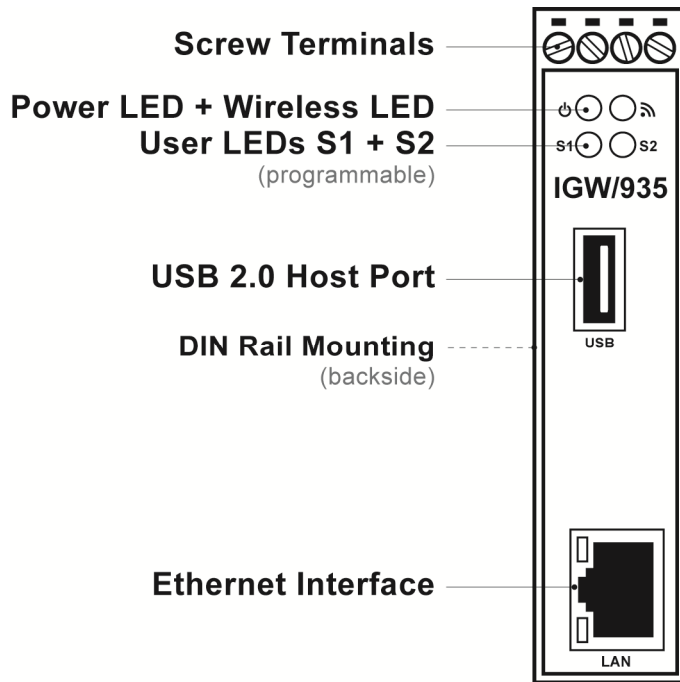


Figure 1: Layout of IGW/935

## 4 PINOUTS

### 4.1 Ethernet LAN Interface



Pin	Name	Function
1	TX+	10/100 Mbps LAN, TX+ Pin
2	TX-	10/100 Mbps LAN, TX- Pin
3	RX+	10/100 Mbps LAN, RX+ Pin
4	---	Not Connected
5	---	Not Connected
6	RX-	10/100 Mbps LAN, RX- Pin
7	---	Not Connected
8	---	Not Connected

Table 3: Pinout LAN interface

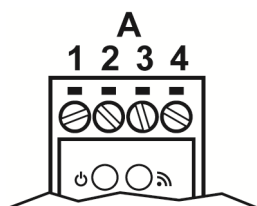
### 4.2 USB 2.0 Host Port



Pin	Name	Function
1	VCC5	5 VDC Power Output
2	DATA-	USB Host -
3	DATA+	USB Host +
4	GND	Ground

Table 4: Pinout USB host port

### 4.3 Screw Terminals



Terminal	Signal
A1	COM2 Serial Port: RS485 RX/TX+
A2	COM2 Serial Port: RS485 RX/TX-
A3	Vin + (12 .. 24 VDC)
A4	Vin -

Table 5: Pinout screw terminals



**Please note:**

The RS485 (officially called TIA/EIA-485-A) connection between your IGW/935 and the field devices needs termination resistors on both ends for proper operation. The IGW/935 does not offer internal termination resistors. Please make sure, that the RS485 cable connection is equipped with external termination resistors.

## 5 HELPFUL LITERATURE

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- eSOM/3517 Hardware Reference
- SSV Web ConfigTool User Manual

## CONTACT

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Social: [www.linkedin.com/company/ssv-software-systems](http://www.linkedin.com/company/ssv-software-systems)

## DOCUMENT HISTORY

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Revision	Date	Remarks	Name	Review
1.0	2013-03-08	first version	WBU	SSC
1.1	2015-08-26	edited chapter 1.3	WBU	SSC
1.2	2023-07-11	new layout, removed information about DVI	WBU	ENE

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