



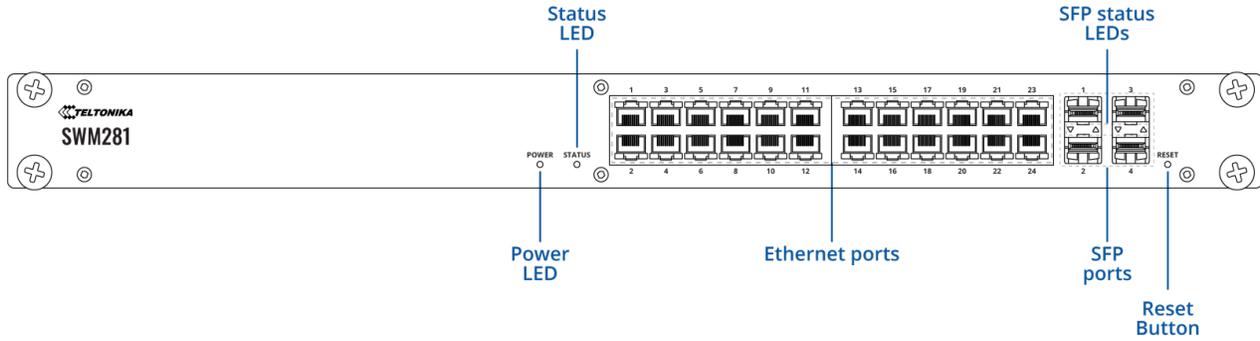
# SWM281

v1.0

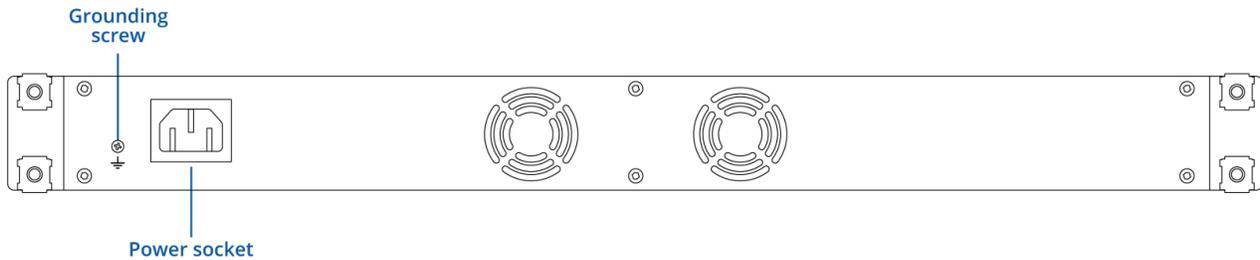


## HARDWARE

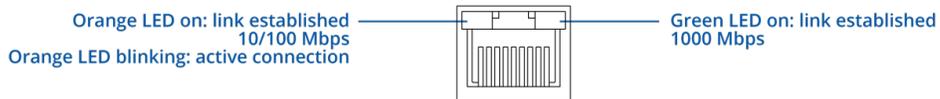
### FRONT VIEW



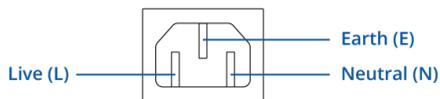
### BACK VIEW



### RJ45 LED MEANING



### POWER SOCKET PINOUT



## FEATURES

### Ethernet

<b>Fiber</b>	4 x SFP ports
<b>IEEE 802.3 series standards</b>	802.3i, 802.3u, 802.3ab, 802.3x, 802.3az
<b>ETH</b>	Multi-layer managed 24 x ETH ports, 10/100/1000 Mbps, supports auto MDI/MDIX crossover

### INDUSTRIAL PROTOCOLS

<b>Profinet</b>	Profinet Class B conformance (available with optional order code)
-----------------	---

### Services

<b>EtherNet/IP</b>	Yes
<b>SNMP V2, V3</b>	Yes
<b>LLDP</b>	Yes
<b>Network Management</b>	802.1p class of service, 802.1x port-based network access control, 802.1Q VLAN

### Network

<b>Routing</b>	Dynamic routing (BGP, OSPF v2, RIP v1/v2, EIGRP)
<b>MRP</b>	MRP client role, MRP manager role
<b>L2 features</b>	Loop protection, Forwarding table, VLAN, STP/RSTP
<b>DHCP</b>	DHCP server, DHCP client, DHCP static leases capable of using MAC with wildcards
<b>Port Settings</b>	Enable/disable, link speed control, port isolation, EEE (802.3az) management, Port Mirroring
<b>L3 Features</b>	Static IPv4 routing, static IPv6 routing, DHCPv6 client, static IPv6 address

### QoS

<b>QOS</b>	Port priority, DSCP priority, 802.1p priority, TOS
<b>Scheduling method</b>	SP/WFQ/WRR
<b>Bandwidth control</b>	Rate limiting, storm control
<b>Traffic Shaper</b>	Port-based shaping

### Diagnostics

<b>Tools</b>	Cable diagnostic, ping, traceroute, nslookup
--------------	--

## Security

<b>Authentication</b>	PAM — preshared key, Radius & TACACS+, IP & login attempts block
<b>VLAN</b>	Port VLAN separation
<b>TPM</b>	Identification and authentication module, TPM 2.0 standard
<b>802.1x</b>	Port-based network access control client and server
<b>MAC filtering support</b>	Enable MAC filtering functionality to control access to the TSW. This feature allows users to permit or deny specific devices from communicating through the TSW by entering their MAC addresses

## API

<b>Teltonika Networks Web API (beta) support</b>	Expand your device's possibilities by using a set of configurable API endpoints to retrieve or change data. For more information, please refer to this documentation: <a href="https://developers.teltonika-networks.com">https://developers.teltonika-networks.com</a>
--	---

## System Characteristics

<b>CPU</b>	Realtek, single core, 500MHz, MIPS-4KEc
<b>RAM</b>	128MB, DDR3
<b>FLASH storage</b>	16 MB serial flash

## Firmware / Configuration

<b>WEB UI</b>	Update FW from file, check FW on server, configuration profiles, configuration backup
<b>FOTA</b>	Update FW
<b>RMS</b>	Update FW/configuration for multiple devices at once
<b>Keep settings</b>	Update FW without losing current configuration
<b>Factory settings reset</b>	A full factory reset restores all system settings, including the IP address, PIN, and user data to the default manufacturer's configuration

## FIRMWARE CUSTOMISATION

<b>Operating system</b>	TSWOS (OpenWrt based Linux OS)
<b>Supported languages</b>	Busybox shell, Lua, C, C++
<b>Development tools</b>	SDK package with build environment provided
<b>Package Manager</b>	The Package Manager is a service used to install additional software on the device

### Performance Specifications

---

<b>Bandwidth (Non-blocking)</b>	56 Gbps
<b>Forwarding rate</b>	83.33 Mpps
<b>Packet buffer</b>	512 KB
<b>MAC address table size</b>	8K entries
<b>Jumbo frame support</b>	10000 bytes

### Power

---

<b>Connector</b>	C14 connector
<b>Input voltage range</b>	100-240 VAC, 50/60 Hz
<b>Power consumption</b>	Idle: 5.5 W / Max: 20 W

### Physical Interfaces

---

<b>Ethernet</b>	24 x RJ45 ports, 10/100/1000 Mbps
<b>Fiber</b>	4 x SFP ports
<b>Status LEDs</b>	1 x Power LED, 48 x ETH status LEDs, 1 x Status LED, 4 x SFP status LEDs
<b>Power</b>	1 x C14 connector
<b>Reset</b>	Software reset button
<b>Other</b>	1 x Grounding screw

### Physical Specification

---

<b>Casing material</b>	Anodized aluminum housing and panels
<b>Dimensions (W x H x D)</b>	483 x 44 x 234 mm
<b>Weight</b>	1853 g
<b>Mounting options</b>	Rack mounting kit

### Operating Environment

---

<b>Operating temperature</b>	0 °C to 50 °C
<b>Operating humidity</b>	10% to 90% non-condensing
<b>Ingress Protection Rating</b>	IP30

### Regulatory & Type Approvals

---

<b>Regulatory</b>	CE, UKCA, CB, RCM, FCC, IC
-------------------	----------------------------

## ORDERING

### STANDARD PACKAGE\*



- SWM281 L2+ managed switch
- QSG (Quick Start Guide)
- Packaging box

\*Standard package contents may differ based on standard order codes.

For more information on all available packaging options – please [contact us](#) directly.

### CLASSIFICATION CODES

**HS Code:** 851762

**HTS:** 8517.62.00

### AVAILABLE VERSIONS

SWM281 *****0	N/A	SWM281000000 / Standard package
<b>PROFINET disabled by default</b>		
SWM281 *****1	N/A	SWM281000001 / Standard package
<b>Profinet Class B conformance</b>		

For more information on all available packaging options – please [contact us](#) directly.

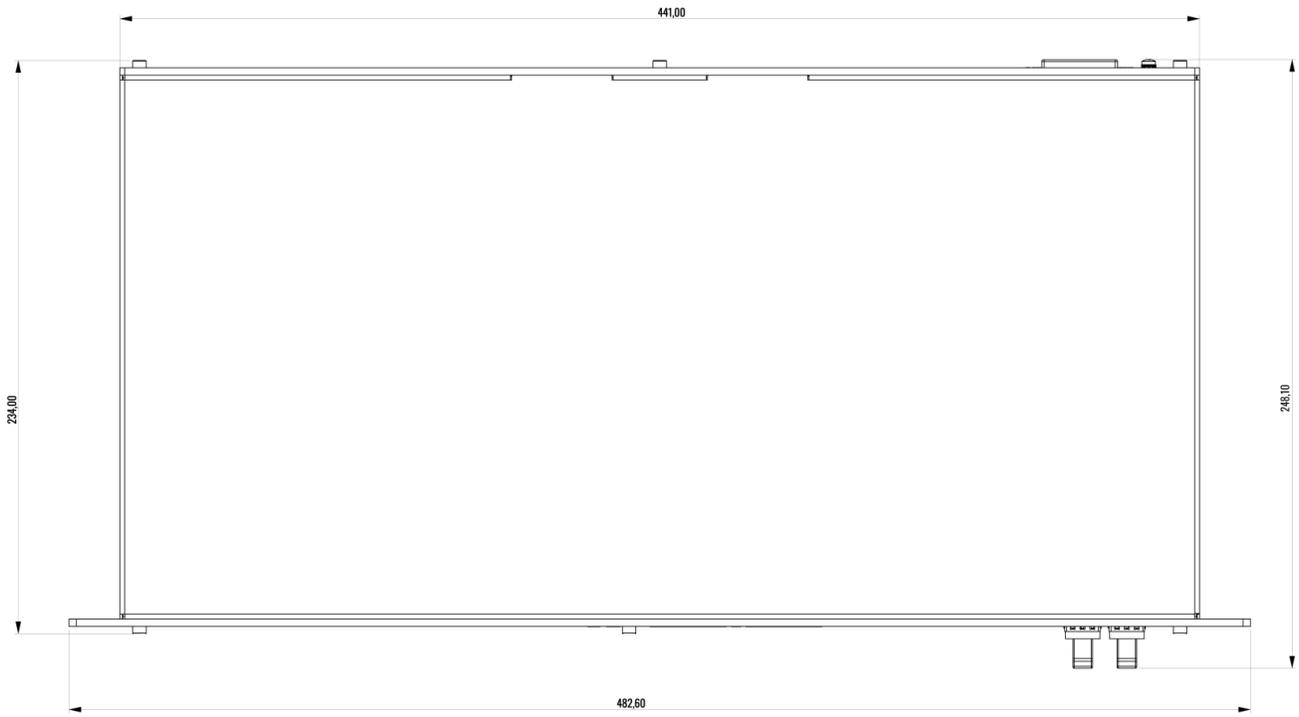
## SWM281 SPATIAL MEASUREMENTS

### PHYSICAL SPECIFICATION

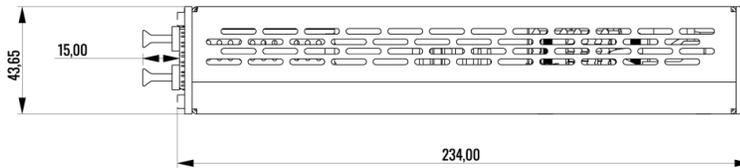
<b>Device housing (W x H x D):</b>	483 x 44 x 234 mm
<b>Box (W x H x D):</b>	510 x 73 x 318 mm

**TOP VIEW**

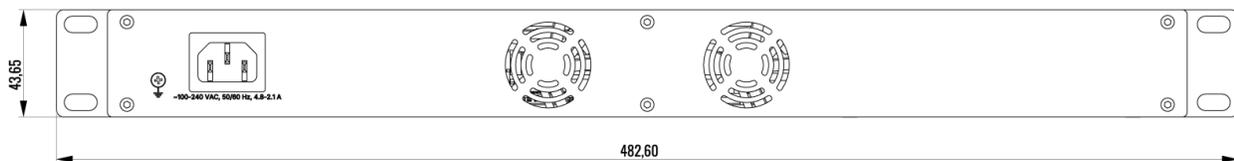
The figure below depicts the measurements of device and its components as seen from the top:


**RIGHT VIEW**

The figure below depicts the measurements of device and its components as seen from the right:

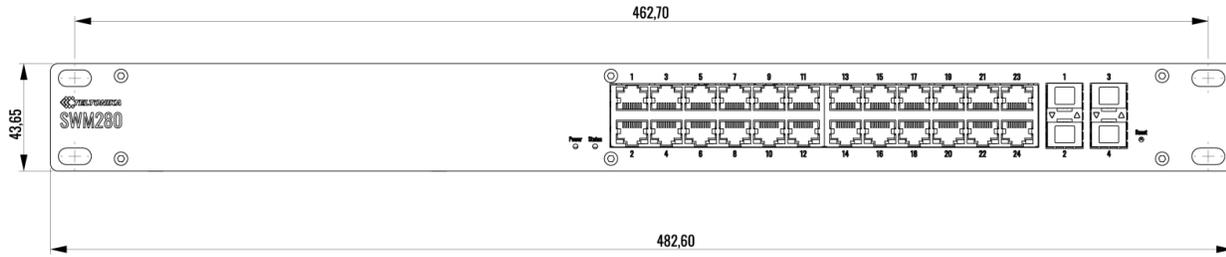

**REAR VIEW**

The figure below depicts the measurements of device and its components as seen from the back panel side:



**FRONT VIEW**

The figure below depicts the measurements of device and its components as seen from the front panel side:


**MOUNTING SPACE REQUIREMENTS**

The figure below depicts an approximation of the device's dimensions when cables and antennas are attached:

