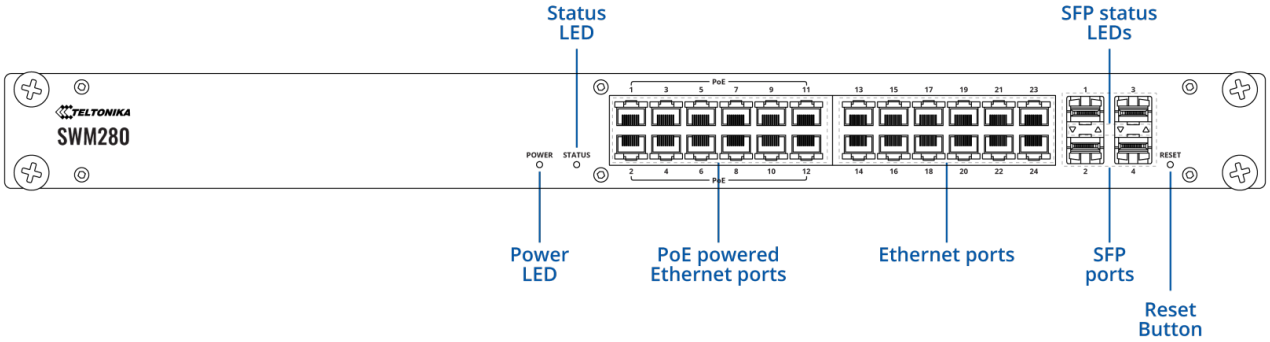
SWM280

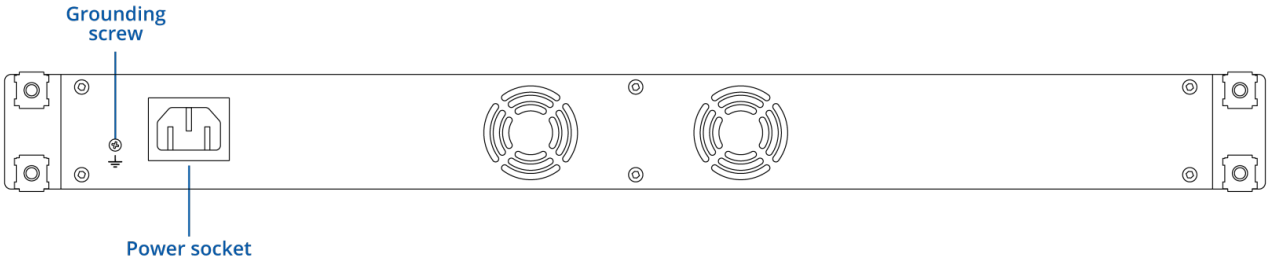
v1.02

HARDWARE

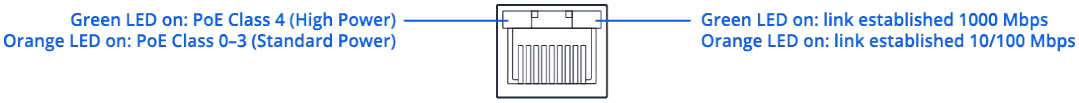
FRONT VIEW



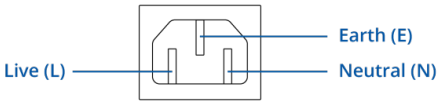
BACK VIEW



RJ45 LED meaning



POWER SOCKET PINOUT



FEATURES

Ethernet

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

INDUSTRIAL PROTOCOLS

Profinet	Profinet Class B conformance (available with optional order code)

Services

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

Network

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

QoS

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

Diagnostics

Tools	Cable diagnostic, ping, traceroute, nslookup
Ping reboot	Capability to restart PoE in a specific port

Security

Authentication	PAM — preshared key, Radius & TACACS+, IP & login attempts block
VLAN	Port VLAN separation
802.1x	Port-based network access control client and server
MAC filtering support	Allow specific MAC addresses to connect through specified ports, ignore unauthorized or disable the port if an unauthorized MAC address is detected

API

Teltonika Networks Web API (beta) support	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: https://developers.teltonika-networks.com

System Characteristics

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

Firmware / Configuration

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

FIRMWARE CUSTOMISATION

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

Performance Specifications

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

POE OUT

PoE+ ports	Port 1-12
PoE standards	IEEE 802.3af (PoE, Type 1) and IEEE 802.3at (PoE+, Type 2), Alternative A
PoE Max Power per Port (at PSE)	30 W
Total PoE Power Budget (at PSE)	300 W

Power

Connector	C14 connector
Input voltage range	100-240 VAC, 50/60 Hz
Power consumption	Idle: 7.5 W / Max: 325 W / PoE Max: 300

Physical Interfaces

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

Physical Specification

Casing material	Anodized aluminum housing and panels
Dimensions (W x H x D)	483 x 44 x 234 mm
Weight	1842 g
Mounting options	Rack mounting kit

Operating Environment

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

Regulatory & Type Approvals

Regulatory	CE, UKCA, CB, RCM, FCC, IC

ORDERING

STANDARD PACKAGE*

SWM280

QSG (QUICK START GUIDE)

- SWM280 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

SWM280 *****0 **PROFINET disabled by default**	N/A	SWM280000000 / Standard package
SWM280 *****1 **Profinet Class B conformance**	N/A	SWM280000001 / Standard package

For more information on all available packaging options – please contact us directly.

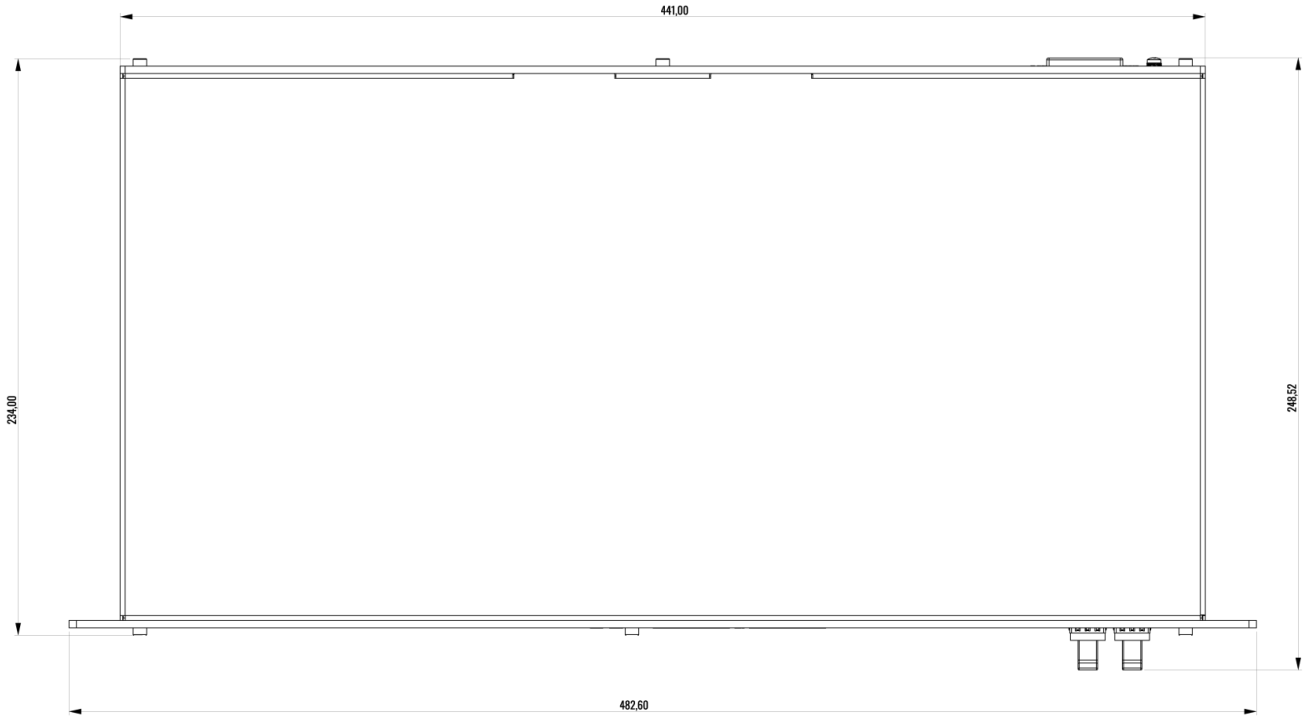
SWM280 SPATIAL MEASUREMENTS

PHYSICAL SPECIFICATION

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

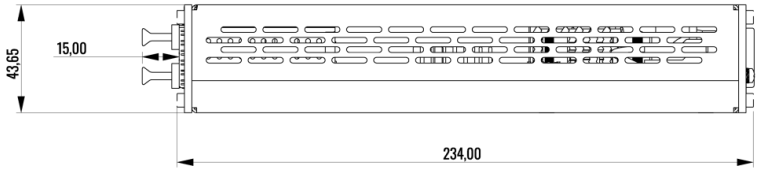
TOP VIEW

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



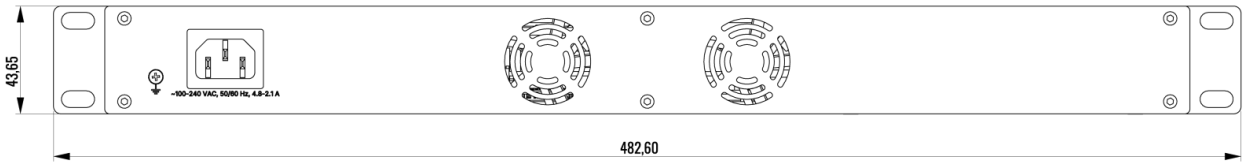
RIGHT VIEW

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

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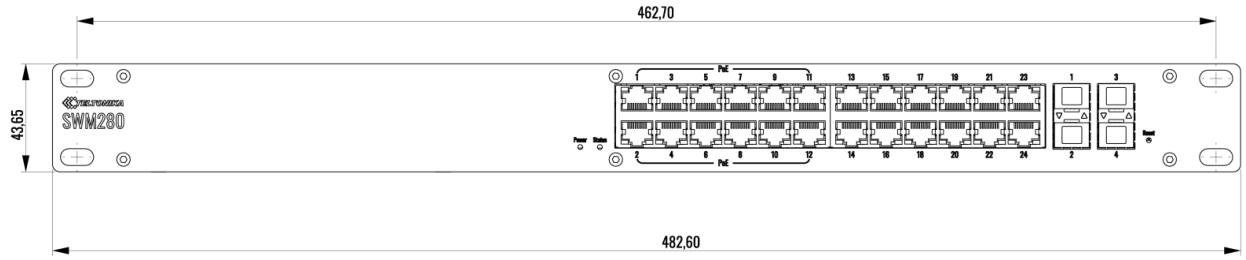
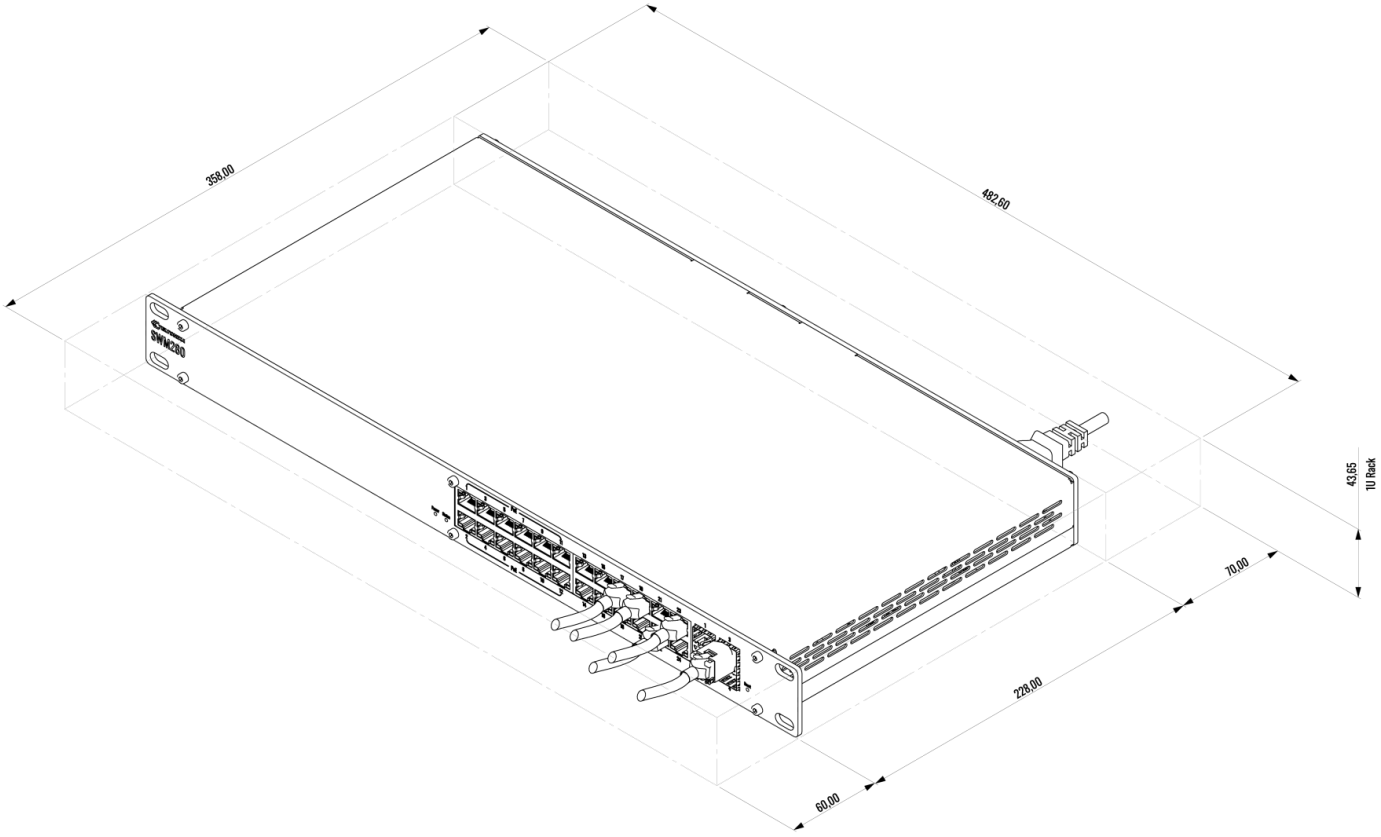


MOUNTING SPACE REQUIREMENTS

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



SWM281

SWM281 Gigabit Ethernet managed switch

Energy & utilities

Enterprise

Industrial & automation

Retail

Smart city

L2+

Advanced routing protocols & VLAN segmentation

HYBRID CONNECTIVITY

24 Gigabit Ethernet with 4 SFP ports for density and long-distance connectivity

CLOUD-ENABLED

Shipped with 2 years of RMS Management

PROTOCOLS

Profinet, MRP, and EtherNet/IP for mixed industrial environments

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

INDUSTRIAL PROTOCOLS	
Profinet	Profinet Class B conformance (available with optional order code)

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

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

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

Diagnostics	
Tools	Cable diagnostic, ping, traceroute, nslookup

Security	
Authentication	PAM — preshared key, Radius & TACACS+, IP & login attempts block
VLAN	Port VLAN separation
802.1x	Port-based network access control client and server
MAC filtering support	Allow specific MAC addresses to connect through specified ports, ignore unauthorized or disable the port if an unauthorized MAC address is detected

API	
Teltonika Networks Web API (beta) support	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: https://developers.teltonika-networks.com

System Characteristics	
CPU	Realtek, single core, 500MHz, MIPS-4KEc
RAM	128MB, DDR3
FLASH storage	16 MB serial flash

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

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

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

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

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

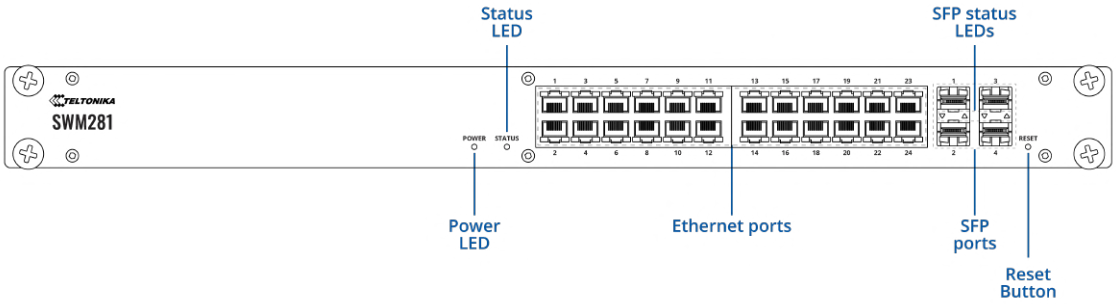
Physical Specification	
Casing material	Anodized aluminum housing and panels
Dimensions (W x H x D)	483 x 44 x 234 mm
Weight	1853 g
Mounting options	Rack mounting kit

Operating Environment	
Operating temperature	0 °C to 50 °C
Operating humidity	10% to 90% non-condensing
Ingress Protection Rating	IP30

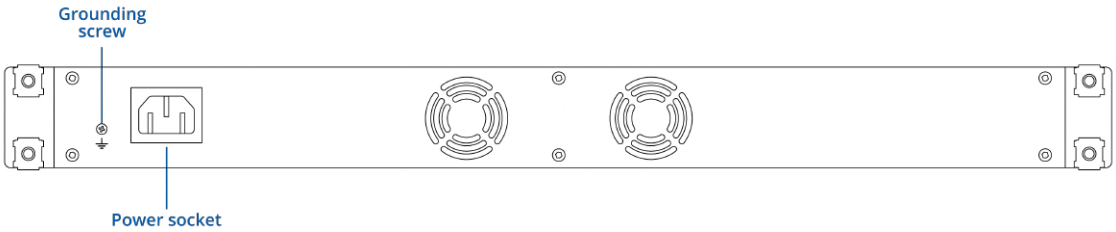
Regulatory & Type Approvals	
Regulatory	CE, UKCA, CB, RCM, FCC, IC

Hardware

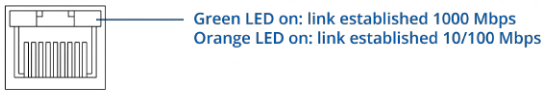
FRONT VIEW



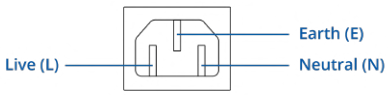
BACK VIEW



RJ45 LED MEANING



POWER SOCKET PINOUT



Ordering

Standard package*

SWM281

QUICK START GUIDE

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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 **PROFINET disabled by default**	N/A	SWM281000200 / Standard package without power cord SWM281000700 / Standard package with EU power cord SWM281000800 / Standard package with UK power cord SWM281000900 / Standard package with US power cord SWM281000A00 / Standard package with AU power cord
SWM281 *****1 **Profinet Class B conformance**	N/A	SWM281000201 / Standard package without power cord

SWM281 spatial measurements

Available versions

Box:	510 x 73 x 318 mm
Device housing (W x H x D)*	483 x 44 x 234 mm
	*Housing measurements are presented without antenna connectors and screws; for measurements of other device elements look to the sections below

TOP VIEW

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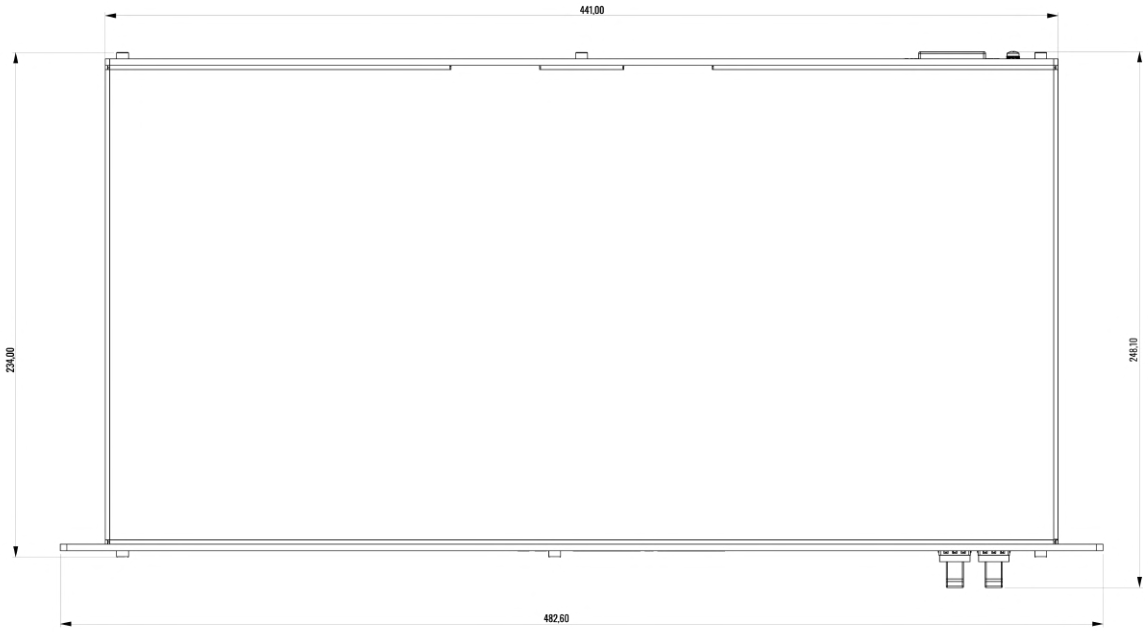

FRONT VIEW

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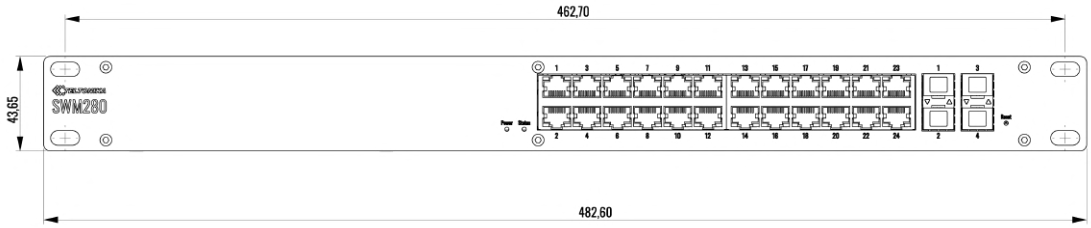

REAR VIEW

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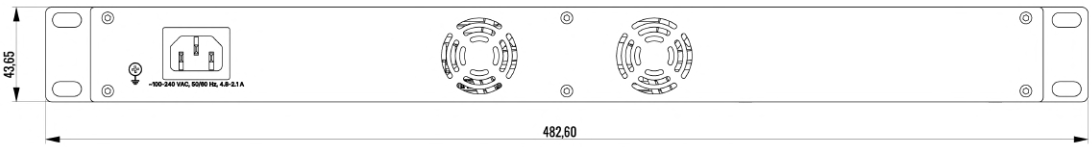

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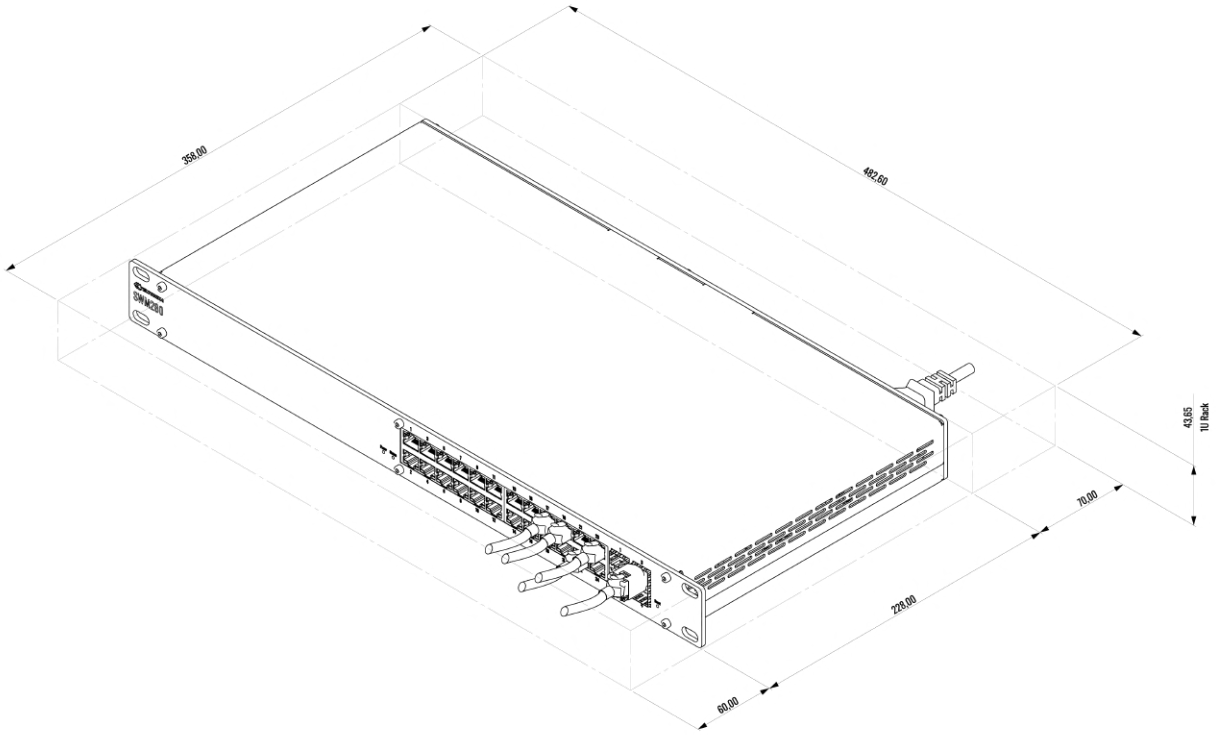

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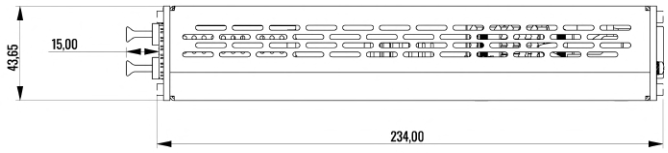

SWM282

SWM282 PoE+ managed switch

Energy & utilities

Enterprise

Industrial & automation

Retail

Smart city

POE+

Deliver power and data through 24 PoE+ ports with up to 30W per port

L2+

Advanced routing protocols & VLAN segmentation

CLOUD-ENABLED

Shipped with 2 years of RMS Management

PROTOCOLS

Profinet, MRP, and EtherNet/IP for mixed industrial environments

Ethernet	
Fiber	4 x SFP ports
IEEE 802.3 series standards	802.3i, 802.3u, 802.3ab, 802.3x, 802.3az
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EtherNet/IP	Yes
SNMP V2, V3	Yes
LLDP	Yes
Network Management	802.1p class of service, 802.1x port-based network access control, 802.1Q VLAN

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

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

Diagnostics	
Tools	Cable diagnostic, ping, traceroute, nslookup
Ping reboot	Capability to restart PoE in a specific port

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Forwarding rate	83.33 Mpps
Packet buffer	512 KB
MAC address table size	8K entries
Jumbo frame support	10000 bytes

POE OUT	
PoE+ ports	Ports 1-24
PoE standards	IEEE 802.3af (PoE, Type 1) and IEEE 802.3at (PoE+, Type 2), Alternative A
PoE Max Power per Port (at PSE)	30 W
Total PoE Power Budget (at PSE)	300 W

Power	
Connector	C14 connector
Input voltage range	100-240 VAC, 50/60 Hz
Power consumption	Idle: 9 W / Max: 330 W / PoE Max: 300

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

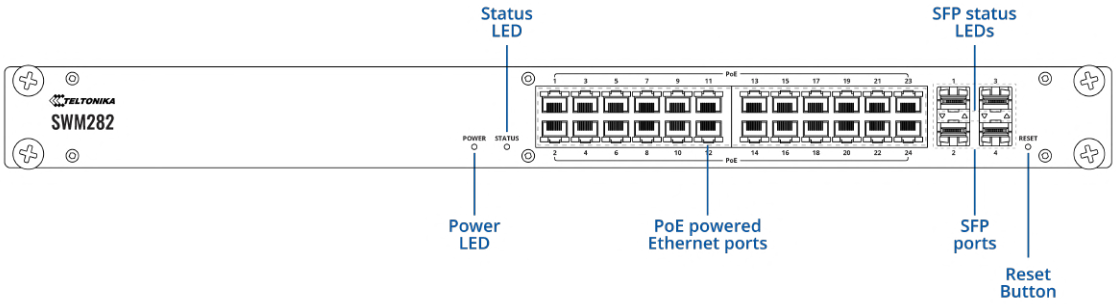
Physical Specification	
Casing material	Anodized aluminum housing and panels
Dimensions (W x H x D)	483 x 44 x 234 mm
Weight	2291 g
Mounting options	Rack mounting kit

Operating Environment	
Operating temperature	0 °C to 50 °C
Operating humidity	10% to 90% non-condensing
Ingress Protection Rating	IP30

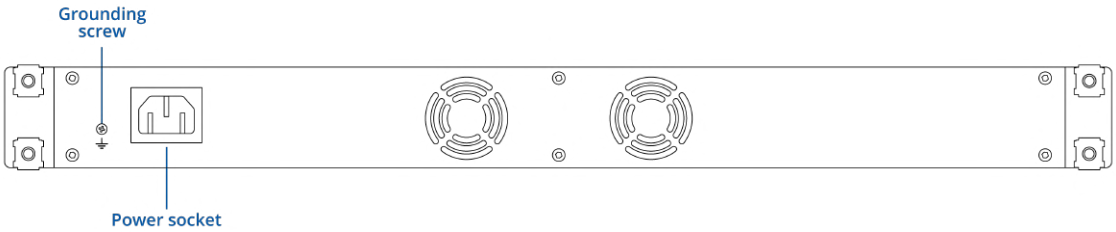
Regulatory & Type Approvals	
Regulatory	CE, UKCA, CB, RCM, FCC, IC

Hardware

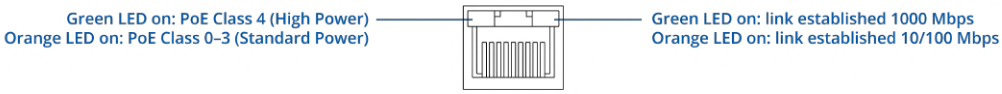
FRONT VIEW



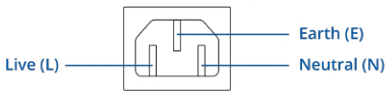
BACK VIEW



RJ45 LED MEANING



POWER SOCKET PINOUT



Ordering

Standard package*

SWM282

QUICK START GUIDE

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For more information on all available packaging options – please contact us directly.

Classification codes

HS Code: 851762

HTS: 8517.62.00

Available versions

SWM282 *****0 **PROFINET disabled by default**	N/A	SWM282000200 / Standard package without power cord SWM282000700 / Standard package with EU power cord SWM282000800 / Standard package with UK power cord SWM282000900 / Standard package with US power cord SWM282000A00 / Standard package with AU power cord
SWM282 *****1 **Profinet Class B conformance**	N/A	SWM282000201 / Standard package without power cord

SWM282 spatial measurements

Available versions

Box:	510 x 73 x 318 mm
Device housing (W x H x D)*	483 x 44 x 234 mm
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RIGHT VIEW

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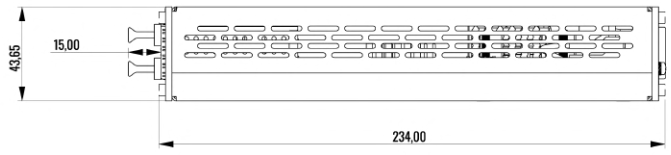
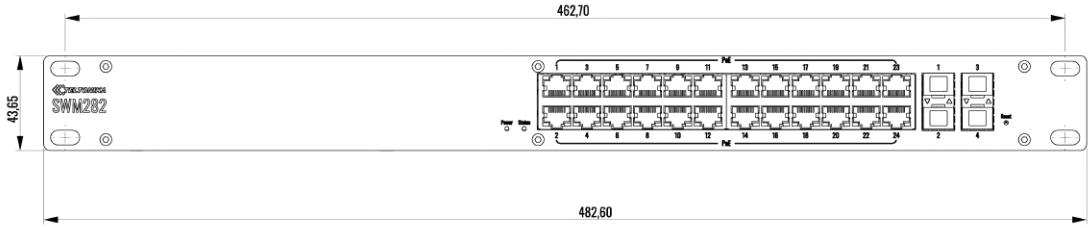


FRONT VIEW

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



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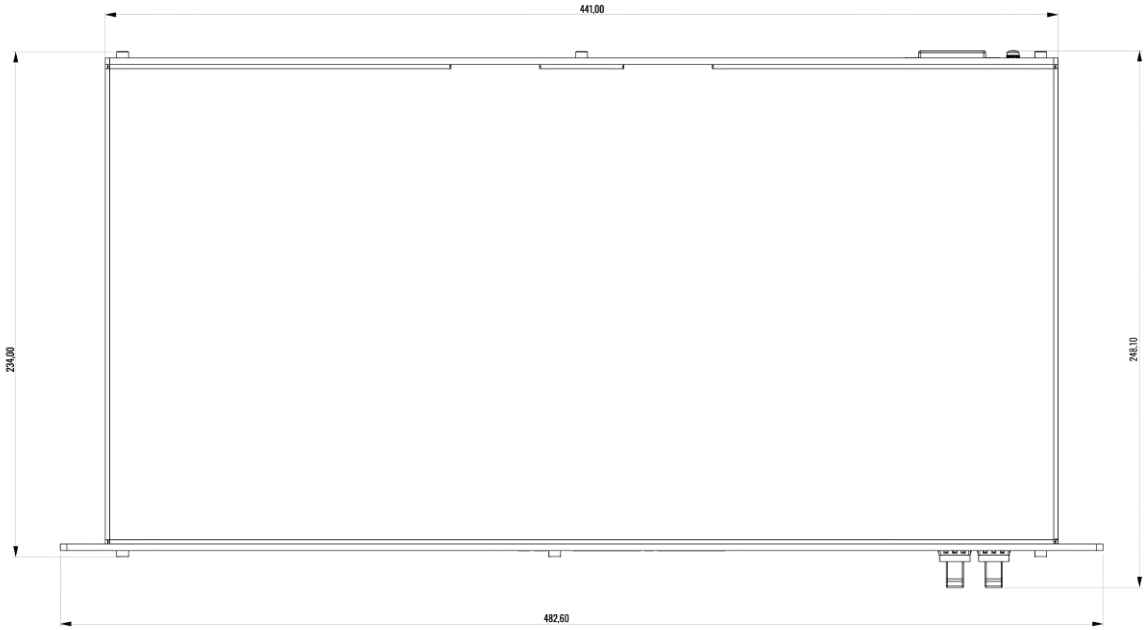
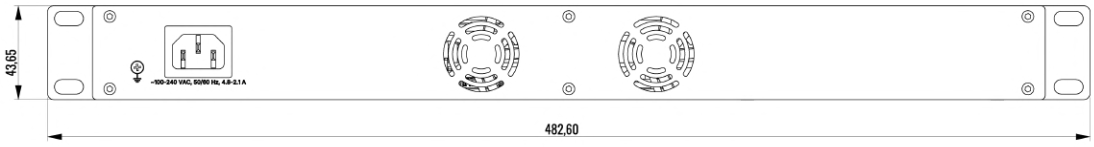


REAR VIEW

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



MOUNTING SPACE REQUIREMENTS

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