



TSW212

MANAGED ETHERNET SWITCH



Energy &
utilities



Enterprise



Industrial &
automation



Retail



Smart city

MANAGED SWITCH

L2 with additional L3 features for advanced management capabilities

PROFINET & MORE

Supports PROFINET for automated data processing alongside other protocols, like EtherNet/IP and MRP

ETHERNET & SFP

8 x Gigabit Ethernet ports and 2 x SFP ports for fiber optic communication

TSWOS

Teltonika Networks OS for switches, intuitively designed for infinite configurations

Ethernet

ETH	Multi-layer managed 8 x ETH ports, 10/100/1000 Mbps supports auto MDI/MDIX crossover
Fibre	2 x SFP ports
IEEE 802.3 series standards	802.3i, 802.3u, 802.3ab, 802.3x, 802.3az

INDUSTRIAL PROTOCOLS

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

MRP	MRP client role, MRP manager role
Port aggregation	802.3ad (LACP)
L2 features	Loop protection, Forwarding table, VLAN, STP/RSTP
DHCP	DHCP server, DHCP client, DHCP static leases capable of using MAC with wildcards
Multicast	IGMP snooping, multicast querier support
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
Routing	Dynamic routing (BGP, OSPF v2, RIP v1/v2, EIGRP)

Security

Authentication	PAM — preshared key, Radius & TACACS+, IP & login attempts block
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

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
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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
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System Characteristics

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

FIRMWARE CUSTOMISATION

Operating system	TSWOS (OpenWrt based Linux OS)
Supported languages	Busybox shell, Lua, C, C++
Development tools	SDK package with build environment provided

Performance Specifications

Bandwidth (Non-blocking)	20 Gbps
Forwarding rate	14.88 Mpps
Packet buffer	512 KB
MAC address table size	8K entries
Jumbo frame support	10000 bytes

Power

Connector	2-pin industrial DC power socket
Input voltage range	7 – 57 VDC, reverse polarity protection: -80Vmax
Power consumption	Idle: < 2.5 W / Max: 6 W
	Surge at AC mains power port**: 1kV Line to line; 2kV line to ground, 1.2/50us, IEC 61000-4-5 Surge at signal port (Ethernet): 1kV Line to Ground, 1.2/50us, IEC 61000-4-5
	** Tested with Teltonika's PSU. Test does not apply to direct DC power.

Physical Interfaces

Ethernet	8 x RJ45 ports, 10/100/1000 Mbps
Fibre	2 x SFP ports
Status LEDs	1 x Power LED, 1 x Aux LED, 16 x ETH status LEDs, 2 x SFP status LEDs
Power	1 x 2-pin industrial DC power socket
Reset	Software reset button
Other	1 x Grounding screw

Physical Specification

Casing material	Anodized aluminium housing and panels
Dimensions (W x H x D)	132 x 44.2 x 122.2 mm
Weight	615 g
Mounting options	Integrated DIN rail bracket; wall mount and flat surface (additional kit needed)

Operating Environment

Operating temperature	-40 °C to 75 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP30

Regulatory & Type Approvals

Regulatory	CE, UKCA, RCM, ANRT, FCC, IC, CB, WEEE, RoHS, REACH, SDPPI (POSTEL), JATE, Kenya, ICASA, Giteki, NBCT, ICASA, PROFINET, UL Safety, MTCTE
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EMC Emissions & Immunity

Standards	EN 55032:2015 + A11:2020 + A1:2020 EN 55035:2017 + A11:2020 EN IEC 61000-3-2: 2019 + A1:2021 EN 61000-3-3: 2013 + A1:2019 + A2:2021
ESD	EN 61000-4-2:2009
Radiated Immunity	EN IEC 61000-4-3:2020
EFT	EN 61000-4-4:2012
Surge Immunity (AC Mains Power Port)	EN 61000-4-5:2014 + A1:2017
CS	EN 61000-4-6:2014
DIP	EN 61000-4-11:2020

Safety

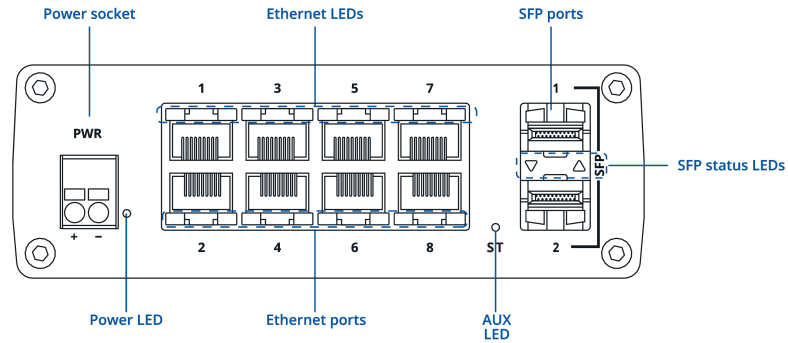
Standards	CE: EN IEC 62368-1:2020 + A11:2020
	RCM: AS/NZS 62368.1:2022
	CB: IEC 62368-1:2018

Safety (Ordinary Locations)

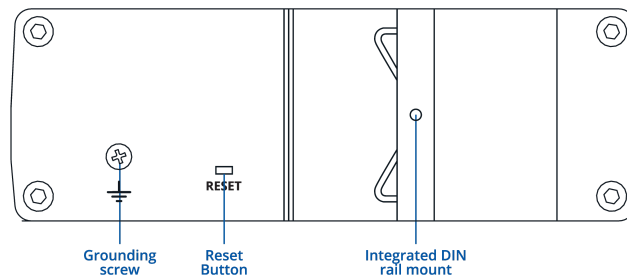
Standards	UL/CSA Safety: UL 62368-1 (3rd Ed., Rev. December 13, 2019), C22.2 No. 62368-1:19 (3rd Ed., Rev. December 13, 2019)
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Hardware

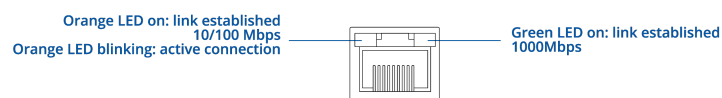
FRONT VIEW



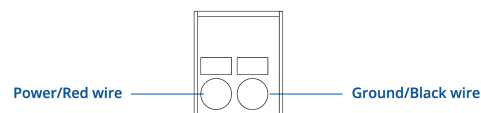
BACK VIEW



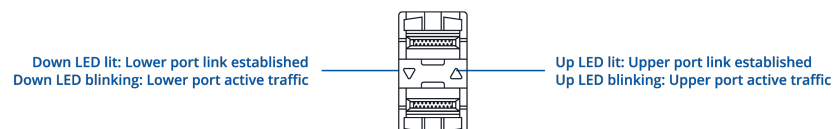
RJ45 LED MEANING



POWER SOCKET PINOUT



SFP LED MEANING



Ordering

Standard package*



TSW212



QUICK START GUIDE

*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

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

Available versions

Hardware version	Supported frequencies	Standard order code / Package Contains
TSW212 *****0 PROFINET disabled by default	N/A	TSW212000000 / Standard package withouth PSU TSW212000300 / Standard Package with EU PSU without connector
TSW212 *****1 Profinet Class B conformance	N/A	TSW212000001 / Standard package withouth PSU

TSW212 spatial measurements

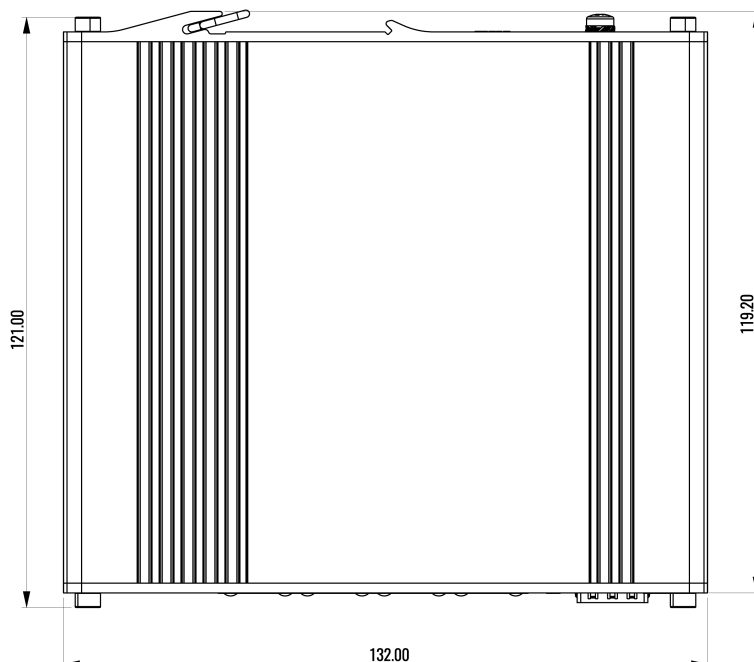
Available versions

Device housing (W x H x D)*	132 x 44.2 x 122.2 mm
Box:	132 x 45 x 122 mm

*Housing measurements are presented without antenna connectors and screws; for measurements of other device elements look to the sections below

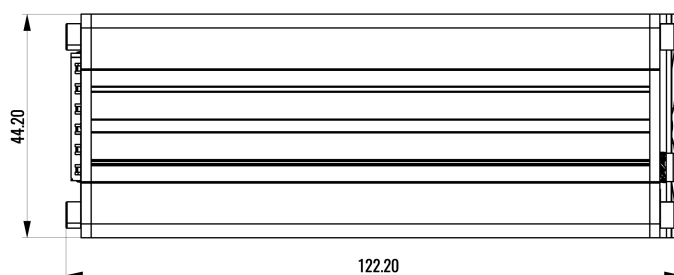
TOP VIEW

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



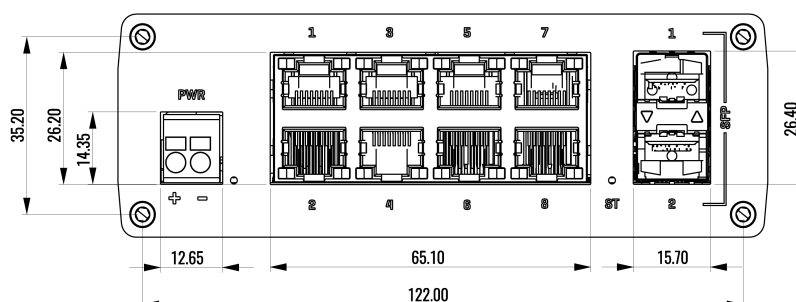
RIGHT VIEW

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



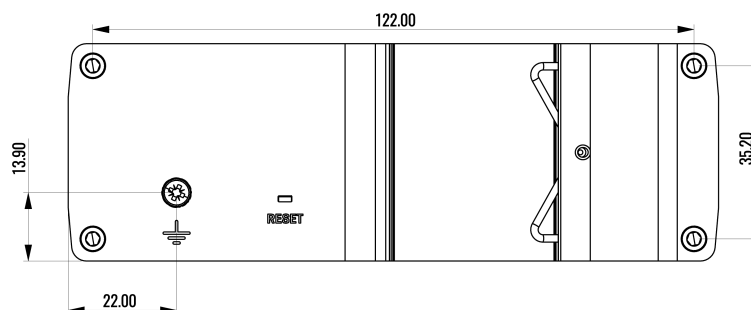
FRONT VIEW

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



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:

