

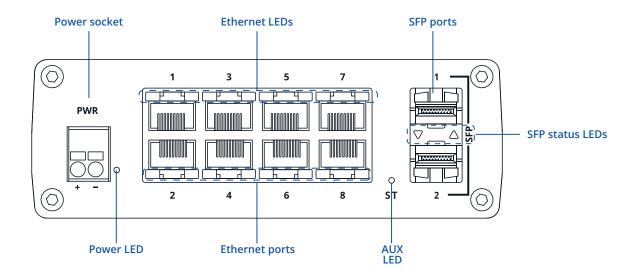
# TSW212



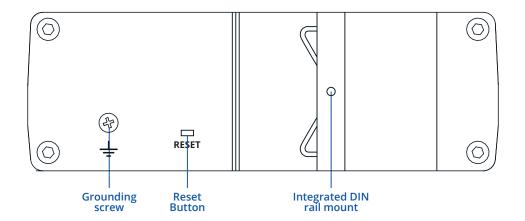


## **HARDWARE**

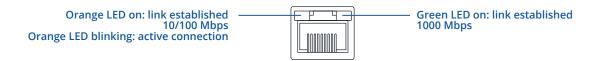
#### **FRONT VIEW**



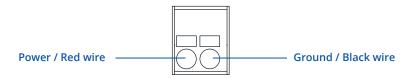
#### **BACK VIEW**



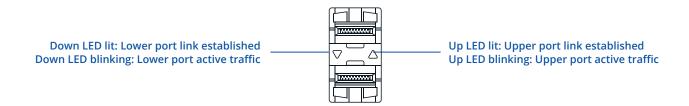
#### **RJ45 LED MEANING**



## **POWER SOCKET PINOUT**



#### SFP LED MEANING





# **FEATURES**

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	IEEE 802.1p, IEEE 802.1Q, 802.3az
SERVICES	
EtherNet/IP	Yes
Profinet (class B)	Yes
SNMP V2, V3	Yes
LLDP	Yes
NETWORK	
MRP	MRP client role, MRP manager role
L2 features	Loop protection, Forwarding table, VLAN, STP/RSTP
DHCP	DHCP server, DHCP client
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
SYSTEM CHARACTERISTICS	
3131EW CHARACTERISTICS	
RAM	128MB, DDR3
	128MB, DDR3  16 MB serial flash
RAM	16 MB serial flash
RAM FLASH storage	16 MB serial flash
RAM  FLASH storage  FIRMWARE / CONFIGURATION	16 MB serial flash
RAM  FLASH storage  FIRMWARE / CONFIGURATION  WEB UI	16 MB serial flash  ON  Update FW from file, check FW on server, configuration profiles, configuration backup
RAM FLASH storage FIRMWARE / CONFIGURATION WEB UI FOTA	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW
RAM  FLASH storage  FIRMWARE / CONFIGURATION  WEB UI  FOTA  RMS	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration
RAM  FLASH storage  FIRMWARE / CONFIGURATION  WEB UI  FOTA  RMS  Keep settings	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration
RAM  FLASH storage  FIRMWARE / CONFIGURATION  WEB UI  FOTA  RMS  Keep settings  FIRMWARE CUSTOMISATION	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration
RAM  FLASH storage  FIRMWARE / CONFIGURATION WEB UI  FOTA  RMS  Keep settings  FIRMWARE CUSTOMISATION Operating system	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration  N  TSWOS (OpenWrt based Linux OS)
RAM  FLASH storage  FIRMWARE / CONFIGURATION  WEB UI  FOTA  RMS  Keep settings  FIRMWARE CUSTOMISATION  Operating system  Supported languages	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration  N  TSWOS (OpenWrt based Linux OS)  Busybox shell, Lua, C, C++  SDK package with build environment provided
RAM  FLASH storage  FIRMWARE / CONFIGURATION  WEB UI  FOTA  RMS  Keep settings  FIRMWARE CUSTOMISATION  Operating system  Supported languages  Development tools	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration  N  TSWOS (OpenWrt based Linux OS)  Busybox shell, Lua, C, C++  SDK package with build environment provided
FLASH storage  FIRMWARE / CONFIGURATION WEB UI  FOTA  RMS  Keep settings  FIRMWARE CUSTOMISATION Operating system Supported languages Development tools  PERFORMANCE SPECIFICATION	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration  N  TSWOS (OpenWrt based Linux OS)  Busybox shell, Lua, C, C++  SDK package with build environment provided
FLASH storage  FIRMWARE / CONFIGURATION WEB UI  FOTA  RMS  Keep settings  FIRMWARE CUSTOMISATION Operating system Supported languages Development tools  PERFORMANCE SPECIFICATION Bandwidth (Non-blocking)	16 MB serial flash  DN  Update FW from file, check FW on server, configuration profiles, configuration backup  Update FW  Update FW/configuration for multiple devices at once  Update FW without losing current configuration  N  TSWOS (OpenWrt based Linux OS)  Busybox shell, Lua, C, C++  SDK package with build environment provided  IONS  20 Gbps

10000 bytes

Jumbo frame support



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Connector	2-pin industrial DC power socket
Input voltage range	7 - 57 VDC
Power consumption	Idle: < 2.5 W / Max: 6 W

#### 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
Grounding	1 x Grounding screw

#### PHYSICAL SPECIFICATION

Casing material	Anodized aluminum 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 mounting (additional kit needed), flat surface placement

#### **OPERATING ENVIRONMENT**

Operating temperature	-40 °C to 75 °C
Operating humidity	10 % to 90 % non-condensing
Ingress Protection Rating	IP30

#### **REGULATORY & TYPE APPROVALS**

Regulatory CE, UKCA, RCM, ANRT, FCC, IC, CB, RoHS, REACH

## **EMC EMISSIONS & IMMUNITY**

Standards	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

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

EN 55032:2015 + A11:2020 + A1:2020



# **STANDARD PACKAGE\***

- TSW212
- QSG (Quick Start Guide)
- Packaging box



<sup>\*</sup> Standard package contents may differ based on standard order codes.

# **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 \*\*\*\*\*\* N/A TSW212000000 / Standard package



# **TSW212 SPATIAL MEASUREMENTS**

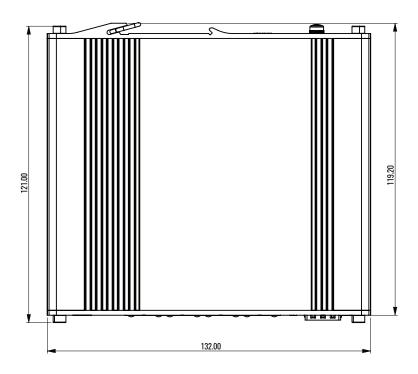
#### MAIN MEASUREMENTS

W x H x D dimensions for TSW212:

Device housing\*: 132 x 44.2 x 122.2 mm Box: 125 x 136 x 47 mm

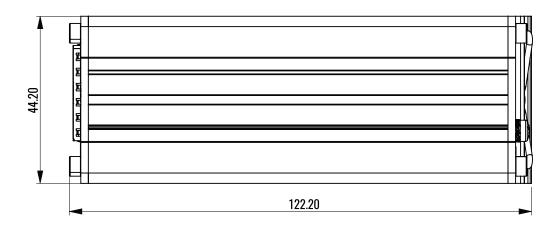
#### **TOP VIEW**

The figure below depicts the measurements of TSW212 and its components as seen from the top:



## **RIGHT VIEW**

The figure below depicts the measurements of TSW212 and its components as seen from the right side:  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}$ 

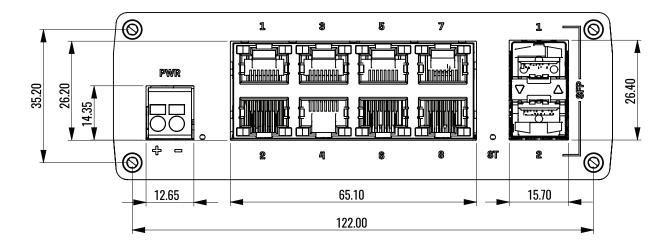


<sup>\*</sup>Housing measurements are presented without screws; for measurements of other device elements look to the sections below.



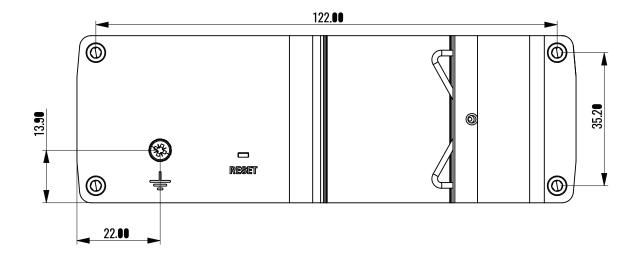
#### **FRONT VIEW**

The figure below depicts the measurements of TSW212 and its components as seen from the front panel side:  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left$ 



## **REAR VIEW**

The figure below depicts the measurements of TSW212 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 are attached:

