



24-Port 10/100 Mbps Web Smart PoE+ Switch TPE-224WS (C1.0R)

- 24 x 10/100 Mbps PoE ports
- Ports 1-4 support PoE+ (30 Watts/port)
- 4 x Gigabit ports
- 2 x shared SFP slots
- 193 Watts PoE budget
- 12.8 Gbps switching capacity
- Rack mountable
- Smart fans reduce energy consumption

TRENDnet's 24-Port 10/100 Mbps Web Smart PoE+ Switch, model TPE-224WS, offers 24 x 10/100 Mbps PoE ports (Ports 1-4 support PoE+), 4 x Gigabit ports, 2 x shared SFP slots, and a PoE Power budget of 193 Watts. This IPv6 ready switch offers advanced traffic management, troubleshooting, access control, energy saving GREENnet, and monitoring features at a reduced cost.



Hardware Design

Provides 24 x 10/100 Mbps PoE ports (Ports 1-4 support PoE+), 4 x Gigabit ports, 2 x shared SFP slots, a PoE Power budget of 193 Watts, and includes rackmount brackets



Smart Fan

Smart fan saves energy by varying fan speed and use based on cooling needs



IPv6 Ready

This switch supports IPv6 configuration and IPv6 neighbor discovery



Traffic Management

A broad range of network configurations are supported by: 802.3ad link aggregation, Asymmetric VLAN, 802.1Q VLAN, Voice VLAN, Private VLAN, Bandwidth Controls, GVRP, IGMP v1-v3, 802.1p Class of Service (CoS), Spanning Tree (STP, RSTP, and MSTP), and QoS queue scheduling



Troubleshooting

Real time traffic comparison charts, error group charts, and a convenient cable diagnostic test aid in rapid troubleshooting



Access Controls

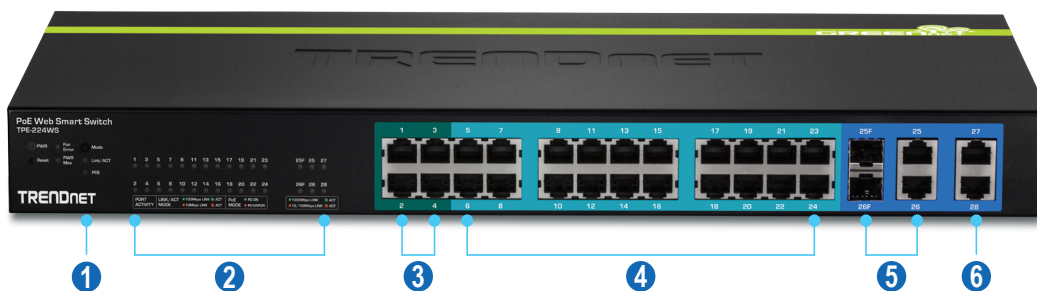
Features such as ACL, SSL, MAC/port filtering, Denial of Service controls, 802.1X, TACACS+, and RADIUS are compatible with layered network access controls



Monitoring

RMON, SNMP, SNMP Trap, and Port Mirroring support administrator monitoring solutions

Networking Solution



① PoE/connectivity LED toggle

② LED indicators

③ PoE+ 10/100 Mbps ports

④ PoE 10/100 Mbps ports

⑤ Shared SFP/Gigabit ports

⑥ Gigabit ports

Specifications

Standards

- IEEE 802.1d
- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.1s
- IEEE 802.1w
- IEEE 802.1X
- IEEE 802.1ab
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3z
- IEEE 802.3ab
- IEEE 802.3ad
- IEEE 802.3af (15.4 Watts/port)
- IEEE 802.3at (30 Watts/port)
- IEEE 802.3az

Device Interface

- 24 x 10/100 Mbps PoE ports (ports 1-4 PoE+, ports 5-24 PoE)
- 4 x Gigabit ports (ports 25-28)
- 2 x Shared SFP slots (shared with ports 25-26)
- LED indicators
- LED Display Mode Button (Toggles LED indicators to display Link/Activity or PoE only port status)
- Reset Button

Data Transfer Rate

- Ethernet: 10 Mbps (half duplex), 20 Mbps (full duplex)
- Fast Ethernet: 100 Mbps (half duplex), 200 Mbps (full duplex)
- Gigabit Ethernet: 2000 Mbps (full duplex)

Performance

- Switch fabric: 12.8 Gbps
- Ram buffer: 0.5 MB
- MAC Address Table: 8 K entries
- HOL Blocking Prevention
- Forwarding rates: 9.5 Mpps (64-byte packet size)

Management

- HTTP/HTTPS (SSL v2/3 TLS) Web based GUI
- SNMP v1, v2c, v3
- RMON v1
- Static Unicast MAC Address

- Enable/disable 802.3az Power Saving
- LLDP
- Virtual Cable Test
- IPv6: IPv6 Neighbor Discovery, IPv6 Static IP, DHCPv6, Auto configuration

MIB

- MIB II RFC 1213
- Bridge MIB RFC 1493
- Bridge MIB Extension RFC 2674
- SNMPv2 MIB RFC 1907
- Ethernet Interface MIB RFC 1643
- Ethernet -like MIB RFC 2863
- Interface Group MIB RFC 2233
- MIB Traps Convention RFC 1215
- RMON MIB RFC 1757, RFC 2819
- 802.1p MIB RFC 2674
- RADIUS Client Authentication MIB RFC 2618
- LLDP-MIB IEEE 802.1ab
- Ping MIB RFC 2925, RFC 4560

Spanning Tree

- IEEE 802.1D STP (Spanning Tree protocol)
- IEEE 802.1w RSTP (Rapid Spanning Tree protocol)
- IEEE 802.1s MSTP (Multiple Spanning Tree protocol)

Link Aggregation

- Static Link Aggregation
- 802.3ad Dynamic LACP

Quality of Service (QoS)

- 802.1p Class of Service (CoS)
- DSCP (Differentiated Services Code Point)
- Bandwidth Control per port
- Queue Scheduling: Strict Priority, Weighted Round Robin (WRR)

VLAN

- Multiple management VLAN assignment
- Asymmetric VLAN
- 802.1Q Tagged VLAN
- Dynamic GVRP
- Up to 256 VLAN groups, ID Range 1-4094
- Private VLAN (Protected Ports)
- Voice VLAN (10 user defined OUIs)

Multicast

- IGMP Snooping v1, v2, v3 (per VLAN)
- Static Multicast Address
- Up to 256 multicast entries

Port Mirror

- RX, TX, or Both
- One-to-one
- Many-to-one

Access Control

- 802.1X Port-Based Network Access Control, RADIUS, TACACS+
- Local Dial In User Authentication
- DHCP Snooping (per VLAN)
- Loopback Detection
- Duplicated Address Detection
- Denial of Service (DoS)

ACL IPv4 L2-L4 & IPv6

- MAC Address
- VLAN ID
- Ether Type (IPv4 only)
- IP Protocol 0-255
- TCP/UDP Port 1-65535
- 802.1p
- DSCP (IPv4 only)
- IPv6 Address (IPv6 only)

Compatibility

- Optional Software Utility: Windows® 8, 7, Vista, XP, Windows® 2003/2008 Server

Special Features

- PoE+ (ports 1-4)
- IPv6
- 802.3az power saving
- Rack mountable

Power

- Input: 100 - 240 V AC, 50/60 Hz, internal power supply
- Consumption: 239.7 Watts (max.)

PoE

- PoE budget: 193 Watts
- Pin 3,6 for power+ and pin 1,2 for power- (mode A)

Specifications

Fan/Acoustics

- Smart fans turn on when needed
- Quantity: 2
- Noise Level: 54 dB(A) (max.)

MTBF

- 281,394 hours

Operating Temperature

- -5 – 50 °C (23 – 122 °F)

Operating Humidity

- Max. 90% non-condensing

Dimensions

- 440 x 210 x 44.45 mm (17.3 x 8.27 x 1.75 in.)
- Rack mountable 1U height

Weight

- 3.23 kg (7.12 lbs.)

Certifications

- CE
- FCC

Warranty

- 3 year limited

Package Contents

- TPE-224WS
- Multi Language Quick Installation Guide
- CD-ROM (Utility & User's Guide)
- Power cord (1.8 m/6 ft.)
- Rack mount hardware

