

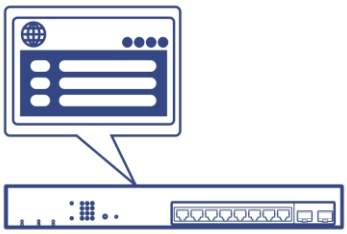
10-Port Gigabit Web Smart PoE+ Switch

TPE-1021WS (v1.0R)

- 8 x Gigabit PoE+ ports
- 2 x SFP slots
- 130W PoE power budget
- Easy-to-use web-based management interface
- PoE alive check automatically attempts to recover an unresponsive PoE device connected
- Remote cloud management with TRENDnet Hive (Additional fee applies)
- Supports IPv6, LACP, VLAN, QoS, and IGMP/MLD Snooping
- IPv4/IPv6 Static Routing support
- Bandwidth control per port
- Private, Multicast, and Voice VLAN support
- IEEE 802.1p QoS with queue scheduling support
- 20Gbps switching capacity

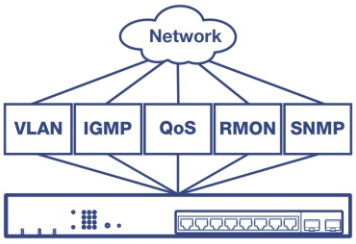
TRENDnet's Gigabit Web Smart PoE+ Switch series offers advanced L2+ features with enhanced traffic management controls to meet the evolving demands of SMB networks. This rack mountable IPv6-ready managed switch comes with an intuitive web-based interface. Advanced managed switch features include LACP to increase bandwidth between switches by grouping ports together, VLANs for segmenting and isolating virtual LAN groups, QoS for traffic prioritization, port bandwidth controls, and SNMP monitoring, making this a powerful solution for any SMB network. Improve voice performance by isolating and prioritizing VoIP traffic from normal data traffic with an easy-to-use voice VLAN feature.

Easily manage and configure TRENDnet's Web Smart PoE+ Managed Switch Series remotely by updating switches to the latest firmware for access to TRENDnet Hive. TRENDnet Hive is a network cloud manager that reduces management time and cost. No additional hardware, server, or personal cloud is required with TRENDnet's reliable cloud service.



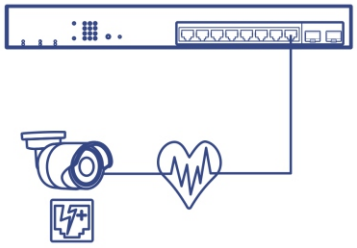
Web Smart Management

Provides an easy-to-use web-based management interface for reduced switch configuration complexity and offers a combination of SMB management features for easy deployment.



Integration Flexibility

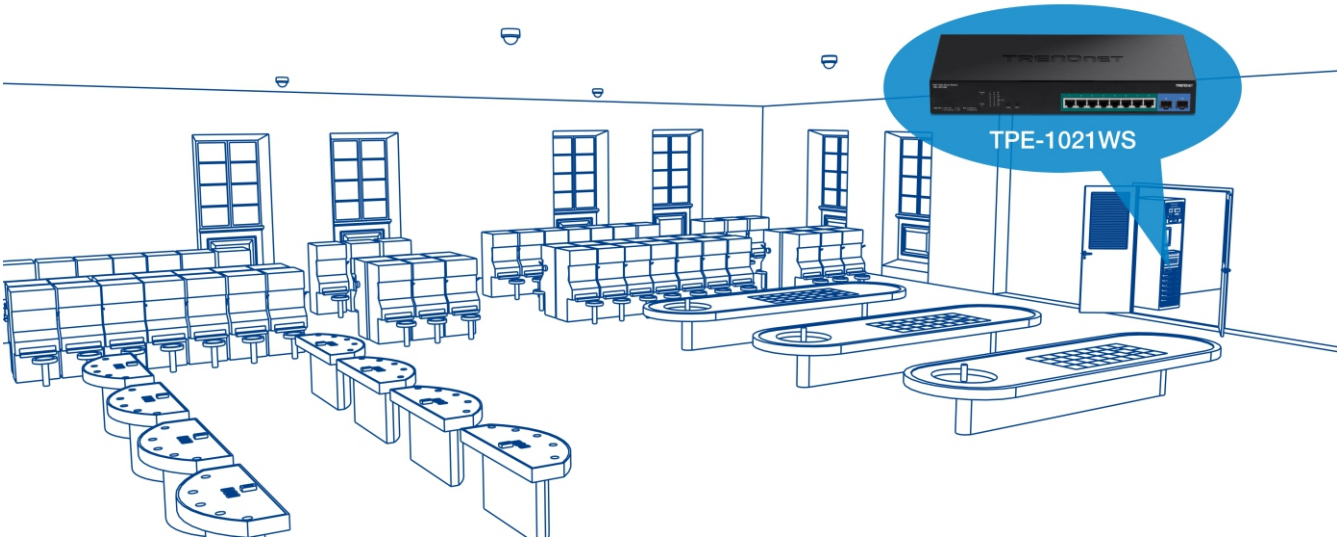
Managed switch features include access control lists, VLAN, IGMP/MLD snooping, QoS, RMON, SNMP trap, and syslog for monitoring and flexible network integration.



PoE Device Alive Check

PD alive check is an automated PoE self-healing switch feature. If a PoE device becomes unresponsive, the switch will auto-reboot the affected PoE port in an attempt to recover the device.

NETWORKING SOLUTION



FEATURES

Hardware Design
Provides 8 Gigabit PoE+ ports, 2 SFP slots, a 20Gbps switching capacity, and 1U 19” rackmount design with brackets included

PoE Power
The 130W total PoE power budget on this PoE managed switch supplies 8 Power over Ethernet devices with up to 30W per port

Hive Enabled
Remotely manage, configure, and diagnose this web smart switch via TRENDnet’s cloud service (Additional fee applies)

IPv6 Ready
This managed switch supports IPv6 configuration and IPv6 neighbor discovery

Traffic Management
Managed switch features include: Link aggregation, 802.1Q VLAN, Voice VLAN, Multicast VLAN, RSTP, MSTP, Loopback Detection, QoS, and port bandwidth management

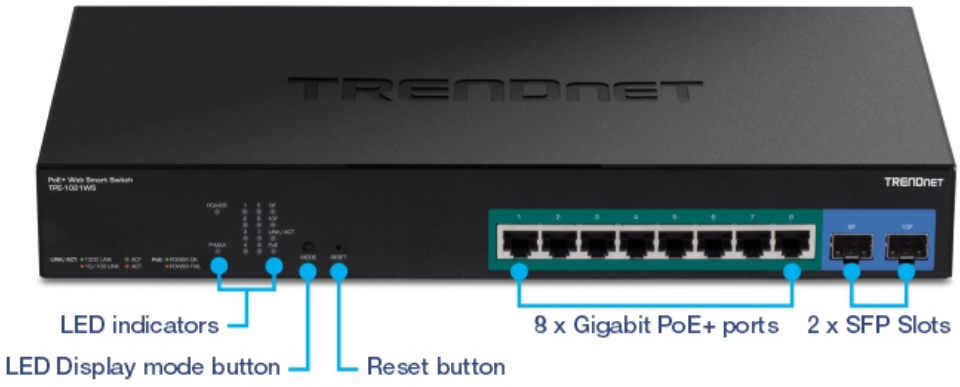
IP Routing
Offload routing processes to the managed switch by using the L2+ IPv4/IPv6 static routing feature to efficiently route traffic at the switch level

Dynamic ARP Inspection
Dynamic ARP inspection feature helps protect connected devices from man-in-the-middle attacks by discarding malicious and invalid ARP packets

Troubleshooting
A convenient cable diagnostic test and traffic statistics aid in network troubleshooting

Access Control
Includes ACL, SSL, MAC/port filtering, 802.1X, TACACS+, and RADIUS

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





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
- IEEE 802.3at
- IEEE 802.3az

Device Interface

- 8 x Gigabit PoE+ ports
- 2 x SFP Slots
- LED indicators
- LED Display mode button (toggles LED indicators to display link/activity or PoE only port status)

Data Transfer Rate

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

Performance

- Switch fabric: 20Gbps
- RAM buffer: 4.1MB
- MAC Address Table: 8K entries
- Jumbo Frames: 10KB
- HOL Blocking Prevention
- Forwarding rate: 14.9Mpps (64-byte packet size)

Management

- CLI (Telnet / SSHv2) for basic administration
- 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 and LLDP-MED
- Virtual Cable Diagnostics Test
- IPv6: IPv6 Neighbor Discovery, IPv6 Static IP, DHCPv6, Auto configuration
- Dual image and configuration
- TC Root/Protect
- DHCP relay/option 82

MIB

- IP Forward Table MIB RFC 1354
- RMON MIB RFC 1271
- IPv4 MIB RFC 1213
- IPv6 MIB RFC 2465
- GVRP MIB IEEE 802.1Q-VLAN
- LA MIB IEEE 802.3ad
- LLDP MIB IEEE 802.1ab
- IGMP Snooping MIB RFC 2933
- MLD Snooping MIB RFC 3019
- Private VLAN MIB IEEE 802.1Q
- DHCP SNOOP MIB RFC 2026
- QoS MIB RFC 4323
- SNMP MIB RFC 3415
- STP MIB RFC 4318
- PNAC MIB IEEE 802.1x
- VLAN MIB IEEE 802.1q
- DNS MIB RFC 1611
- ACL MIB
- Bandwidth CTRL MIB
- LBD MIB
- Mirror MIB
- IPv6 NEIGHBOR MIB
- SNTP MIB
- Storm CTRL MIB
- Statistics MIB
- Tool MIB
- Voice VLAN MIB
- DoS MIB

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
- MAC-based VLAN
- Protocol-based VLAN
- 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)
- MLD Snooping v1, v2
- IGMP fast leave
- MVR (Multicast VLAN Registration)
- Static Multicast Address
- Up to 256 multicast entries

Port Mirror

- RX, TX, or Both
- Many to one

Access Control

- 802.1X Port-Based Network Access Control, RADIUS, TACACS+
- Local Dial-In User Authentication
- DHCP Snooping
- Loopback Detection
- Duplicated Address Detection
- Trusted Host
- Denial of Service (DoS)
- IP MAC port binding
- Dynamic ARP inspection
- Block unknown multicast

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)

Layer 3 Features

- IPv4 / IPv6 static routing
- IP interfaces: Up to 6
- Routing table entries: Up to 32 (IPv4 / IPv6)
- ARP table (up to 128 entries)
- Inter-VLAN routing

Compatibility

- Optional Software Utility: Windows® 10, 8.1, 8, 7, Vista, XP, Windows® 2003/2008 Server

Power
- Input: 100 – 240V AC, 50/60Hz, internal power supply
- Max. consumption: 152.3W
- Max consumption (No PoE Load):

PoE
- Power Budget: 130W
- 802.3at: Up to 30W per port
- PoE Mode A: Pins 1, 2, 3, and 6 for power
- PoE auto/manual classification
- PoE port priority/power scheduling

Fan/Acoustics
- Fanless

MTBF
- 590,929 hours

Operating Temperature
- -5° – 50° C (23° – 122° F)

Operating Humidity
- Max. 90% non-condensing

Dimensions
- 330 x 180 x 44mm (12.99 x 7.08 x 1.74 in.)
- Rack mountable 1U height

Weight
- 1.76kg (3.88 lbs.)

Certifications
- CE
- FCC
- UL

Warranty
- 3-year

Package Contents
- TPE-1021WS
- Quick Installation Guide
- Power cord (1.8m/6 ft.)
- Rack mount kit

All references to speed are for comparison purposes only. Product specifications, size, and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.

20675 Manhattan Place • Torrance • CA 90501 • USA • T: 1-888-326-6061 • F: 1-310-961-5511 • intlsales@trendnet.com • www.TRENDnet.com

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