



## 20-Port Gigabit Web Smart 370W PoE+ Switch

TPE-1620WSF (v1.5R)

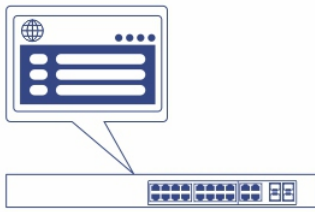
- 16 x Gigabit PoE+ ports
- 4 x Shared Gigabit ports (RJ-45 or SFP)
- 370W PoE power budget
- Easy-to-use web-based management interface
- PoE alive check automatically attempts to recover an unresponsive PoE device connected
- Remote cloud management with TRENDnet Hive (Additional fee applies)
- Supports IPv6, LACP, VLAN, QoS, and IGMP/MLD Snooping
- IPv4/IPv6 Static Routing support
- Bandwidth control per port
- Private, Multicast, and Voice VLAN support
- Smart Fans
- 40Gbps switching capacity
- IEEE 802.1p QoS with queue scheduling support

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.

Free up router resources by offloading routing processes to this managed switch by using the L2+ IPv4/IPv6 static routing feature to efficiently route traffic at the switch level. The dynamic ARP inspection feature helps protect connected devices from man-in-the-middle attacks by discarding malicious and invalid ARP packets. Take advantage of the available multicast and IGMP/MLD snooping features to optimize IP surveillance system performance, and minimize network traffic. TRENDnet's web smart managed switches also feature SFP slots to support long-distance fiber networking applications.

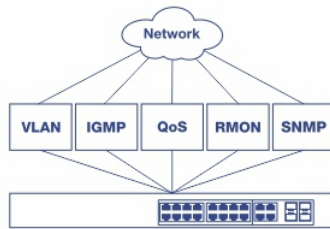
Installers and integrators can save on equipment costs and reduce installation time with TRENDnet's Web Smart PoE+ Managed Switches by delivering up to 30W per port of PoE power and data over existing Ethernet cables. With PoE technology, users only need one set of cables to deliver both data and power. With this PoE+ managed switch, network PoE devices, such as high-power wireless access points, PTZ and other advanced IP cameras, VoIP phone systems, IPTV decoders, access controls, and more.

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 on these cloud managed switches with TRENDnet's reliable cloud service.



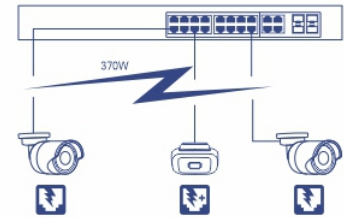
### Web Smart Management

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

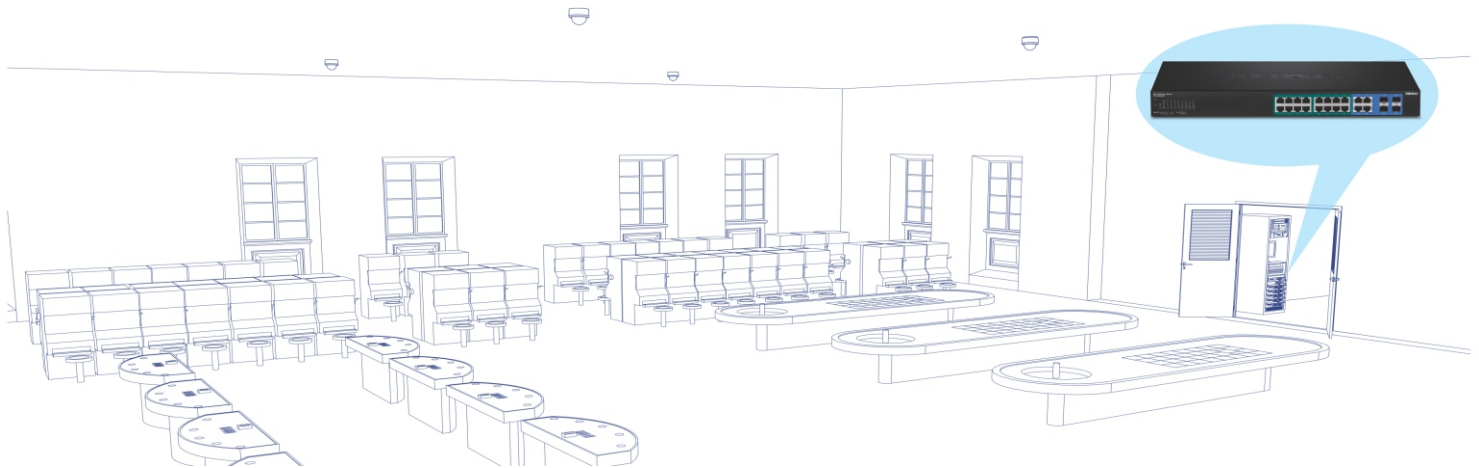
Managed switch features include access control lists, VLAN, IGMP/MLD snooping, QoS, RMON, SNMP trap, and syslog for monitoring and flexible network integration.



### PoE Power

The 370W total PoE power budget on this high-power PoE managed switch supplies 16 Power over Ethernet devices with up to 30W per port.

## NETWORKING SOLUTION



LED indicators

16 x Gigabit PoE+ ports

4 x Shared Gigabit ports (RJ-45/SFP)

## FEATURES



### Hardware Design

Provides 16 gigabit PoE+ ports, 4 shared gigabit ports (RJ-45 or SFP), a 40Gbps switching capacity, and 1U 19" rackmount design with brackets included



### PoE Power

The 370W total PoE power budget on this high-power PoE managed switch supplies 16 Power over Ethernet devices with up to 30W per port



### IPv6 Ready

This managed switch supports IPv6 configuration and IPv6 neighbor discovery



### Hive Enabled

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



### 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



### Smart Fans

Smart fans save energy by auto-adjusting the fan speed and use based on cooling needs

## 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

- 16 x Gigabit PoE+ ports
- 4 x Gigabit shared ports (RJ-45 or SFP)
- 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)

### Performance

- Switch fabric: 40Gbps
- RAM buffer: 512KB
- MAC Address Table: 8K entries
- Jumbo Frames: 10KB
- HOL Blocking Prevention
- Forwarding rate: 29.8Mpps (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

### Hive Cloud Management

- Configure, monitor, and manage through the TRENDnet Hive Cloud Management Portal remotely via PC or Mac web browser
- Multi-device management
- Provisioning through scheduled batch firmware or configuration updates for multiple switches
- Event/hardware network monitoring (CPU/memory utilization)
- Enable & disable PoE, set PD (powered device) alive check, configure PoE scheduling, and monitor PoE budget utilization (for PoE switches only)
- Configure features such as IP address settings, VLANs, spanning tree, loopback detection, IGMP snooping, link aggregation, and bandwidth control through cloud management

**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: 460W

**PoE**

- Power Budget: 370W
- 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
- PD alive check

**Fan/Acoustics**

- Quantity: 2
- Noise Level: 52 dBA (max.)

**MTBF**

- 192,382 hours

**Operating Temperature**

- -5° – 50° C (23° – 122° F)

**Operating Humidity**

- Max. 90% non-condensing

**Dimensions**

- 440 x 250 x 44mm (17.3 x 9.8 x 1.74 in.)
- Rack mountable 1U height

**Weight**

- 3.89kg (8.5 lbs.)

**Certifications**

- CE
- FCC
- UL

**Warranty**

- 3 year

**Package Contents**

- TPE-1620WSF
- 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.