



20-Port Gigabit Web Smart Ultra PoE Switch

TPE-204US (v1.5R)

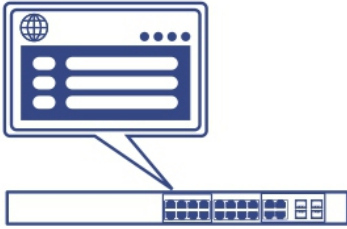
- 8 x Gigabit UPoE ports
- 8 x Gigabit PoE+ ports
- 4 x Shared Gigabit ports (RJ-45 or SFP)
- Supports PoE (15.4W), PoE+ (30W), and UPoE (60W) power
- 370W PoE power budget
- Easy-to-use web-based management interface
- PD alive check automatically attempts to recover an unresponsive PoE device connected
- Supports IPv6, LACP, VLAN, QoS, and IGMP Snooping
- Remote cloud management with TRENDnet Hive (Additional fee applies)
- Bandwidth control per port
- Private and Voice VLAN support
- Smart Fan
- 40Gbps switching capacity
- IEEE 802.1p QoS with queue scheduling support

TRENDnet's 20-Port Gigabit Web Smart Ultra PoE Switch, model TPE-204US, delivers advanced management features with an intuitive web-based interface. This rack mountable IPv6 ready switch supports advanced traffic management controls with SNMP monitoring, making this a powerful solution for SMB networks. The TPE-204US includes eight gigabit UPoE ports, eight gigabit PoE+ ports, a total power budget of 370W, four shared gigabit ports (RJ-45 or SFP), and a 40Gbps switching capacity.

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. Dynamic ARP inspection support 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 bottlenecks.

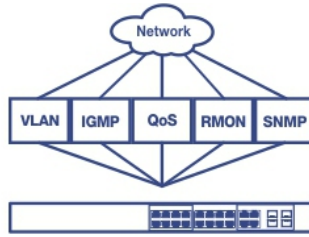
Installers and integrators can save on equipment costs and reduce installation time by delivering PoE power and data over existing Ethernet cables. With PoE technology, users only need one set of cables to deliver both data and power. With UPoE, this switch supplies up to 60W of power per port for devices, 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 20-Port Gigabit Web Smart Ultra PoE Switch 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.



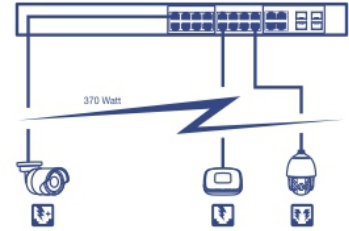
Web Smart Management

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

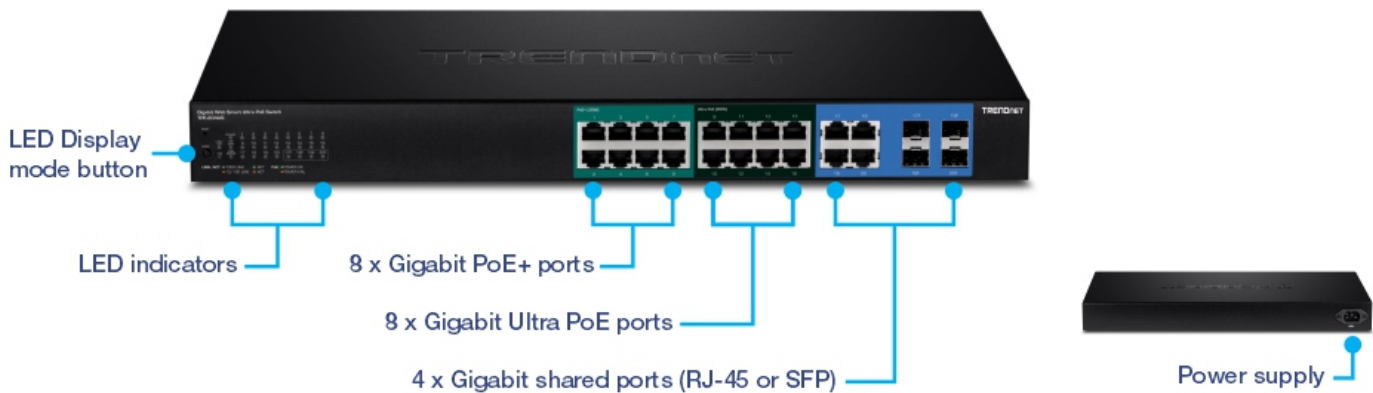
Managed features include access control lists, VLAN, IGMP snooping, QoS, RMON, SNMP trap, and syslog for monitoring and flexible network integration.



UPoE Power

A 370W PoE power budget supplies power to PoE/PoE+/UPoE devices.

NETWORKING SOLUTION



FEATURES



Hardware Design

Features 8 gigabit UPoE ports, 8 gigabit PoE+ ports, 4 shared gigabit ports (RJ-45 or SFP), and 1U rackmount design (brackets included).



Hive Enabled

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



Access Control

Features access controls such as ACL, SSL, MAC/port filtering, 802.1X, TACACS+, and RADIUS



PoE Power

Supplies a PoE device with PoE (15.4W), PoE+ (30W), or UPoE (60W) power, and a total PoE power budget of 370W.



IPv6 Ready

This switch supports IPv6 address configuration and IPv6 neighbor discovery.



Monitoring

RMON, SNMP, SNMP Trap, and Port Mirroring support



Troubleshooting

A convenient cable diagnostic test and traffic statistics helps with network troubleshooting



Traffic Management

A broad range of network configurations are supported by: 802.3ad link aggregation, Asymmetric VLAN, 802.1Q VLAN, Voice VLAN, RSTP, MSTP, Loopback Detection, GVRP, 802.1p Class of Service (CoS), port bandwidth management, and QoS queue scheduling

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
- IEEE 802.3bt (draft)

Device Interface

- 8 x Gigabit Ultra PoE ports
- 8 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)

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)

Data Transfer Rate

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

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 and LLDP-MED
- Virtual cable diagnostics test
- IPv6: IPv6 neighbor discovery, IPv6 Static IP, DHCPv6, auto configuration

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 Snooping 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

- 802.3ad Dynamic LACP
- Static Link Aggregation

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
- 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
- Static Multicast Address
- Up to 256 multicast entries

Port Mirror

- Rx, Tx, or Both
- One to one, many to one

Encryption

- 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)

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® 10, 8.1, 8, 7, and Windows® Server 2003/2008/2012/2016

PoE

- PoE budget: 370W
- 802.3at: up to 30W per port (ports 1-8)
- 802.3bt: up to 60W per port (ports 9-16)
- Mode A: Pins 1,2 for power+ and pins 3,6 for power – (mode A)
- PD auto/manual classification
- PoE port priority
- PoE power scheduling
- Over current/short circuit protection
- PD alive check

Power

- Input: 100 – 240V AC, 50/60Hz, internal power supply
- Max. consumption: 25.2W (No PoE load)

Fan/Acoustics

- Quantity: 2
- Max Noise Level: 52.8 dBA

MTBF

- 279,589 hours

Operating Temperature

- -5° – 50°C (23° - 122°F)

Operating Humidity

- Max. 95% non-condensing

Dimensions

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

Weight

- 3.86kg (8.49 lbs.)

Certifications

- CE
- FCC
- UL

Warranty

- 3 year

Package Contents

- TPE-204US
- Quick Installation Guide
- Power cord (1.8m/6 ft.)
- Rackmount 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.