

# Business Switch and Router

Ideal Wired Networking for Small and Medium Businesses

## Products Guide



Apr. 2020

Professional  
Reliable  
Secure





# CORPORATE PROFILE

Founded in 1996, TP-Link is a global provider of reliable networking devices and accessories, involved in all aspects of everyday life. The company is consistently ranked by analyst firm IDC as the No.1 provider of Wi-Fi devices,\* supplying distribution to more than 170 countries and serving billions of people worldwide.

With a proven heritage of stability, performance, and value, TP-Link has created a portfolio of consumer and SMB networking products. Now, as the connected lifestyle continues to evolve, the company is expanding its business domain into Smart Home, IoT, and Smartphone technologies in order to meet the demands of tomorrow.

TP-Link offers all kinds of business products for any situation, providing advanced indoor and outdoor, wireless and wired systems for service provider and enterprise customers. The business products of TP-Link include Omada SDN, Pharos Wireless Broadband, JetStream and LiteWave Switches, and SafeStream Business Routers — ideal for hospitality, education, retail, and more.

\*According to latest published IDC Worldwide Quarterly WLAN Tracker Report, Q1 2019 Final Release.

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# The TP-Link Switch Family

JetStream LiteWave

TP-Link provides a variety of switches for business networking solutions, aiming to provide premium network performance while maintaining a competitive cost.

Our products are comprised of LiteWave and JetStream Unmanaged Switches, JetStream Easy Smart Switches, JetStream Smart Switches, JetStream L2 Managed Switches, and JetStream L3 Managed Switches.



## TP-Link Switch Solutions

### Professional, Reliable and Affordable

TP-Link switches are designed to offer reliable and professional choices to businesses of all sizes. Unmanaged switches are well suited for businesses requiring no management or monitoring of their LAN, smart/L2 switches provide a cost-effective solution for small and medium-sized businesses, and L3 managed switches provide a scalable and stable solution for large organizations, campus networks, and ISP networks.

### Abundant Advanced Features

An array of L2 features are supported, including 802.1Q tag VLAN, Port Mirroring, STP/RSTP/MSTP, Link Aggregation Control Protocol, and 802.3x Flow Control. The switch also provides advanced features for network maintenance, including Loopback Detection and Cable Diagnostics.

### 10GBase-T Technology

10GBase-T Technology is becoming more common and affordable. Low-Latency, Line-Rate 10G Copper Base-T is backward compatible with Fast Ethernet and Gigabit Ethernet and can automatically negotiate between higher and lower speed connections. Most importantly, 10GBase-T provides a cost-effective method for migrating from your current network to 10G Ethernet by utilizing your existing CAT5e/CAT6 RJ-45 short connections (up to 55m) and CAT6A/CAT7 connections (up to 100m). This reduces cabling complexity and ultimately results in significant savings for customers.

### Secure Networking

TP-Link Switches provide IP-MAC-Port Binding, Port Security, Storm control and DHCP Snooping which protect against broadcast storms, ARP attacks, etc. You can protect these attacks more easily than ever before. In addition, the Access Control Lists (ACL, L2 to L4) feature restricts access to sensitive network resources by denying packets based on source and destination MAC address, IP address, TCP/UDP ports and even VLAN ID.

### Physical Stacking

With True Physical Stacking Technology, up to 8 units can be stacked with a single IP address. This provides enhanced scalability, simple management, and increased redundancy for high-density deployment. It also supports efficient network expansion in the future.

### Enterprise Level and Flexible Management

TP-Link switches support various management features, such as intuitive web-based Graphical User Interface (GUI) or industry-standard Command Line Interface (CLI), either administration traffic can be protected through SSL or SSH encryptions. SNMP (v1/v2c/v3) and RMON support enables the switch to be polled for valuable status information and send traps on abnormal events.

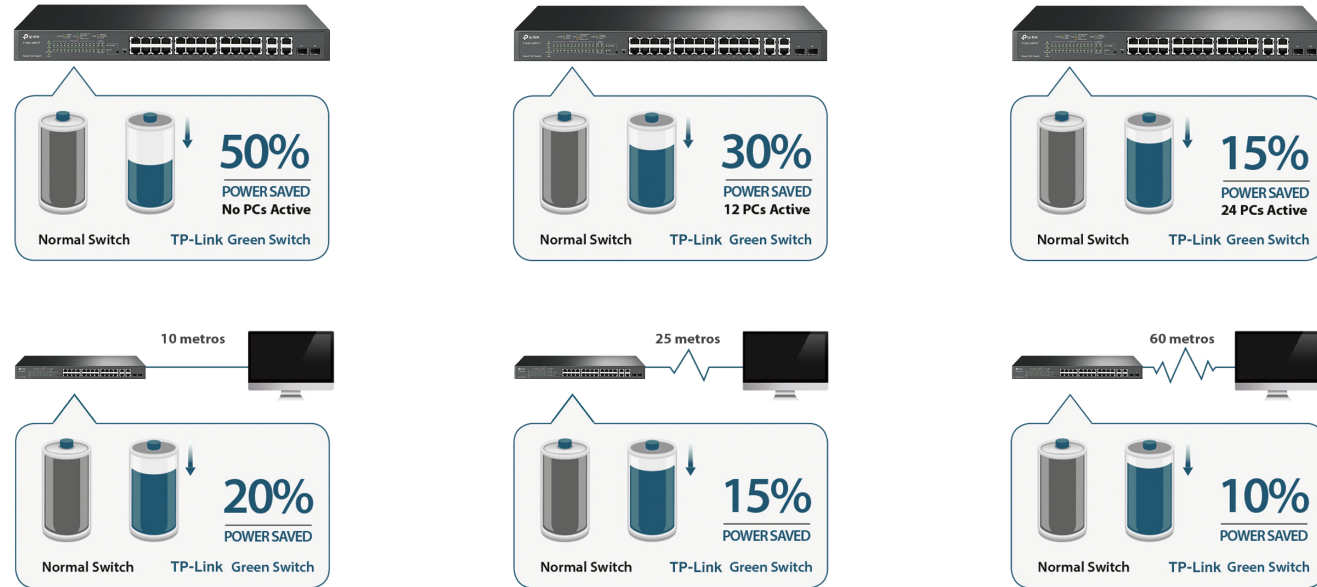
### IPv6 Support

IPv6 functions supported are Dual IPv4/IPv6 Stack, MLD Snooping, IPv6 ACL, DHCPv6 Snooping, IPv6 Interface, Path Maximum Transmission Unit (PMTU) Discovery and IPv6 Neighbor Discovery.

\* Features mentioned above are supported by specific models. For detailed information, please refer to the detailed specifications.

## Green Technology

TP-Link power saving technology helps you build your network with less investment. What's more, TP-Link consciously strives to commit to reducing our own environmental footprint, so as to protect our environment for now and the future.



\*Maximum power savings when compared to a TP-LINK conventional switch, and the real saving rate may vary based on the usage condition

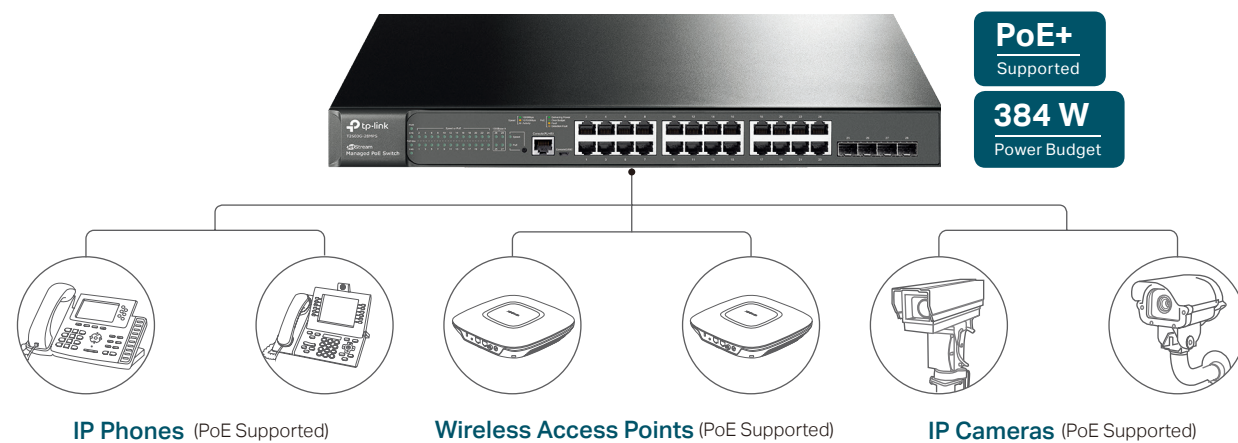
## Power Over Ethernet

TP-Link's Power over Ethernet (PoE) switches are specially designed to meet either the 802.3af standard, or the 802.3at PoE+ standard for powering network devices. Electrical power is transmitted along with data in a single cable, allowing users to expand their networks to places where there are no power outlets.

## Typical PoE Application

JetStream 24-Port Gigabit L2 Managed PoE+ Switch with 4 SFP Slots

**T2600G-28MPS**



Note: Please refer to page 19 to find more details about power over Ethernet.

## TP-Link JetStream and LiteWave Switches

L3 Switches	T3700G-52TQ T3700G-28TQ			
L2 Switches	T2600G-28SQ T2600G-52TS T2600G-28TS T2600G-28TS-DC T2600G-18TS T2500G-10TS		T2600G-28MPS	
Smart Switches	T1700X-16TS T1700G-28TQ T1600G-52TS T1600G-28TS T1600G-18TS T1500G-8T		T1600G-52PS TL-SG2428P TL-SG2210MP TL-SG2210P	TL-SL2428P
Easy Smart Switches	TL-SG1024DE TL-SG1016DE TL-SG116E TL-SG108E TL-SG105E		TL-SG1428PE TL-SG1218MPE TL-SG1016PE TL-SG1210MPE TL-SG108PE TL-SG105PE	
Unmanaged Switches — Rackmount	TL-SG1048 TL-SG1024D TL-SG1024 TL-SG1016D TL-SG1016 TL-SG1008	TL-SF1048 TL-SF1024D TL-SF1024 TL-SF1016DS TL-SF1016	TL-SG1218MP TL-SG1210MP TL-SG1008MP	TL-SL1226P TL-SL1218P TL-SL1218MP
Unmanaged Switches — Desktop	TL-SG116 TL-SG1008D TL-SG108 TL-SG1005D TL-SG105	TL-SF1024M TL-SF1016D TL-SF1008D TL-SF1005D	TL-SG1210P TL-SG1008P TL-SG1005P TL-SG1005LP	TL-SL1210MP TL-SF1009P TL-SF1008P TL-SF1008LP TL-SF1006P TL-SF1005P TL-SF1005LP
LiteWave Unmanaged Switches	LS108G LS1008G LS105G LS1005G	LS1008 LS1005		
	Non-PoE (1G/10G)	Non-PoE (FE)	POE (1G)	POE (FE)

## Main Differences of TP-Link L3/ L2 Managed and Smart Switches

Layer	Switches	L3 Managed	L2 Managed		Smart			
		T3700 Series	T2600 Series	T2500 Series	T1700G-28TQ	T1700X-16TS	T1600 Series	T1500 Series
Hardware	RJ45 Ports	GE	GE	GE	GE	10G	GE	GE
	SFP Ports	4x Combo SFP, up to 4x SFP+ for 10G Uplink	SFP (except T2600G-28SQ: 24x SFP, 4x SFP+ for 10G Uplink)	2x SFP	4x SFP+ for 10G Uplink	4x SFP+ for 10G Uplink	SFP	SFP
	Console Port	1(RJ45)+1(Micro USB)	1(RJ45)+1(Micro USB)	1(RJ45)+1(Micro USB)	-	-	-	-
	Dual Hot-Swappable Power Supply	•	-	-	-	-	-	-
Stacking	Physical Stacking	•	-	-	•	-	-	-
L3 Features	Dynamic Routing	•	-	-	-	-	-	-
	ECMP, RIP v1/v2, OSPFv2, VRRP, PIM-SM/PIM-DM/IGMP	•	-	-	-	-	-	-
	Static Routing	•	•	•	•	•	•	-
	ARP Proxy	•	•	•	•	•	•	-

# L3 Stackable Managed Switches

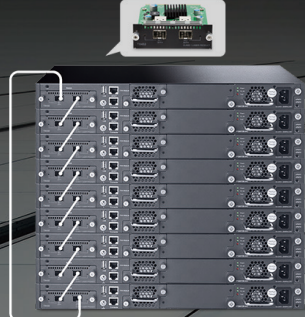
## T3700 Series

### Reliable Solution for Highly Accessible, Scalable and Robust Networks

TP-Link's L3 switches are designed to build highly accessible, scalable, and robust networks. Our L3 managed switches include T3700G-52TQ and T3700G-28TQ. With physical stacking and an optional backup external power unit, all two provide robust networks with efficient reliability.

## 10G Stackable L3 Managed Switch — T3700G-52TQ / T3700G-28TQ

JetStream 52 / 28-Port Gigabit Stackable L3 Managed Switch



**8** units

True Physical Stacking technology supports up to 8 units for network simplification

**384 / 192** GE

Up to 384 / 192 GE, 32 Gigabit combo SFP and 32 10G SFP+ per physical stack

**1,408 / 1,024** Gbps

Provides up to 1,408 / 1,024 Gbps switching capacity for aggregation network

**1** IP

A single IP address makes for easy configuration and monitoring

### Physical Stackable Technology

Stackable switches offer enhanced capacity while retaining ease of management

### L3 Advanced L3 Features

- Static Routing
- RIP
- OSPF
- ECMP
- VRRP
- PIM-SM
- PIM-DM

### 10G High-speed Connection

- 10 Gigabit transition with SFP+ Slots
- Up to four 10G SFP+ Slots
- 10 Gigabit Ethernet uplink provides support for high-bandwidth applications

### Dual Removable Power Module

- Two Hot-Swappable Power Supply Modules (PSM150-AC) minimize downtime
- Two power supplies provide backup for each other, making it an ideal choice for reliable networking architecture

## Features

### L2 and L2+ Features

- Static Routing
- RIP v1, v2
- OSPF v2
- PIM-SM/PIM-DM/IGMP
- DHCP Server/Relay
- ARP Proxy
- VRRP

### Physical Stacking



- Up to 8 Units Physical Stacking
- Up to 32 Gigabit combo SFP and 16 10G SFP+ slots
- Up to 320 Gbps Stacking Bandwidth
- Ring Stacking for Link Redundancy
- Distributed Link Aggregation

### Layer 2 Features & Security

- AAA
- IP-MAC-Port-VID Binding
- Access Control List (L2-L4 ACL)
- Link Aggregation Control Protocol (LACP)
- 4K VLAN
- IGMP/MLD Snooping
- Quality of Service
- 802.1x and RADIUS/TACACS+ Authentication

### Management

- Physical Stacking for Unified Management
- Web-based GUI
- Command Line Interface
- SNMP v1/v2c/v3
- RMON (1, 2, 3, 9 group)
- Dual Image
- IPv6 Management

Product Picture	 		
Model	T3700G-52TQ V1	T3700G-28TQ V3	
Product Description	JetStream 52-Port Gigabit Stackable L3 Managed Switch		
Hardware	Gigabit RJ45 Ports	48	24
	Gigabit SFP Ports	4 (Combo)	
	10G SFP+ Slots	Up to 4 (2 fixed and 2 optional)	
	Console Port	1 (RJ45), 1 (Micro-USB)	
	Management Port	1(RJ45)	
	USB Port	1 USB Storage Slot	
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3z, 802.3ae, 802.3ad, 802.3x, 802.1v, 802.1d, 802.1s, 802.1w, 802.1Q, 802.1x, 802.1p	
	Flow Control	•	
	Power Supply	Two Hot-Swappable Power Supply Modules (PSM150-AC) 100-240 VAC, 50/60 Hz	
	Certifications	CE, FCC	
	Dimensions (W x D x H)	17.3 x 16.5 x 1.7 in (440x420x44 mm)	17.3 x 13 x 1.7 in (440x330x44 mm)
	Environment	Operating Temperature: 0-40 °C (32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing	
Physical Stacking	Max Number of Stacking Ports Installable	2 SFP+	
	No. of Units Per Stack	8	
	Stacking Speed (Per Port)	20 Gbps (Full-Duplex)	
Performance	Switch Capacity	Up to 176 Gbps for a standalone switch	Up to 128 Gbps for a standalone switch
	Forwarding Rate	Up to 130.9 Mpps for a standalone switch	Up to 95.2 Mpps for a standalone switch
	MAC Address Table	32 K	
	Packet Buffer Memory	32 Mbits	
	Number of IP Interfaces	128	
	Number of Routes	8 K IPv4	
	Number of Static Routes	256	
Jumbo Frame	12 KB		
L3 Features	Wire-speed IP forwarding	•	
	Static Routing	•	
	RIP	v1/v2	
	OSPF	v2	
	ECMP	•	
	PIM-SM/PIM-DM/IGMP	•	
	DHCP Server/Relay	•	
ARP Proxy	•		
VRRP	•		
L2 Features	IGMP Snooping	V1/V2/V3	
	STP/RSTP/MSTP	•	
	Loopback Detection	•	
	QinQ	•	
	VLAN	802.1Q/MAC-based/Protocol-based/GVRP/Private/Voice VLAN	
	QoS	8 Queues, Port/802.1p/DSCP QoS	
	Rate Limit	•	
	Port Isolation	•	
	Port Mirroring	•	
	Link Aggregation	Static LAG / LACP	
DHCP Snooping	•		
Security	Access Control List	•	
	IP + MAC + Port + VID Binding	•	
	Storm Control	•	
	Port Security	•	
	SSH & SSL	•	
	IP Source Guard	•	
	DoS Defend	•	
	Dynamic ARP Inspection	•	
IEEE 802.1X Authentication	•		
System Management	SNMP	V1/V2c/V3	
	RMON	Group 1, 2, 3, 9	
	Command Line Interface (CLI)	•	
	Dual Image/Configuration	•	
	LLDP/LLDP-MED	•	
	IPv6	•	
	Firmware Upgrade	•	
System Diagnose	VCT/CPU Monitor/Ping/Tracert		
Web Interface/SYSLOG/MIBS	•		

# L2 Managed Switches

## T2600 Series L2 Managed Switches

### L2+ Managed Solutions for Demanding Networking Applications

TP-Link's JetStream T2600 series L2 managed switches provide ideal networking solutions for both small and medium-sized businesses, as well as enterprise networks and campus networks. Features include enterprise-level QoS, advanced security strategies, abundant management features and enhanced L2+/L2 features, such as static routing, OAM, L2PT and sFlow.

## T2500 Series L2 Managed Switches

### Ideal Solution for Small and Medium-sized Business Networks

TP-Link's JetStream T2500 series L2 managed switches are designed exclusively for the networking needs of growing businesses, with an extensive suite of management features and security functions available. These TP-Link products are cost-effective for small and medium sized businesses, making them ideal networking solutions.

## T2600G-52TS / T2600G-28TS / T2600G-18TS

JetStream 48/24/16-Port Gigabit L2 Managed Switch with 4/4/2 SFP Slots  
48/24/16 Gigabit RJ45, 4/4/2 Gigabit SFP, 1 RJ45 Console Port, 1 Micro-USB Console Port, 19-inch rackmount

L2  
Static Routing

Abundant L2 Features

IP  
IPv6 Support

Comprehensive QoS Features

Robust Security Strategies



**T2600G-28TS-DC**  
JetStream 24-Port Gigabit L2 Managed Switch with DC Power Supply

24 Gigabit RJ45, 4 Gigabit SFP, 1 RJ45 Console Port, 1 Micro-USB Console Port, 19-inch rackmount, DC power supply



**T2600G-28MPS (TL-SG3424P)**  
JetStream 24-Port Gigabit L2 Managed PoE+ Switch with 4 SFP Slots

24 Gigabit RJ45 (all ports support 802.3at/af PoE+), 4 Gigabit SFP, 1 RJ45 Console Port, 1 Micro-USB Console Port, 19-inch rackmount



**T2600G-28SQ**  
JetStream 28-Port Gigabit SFP L2 Managed Switch

24 Gigabit SFP, 4 Gigabit Combo RJ45 and 4 10G SFP+, 1 RJ45 Console Port, 1 Micro-USB Console Port, 19-inch rackmount



**T2500G-10TS (TL-SG3210)**  
JetStream 8-Port Gigabit L2 Managed Switch with 2 SFP Slots

8 Gigabit RJ45, 2 Gigabit SFP, 1 RJ45 Console Port, 1 Micro-USB Console Port, 13-inch desktop/rackmount

\*Please refer to page 19 to find more details about power over Ethernet.

Product Picture								
Model	T2600G-28SQ V1	T2600G-52TS (TL-SG3452) V3	T2600G-28TS (TL-SG3424) V4	T2600G-28TS-DC V1	T2600G-28MPS (TL-SG3424P) V4	T2600G-18TS (TL-SG3216) V2	T2500G-10TS (TL-SG3210) V3	
Product Description	JetStream 28-Port Gigabit SFP L2 Managed Switch	JetStream 48-port Gigabit L2 Managed Switch with 4 SFP Slots	JetStream 24-port Gigabit L2 Managed Switch with 4 SFP Slots	JetStream 24-Port Gigabit L2 Managed Switch with 4 SFP Slots and DC Power Supply	JetStream 24-Port Gigabit L2 Managed PoE+ Switch with 4 SFP Slots	JetStream 16-Port Gigabit L2 Managed Switch with 2 SFP Slots	JetStream 8-Port Gigabit L2 Managed Switch with 2 SFP Slots	
Hardware	Gigabit RJ45 Ports	4 (Combo)	48	24	24	24, all support PoE+	16	
	Gigabit SFP Ports	24	4	4	4	4	2	
	10G SFP+ Slots	4	-	-	-	-	-	
	Console Port	1 (RJ45), 1 (Micro-USB)						
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3z, 802.3ad, 802.3x, 802.1Q, 802.1p, 802.1d, 802.1w, 802.1s, 802.1x						
	Flow Control	•						
	Power Supply	100-240 VAC, 50/60 Hz			18-48 VDC		100-240 VAC, 50/60 Hz	
	PoE Power Budget	-				384 W		-
	PoE Standard	-				802.3at/af		-
	Fanless	2 Fans		•		2 Fans		•
Certifications	CE, FCC							
Performance	Switching Capacity	128 Gbps	104 Gbps	56 Gbps	56 Gbps	56 Gbps	36 Gbps	
	Forwarding Rate	95.2 Mpps	77.4 Mpps	41.7 Mpps	41.7 Mpps	41.7 Mpps	26.8 Mpps	
	MAC Address Table	16 K					8 K	8 K
L2+ Features	Jumbo Frame	9 KB					10 KB	
	Static Routing	•						
	DHCP Server/Relay	•						
	ARP Proxy	•						
	IGMP Snooping	V1/V2/V3						
L2 Features	STP/RSTP/MSTP	•						
	Root Guard/Loopback Detection	•						
	QinQ	•						
	VLAN	802.1Q/GVRP/MAC/Protocol/Private*/Voice VLAN						
	QoS	8 Queues, Port/802.1p/DSCP QoS						
	Rate Limit	•						
	Port Isolation	•						
	Port Mirroring	•						
	Link Aggregation	Static LAG / LACP						
	DHCP Snooping	•						
Security	Access Control List	•						
	IP+MAC+Port+VID Binding	•						
	Storm Control	•						
	SSH & SSL	•						
	IP Source Guard	•						
	DoS Defend	•						
	Dynamic ARP Inspection	•						
IEEE 802.1X Authentication	•							
System Management	SNMP	V1/V2c/V3						
	RMON	Group 1, 2, 3, 9						
	Command Line Interface (CLI)	•						
	Dual Image/Configuration	•						
	sFlow	•						
	Ethernet OAM	•						
	LLDP/LLDP-MED	•						
	IPv6	•						
Firmware Upgrade	•							
System Diagnose	VCT/CPU Monitor/Ping/Tracert							
Web Interface/SYSLOG/MIBS	•							

\* T2600G-18TS and T2500G-10TS don't support private VLAN.

# JetStream Smart Switches

## T1700 Series 10 Gbit Smart Switches

### Affordable 10-Gigabit Switching Solution for Growing SMBs

TP-Link's new T1700 Series 10G Smart Switches provide increased scalability, greater bandwidth, and enhanced performance. The series includes the T1700X-16TS Full 10-Gigabit Smart Switch and the T1700G-28TQ Gigabit Stackable Smart Switch with 10G Uplink, which both provide high levels of performance, scalability, and cost-effectiveness that SMBs require from their 10G networking solutions.

## T1600 Series Smart Switches

### Cost-Effective Solution with Enhanced Usability and Exceptional Performance

Integrated with useful L2 and L2+ features such as static routing, 802.1Q VLAN, QoS, and IGMP Snooping, they provide cost-effective networking solutions for small and medium-sized businesses, offering enhanced usability and better performance.

## T1500 Series Smart Switches

### A Simple, Intelligent Networking Solution for the Access Layer

TP-Link's JetStream T1500 Series Smart Switches have been specially developed for the access layer of small and medium networks. Integrated with useful L2 features such as 802.1Q VLAN, QoS, IGMP Snooping, STP, Storm Control and SNMP, TP-Link's T1500 Series provides administrators with simple, cost-effective, and yet intelligent networking solutions.

## Omada—Smarter Cloud Solution for Business Networking



Omada Software Defined Networking (SDN) platform integrates network devices including access points, switches and gateways, providing 100% centralized cloud management to create a highly scalable network—all controlled from a single interface.

## Features

### L2 and L2+ Features

- Static Routing (IPv4/IPv6)\*
- ARP Proxy\*
- DHCP Relay/Server\*
- IGMP/MLD Snooping
- GARP VLAN Registration Protocol (GVRP)
- Link Aggregation Group (LAG)
- Link Aggregation Control Protocol (LACP)
- STP/RSTP/MSTP
- 802.1Q/MAC/Protocol VLAN
- LLDP/LLDP-MED

### Quality of Service

- 8 Priority Queues
- IEEE 802.1p Priority
- DSCP QoS
- Rate Limit
- IPv6 QoS\*
- Voice VLAN

### Security Strategies

- AAA
- IP-MAC-Port-VID Binding
- Access Control List (L2-L4 ACL, IPv6 ACL)
- ARP Inspection
- IP Source Guard
- 802.1x and RADIUS/TACACS+ Authentication
- DoS Defend
- Port Isolation
- DHCP Snooping
- Loopback Detection

### Management

- Web-based GUI
- Command Line Interface
- SNMP V1/V2c/V3
- RMON (1, 2, 3, 9 group)
- IPv6 Management
- Dual Image

\*T1500 series doesn't support these functions.

## Affordable 10-Gigabit Switching Solution for Growing SMBs

JetStream T1700 Series 10G Smart Switches



**T1700X-16TS** 10G  
12x 10GBase-T RJ45, 4x 10G SFP+, 19-inch rackmount



**JetStream 12-Port 10GBase-T Smart Switch with 4 10G SFP+ Slots**  
• Future-Proof 10GBase-T Technology  
• 16x 10-Gigabit Ports  
• 320 Gbps Switching Capacity  
• High Specification Broadcom Chipset



**T1700G-28TQ** 10G  
24x Gigabit RJ45, 4x 10G SFP+, 19-inch rackmount



**JetStream 24-Port Gigabit Stackable Smart Switch with 4 10GE SFP+ Slots**  
**Physical Stacking**  
• 6 Units  
• 144x GE Ports  
• 24x 10G SFP+  
• 768 Gbps  
• 1 Management IP



**T1600G-52TS (TL-SG2452)**  
JetStream 48-Port Gigabit Smart Switch with 4 SFP Slots  
48 Gigabit RJ45, 4 Gigabit SFP, 19-inch rackmount



**T1600G-28TS**  
JetStream 24-Port Gigabit Smart Switch with 4 SFP Slots  
24 Gigabit RJ45, 4 Gigabit SFP, 19-inch rackmount



**TL-SG2428P / T1600G-52PS (TL-SG2452P)**  
JetStream 28/52-Port Gigabit Smart Switch with 24/48-Port PoE+  
24/48 Gigabit RJ45 (all support 802.3at/af PoE+), 4 Gigabit SFP, 19-inch rackmount



**T1600G-18TS (TL-SG2216)**  
JetStream 16-Port Gigabit Smart Switch with 2 SFP Slots  
16 Gigabit RJ45, 2 Gigabit SFP, 19-inch rackmount



**TL-SG2210MP**  
JetStream 10-Port Gigabit Smart Switch with 8-Port PoE+  
8 Gigabit RJ45 (all support 802.3at/af PoE+), 2 Gigabit SFP, 13-inch desktop/rackmount



**TL-SG2210P**  
JetStream 8-Port Gigabit Smart PoE+ Switch with 2 SFP Slots  
8 Gigabit RJ45 (all support 802.3at/af PoE+), 2 Gigabit SFP, desktop design

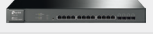






**T1500G-8T (TL-SG2008)**  
JetStream 8-Port Gigabit Smart Switch  
8 Gigabit RJ45 (1 802.3af PD Port), desktop design









**TL-SL2428P**  
JetStream 24-Port 10/100Mbps + 4-Port Gigabit Smart Switch with 24-Port PoE+  
24 10/100 Mbps RJ45 (all support 802.3at/af PoE+), 4 Gigabit RJ45, 2 Combo Gigabit SFP, 19-inch rackmount

\*Please refer to page 19 to find more details about power over Ethernet.

Product Picture						
Model		T1700X-16TS V3	T1700G-28TQ V3	T1600G-52PS (TL-SG2452P) V4	T1600G-52TS (TL-SG2452) V4	TL-SG2428P V1
Product Description		JetStream 12-Port 10GBase-T Smart Switch with 4 10G SFP+ Slots	JetStream 24-Port Gigabit Stackable Smart Switch with 4 10GE SFP+ Slots	JetStream 48-Port Gigabit Smart PoE+ Switch with 4 SFP Slots	JetStream 48-Port Gigabit Smart Switch with 4 SFP Slots	JetStream 28-Port Gigabit Smart Switch with 24-Port PoE+
Hardware	10/100 Mbps RJ45 Ports			-		
	Gigabit RJ45 Ports	-	24	48, all support PoE+	48	24, all support PoE+
	Gigabit SFP Ports	-	-	4	4	4
	10GBase-T RJ45 Ports	12			-	
	10G SFP+ Ports	4				-
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3ad, 802.3x, 802.3ae, 802.3an, 802.1Q, 802.1p, 802.1d, 802.1w, 802.1s, 802.1x		IEEE 802.3i, 802.3u, 802.3ab, 802.3ad, 802.3x, 802.1Q, 802.1p, 802.1d, 802.1w, 802.1s, 802.1x		
	Auto-Negotiation / Auto MDI/MDIX			•		
	Flow Control			•		
	Power Supply			100-240 VAC, 50/60 Hz		
	PoE Power Budget	-		384 W	-	250 W
	PoE Standard	-		802.3at/af	-	802.3at/af
	Fanless	2 Fans	•	3 Fans	•	2 Fans
	Certifications			CE, FCC		
	Dimensions (W x D x H)	17.3x8.7x1.7 in (440x220x44 mm)	17.3x7.1x1.7 in (440x180x44 mm)	17.3x13x1.7 in (440x330x44 mm)	17.3x8.7x1.7 in (440x220x44 mm)	
Environment	Operating Temperature: 0-40 °C(32-104 °F)**; Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing					
Performance	Switching Capacity	320 Gbps	128 Gbps	104 Gbps	56 Gbps	
	Forwarding Rate	238.1 Mpps	95.2 Mpps	77.4 Mpps	41.7 Mpps	
	MAC Address Table	16 K		8 K		
	Jumbo Frame	9 KB				
Physical Stacking	Max Number of Stacking Ports	-	2 SFP+	-		
	Stacking Units	-	6	-		
L2+ Features	Static Routing	•		•	•	•
	DHCP Server/Relay	•		•	•	•
	ARP Proxy	•		•	•	•
L2 Features	IGMP Snooping			V1/V2/V3		
	STP/RSTP/MSTP			•		
	Loopback Detection			•		
	VLAN			802.1Q/GVRP/MAC/Protocol/Private*/Voice VLAN		
	QoS			8 Queues, Port/802.1p/IP DSCP QoS		
	Rate Limit			•		
	Port Isolation			•		
	Link Aggregation			Static LAG / LACP		
	Port Mirroring			•		
	DHCP Snooping			•		
Security	Access Control List			•		
	IP + MAC + PORT + VID Binding			•		
	Storm Control			•		
	Port Security			•		
	SSH & SSL			•		
	DoS Defend			•		
	Dynamic ARP Inspection			•		
	IEEE 802.1X Authentication			•		
System Management	Guest VLAN			•		
	SNMP			V1/V2c/V3		
	RMON			Group 1, 2, 3, 9		
	Command Line Interface (CLI)			Telnet		
	IPv6			•		
	Dual Image			•		
	Firmware Upgrade			•		
	System Diagnose			VCT/CPU Monitor/Ping/Tracert		
Web Interface/SYSLOG/Public MIBS			•			

\*Private VLAN is only supported by T1700X-16TS.

Product Picture							
Model		T1600G-28TS V3	T1600G-18TS (TL-SG2216) V2	TL-SG2210MP V1	TL-SG2210P V3	T1500G-8T (TL-SG2008) V2	TL-SL2428P V4
Product Description		JetStream 24-Port Gigabit Smart Switch with 4 SFP Slots	JetStream 16-Port Gigabit Smart Switch with 2 SFP Slots	JetStream 10-Port Gigabit Smart Switch with 8-Port PoE+	JetStream 8-Port Gigabit Smart PoE+ Switch with 2 SFP Slots	JetStream 8-Port Gigabit Smart Switch	JetStream 24-Port 10/100Mbps + 4-Port Gigabit Smart Switch with 24-Port PoE+
Hardware	10/100 Mbps RJ45 Ports			-		24, all support PoE+	
	Gigabit RJ45 Ports	24	16	8, all support PoE+	8, all support PoE+	8, including 1 PD port	4
	Gigabit SFP Ports	4	2	2	2	-	2 (Combo)
	10GBase-T RJ45 Ports					-	
	10G SFP+ Ports					-	
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3ad, 802.3x, 802.1Q, 802.1p, 802.1d, 802.1w, 802.1s, 802.1x					
	Auto-Negotiation / Auto MDI/MDIX					•	
	Flow Control					•	
	Power Supply	100-240 VAC 50/60 Hz		53.5 VDC/1.31 A External Adapter		12 VDC/1 A External Adapter or Obtain Power from PoE Source	100-240 VAC, 50/60 Hz
	PoE Power Budget	-		150 W	58 W	-	192 W (v3) 250 W* (v4)
	PoE Standard	-		802.3at/af	802.3at/af	-	802.3at/af
	Fanless	•		1 Fan	•	•	2 Fans
	Certifications	CE, FCC					
	Dimensions (W x D x H)	17.3x7.1x1.7 in (440x180x44 mm)		11.6x7.1x1.7 in (294x180x44 mm)	8.2x4.9x1.0 in (209x126x26 mm)	8.2x4.9x1.0 in (209x126x26 mm)	17.3x8.7x1.7 in (440x180x44 mm)
Environment	Operating Temperature: 0-40 °C(32-104 °F)**; Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing						
Performance	Switching Capacity	56 Gbps	36 Gbps	20 Gbps		16 Gbps	12.8 Gbps
	Forwarding Rate	41.7 Mpps	26.8 Mpps	14.9 Mpps		11.9 Mpps	9.5 Mpps
	MAC Address Table			8 K			
	Jumbo Frame			9 KB			
Physical Stacking	Max Number of Stacking Ports			-			
	Stacking Units			-			
L2+ Features	Static Routing	•				-	
	DHCP Server/Relay	•				-	
	ARP Proxy	•				-	
L2 Features	IGMP Snooping			V1/V2/V3			
	STP/RSTP/MSTP			•			
	Loopback Detection			•			
	VLAN			802.1Q/GVRP/MAC/Protocol/Voice VLAN			
	QoS			8 Queues, Port/802.1p/DSCP QoS			
	Rate Limit			•			
	Port Isolation			•			
	Link Aggregation			Static LAG, LACP			
	Port Mirroring			•			
	DHCP Snooping			•			
Security	Access Control List			•			
	IP + MAC + Port + VID Binding			•			
	Storm Control			•			
	Port Security			•			
	SSH & SSL			•			
	DoS Defend			•			
	Dynamic ARP Inspection			•			
	IEEE 802.1X Authentication			•			
System Management	Guest VLAN			•			
	SNMP			V1/V2c/V3			
	RMON			Group 1,2,3,9			
	Command Line Interface (CLI)			Telnet			
	IPv6			•			
	Firmware Upgrade			•			
	System Diagnose			VCT/CPU Monitor/Ping/Tracert			
	Web Interface/Syslog/Public MIBS			•			

\*\*The highest operating temperature of TL-SG2428P, TL-SG2210MP, and TL-SL2428P is 50 °C.



# Easy Smart Switches


## Easy Smart Switches

### Simple and Cost-Effective Gigabit Networking for Small Businesses


TP-Link Easy Smart Switches are the perfect upgrade from Unmanaged Switches. Configuration is simple with the Easy Smart Configuration Utility management software. The switch is equipped with many practical basic features, including Port-based/Tag-based/MTU VLAN, QoS, and IGMP Snooping. Easy Smart Switches provide network administrators with a simple and cost-effective networking solution for small business networks.

## Easily Expand Your Gigabit Network and Save Energy


5/8/16-Port Gigabit Easy Smart Switch



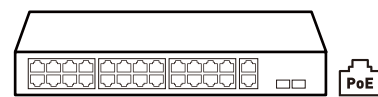
**TL-SG105E**  
5-Port Gigabit Easy Smart Switch  
5 Gigabit RJ45, desktop design



**TL-SG108E**  
8-Port Gigabit Easy Smart Switch  
8 Gigabit RJ45, desktop design



**TL-SG116E**  
16-Port Gigabit Easy Smart Switch  
16 Gigabit RJ45, desktop design



**TL-SG1428PE**  
28-Port Gigabit Easy Smart Switch with 24-Port PoE+  
26 Gigabit RJ45 (Port 1 to Port 24 support 802.3at/af PoE+), 2 Gigabit SFP, 19-inch rackmount



**TL-SG1218MPE**  
18-Port Gigabit Easy Smart Switch with 16-Port PoE+  
16 Gigabit RJ45 (All support 802.3at/af PoE+), 2 Gigabit SFP, 19-inch rackmount



**TL-SG1210MPE**  
10-Port Gigabit Easy Smart Switch with 8-Port PoE+  
9 Gigabit RJ45 (Port 1 to Port 8 support 802.3at/af PoE+), 1 Gigabit SFP, desktop design




**TL-SG1016DE/ TL-SG1024DE**  
16/24-Port Gigabit Easy Smart Switch  
16/24 Gigabit RJ45, 13-inch desktop/rackmount



**TL-SG1016PE**  
16-Port Gigabit Easy Smart Switch with 8-Port PoE+  
16 Gigabit RJ45 (Port 1 to Port 8 support 802.3at/af PoE+), 13-inch desktop/rackmount



**TL-SG105PE/ TL-SG108PE**  
5/8-Port Gigabit Easy Smart Switch with 4-Port PoE+  
5/8 Gigabit RJ45 (Port 1 to Port 4 support 802.3at/af PoE+), desktop design

Product Picture										
Model	TL-SG1428PE	TL-SG1024DE/ TL-SG1016DE	TL-SG1218MPE	TL-SG1016PE	TL-SG116E	TL-SG1210MPE	TL-SG108PE	TL-SG105PE	TL-SG108E/ TL-SG105E	
Product Description	28-Port Gigabit Easy Smart Switch with 24-Port PoE+	24/16-Port Gigabit Easy Smart Switch	18-Port Gigabit Easy Smart Switch with 16-Port PoE+	16-Port Gigabit Easy Smart Switch with 8-Port PoE+	16-Port Gigabit Easy Smart Switch	10-Port Gigabit Easy Smart Switch with 8-Port PoE+	8-Port Gigabit Easy Smart Switch with 4-Port PoE+	5-Port Gigabit Easy Smart Switch with 4-Port PoE+	8/5-Port Gigabit Easy Smart Switch	
Gigabit RJ45 Ports	26 (ports 1-24 support PoE+)	24/ 16	16, all support PoE+	16 (ports 1-8 support PoE+)	16	9 (ports 1-8 support PoE+)	8 (ports 1-4 support PoE+)	5 (ports 1-4 support PoE+)	8/ 5	
Gigabit SFP Ports	2	-	2	-	-	1	-	-	-	
Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3x, 802.1q, 802.1p									
Flow Control	•									
Power Supply	100-240 VAC, 50/60 Hz					External Power Adapter (12 VDC/ 1 A)	External Power Adapter (53.5 VDC/ 2.43 A)	External Power Adapter (53.5 VDC/ 1.31 A)		External Power Adapter (TL-SG108E: 9 VDC/0.6 A TL-SG105E: 5 VDC/0.6 A)
PoE Power Budget	250 W*	-	192 W (v1) 250 W* (v2)	150 W	-	123 W	64 W	65W	-	
PoE Standard	802.3af/at	-	802.3af/at		-	802.3af/at			-	
Fanless	2 Fans	•	2 Fans	1Fan	-	•			-	
Certifications	CE, FCC									
Dimensions (W x D x H)	17.3x7.1x1.7 in (440x180x44 mm)	11.6x7.1x1.7 in (294x180x44 mm)	17.3x7.1x1.7 in (440x180x44 mm)	11.6x7.1x1.7 in (294x180x44 mm)	11.3x4.4x1.0 in (286x112x25 mm)	8.2x5.0x1.0 in (209x126x26 mm)	6.2x4.0x1.0 in (158x101x25 mm)	3.9x3.9x1.0 in (100x98x25 mm)	TL-SG108E: 6.2x4.0x1.0 in (158x101x25 mm) TL-SG105E: 3.9x3.9x1.0 in (100x98x25 mm)	
Operating Temperature	0-50 °C (32-122 °F)	0-40 °C(32-104 °F)		0-50 °C (32-122 °F)	0-40 °C(32-104 °F)				-	
Environment	Storage Temperature: -40-70 °C (-40-158 °F); Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing									
Switching Capacity	56 Gbps	48 Gbps/ 32 Gbps	36 Gbps	32 Gbps	20 Gbps	16 Gbps	10 Gbps	16 Gbps/ 10 Gbps	16 Gbps/ 10 Gbps	
Forwarding Rate	41.7 Mpps	35.7 Mpps/ 23.8 Mpps	26.78 Mpps	23.8 Mpps	14.9 Mpps	11.9 Mpps	7.4 Mpps	11.9 Mpps/ 7.4 Mpps	11.9 Mpps/ 7.4 Mpps	
MAC Address Table	8 K			4 K			2 K	4 K/ 2 K	4 K/ 2 K	
Jumbo Frame	9 KB	10 KB			16 KB				16 KB	
IGMP Snooping	v1/v2/v3									
Link Aggregation (Static LAG)	•									
Port Mirroring	•									
Cable Test	•									
Loop Prevention	•									
VLAN	MTU/Port/802.1Q VLAN									
QoS	4 Queues/Port/802.1p/DSCP									
Rate Limit	•									

\*These products are being upgraded, and the PoE power budget may vary then.

# Unmanaged Rackmount Switches

## Unmanaged Rackmount Switches

### Reliable Wired Network Expansion with Plug and Play

TP-Link's Unmanaged Switches are simple plug and play products, with no software configuration required. They are designed to meet the needs of different network connections, with high performance ports provided that allow for simple and effective expansion of small and medium business networks, making work more efficient.

Note: Please refer to page 23 for unmanaged PoE switches.

## Expand Your Gigabit Network with Plug and Play



**TL-SG1024D**  
24-Port Gigabit Desktop/Rackmount Switch



**TL-SG1016D**  
16-Port Gigabit Desktop/Rackmount Switch



**TL-SG1048**  
48-Port Gigabit Rackmount Switch



**TL-SG1024**  
24-Port Gigabit Rackmount Switch



**TL-SG1016**  
16-Port Gigabit Rackmount Switch



**TL-SG1008**  
8-Port Gigabit Desktop/Rackmount Switch



**TL-SF1016/TL-SF1024/TL-SF1048**  
16/24/48-Port 10/100 Mbps Rackmount Switch



**TL-SF1016DS/TL-SF1024D**  
16/24-Port 10/100 Mbps Desktop/Rackmount Switch

Product Picture						
Model	TL-SG1048	TL-SG1024	TL-SG1016	TL-SG1024D	TL-SG1016D	TL-SG1008
Product Description	48-Port Gigabit Rackmount Switch	24-Port Gigabit Rackmount Switch	16-Port Gigabit Rackmount Switch	24-Port Gigabit Desktop / Rackmount Switch	16-Port Gigabit Desktop / Rackmount Switch	8-Port Gigabit Desktop / Rackmount Switch
Gigabit RJ45 Ports	48	24	16	24	16	8
MAC Address Table	16 K	8 K			16	4K
Switching Capacity	96 Gbps	48 Gbps	32 Gbps	48 Gbps	32 Gbps	16 Gbps
Forwarding Rate	71.4 Mpps	35.7 Mpps	23.8 Mpps	35.7 Mpps	23.8 Mpps	11.9 Mpps
Jumbo Frame	12 KB	10 KB				16 KB
Fanless				•		
Green Technology				•		
Auto-Negotiation / Auto MDI/MDIX				•		
802.3X Flow Control & Back Pressure				•		
QoS	-	802.1p/DSCP				
IGMP Snooping						•
Transfer Method	Store and Forward					
Power Supply	100-240 VAC, 50/60 Hz					
Certifications	CE, FCC					
Dimensions (W × D × H)	17.3x8.7x1.7 in (440x220x44 mm)	17.3x7.1x1.7 in (440x180x44 mm)		11.6x7.1x1.7 in (294x180x44 mm)		
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing					

Product Picture					
Model	TL-SF1048	TL-SF1024	TL-SF1016	TL-SF1024D	TL-SF1016DS
Product Description	48-Port 10/100 Mbps Rackmount Switch	24-Port 10/100 Mbps Rackmount Switch	16-Port 10/100 Mbps Rackmount Switch	24-Port 10/100 Mbps Desktop/Rackmount Switch	16-Port 10/100 Mbps Desktop/Rackmount Switch
10/100 Mbps RJ45 Ports	48	24	16	24	16
MAC Address Table	16 K	8 K			
Switching Capacity	9.6 Gbps	4.8 Gbps	3.2 Gbps	4.8 Gbps	3.2 Gbps
Forwarding Rate	7.14 Mpps	3.57 Mpps	2.38 Mpps	3.57 Mpps	2.38 Mpps
Jumbo Frame	10 KB	2 KB			
Fanless				•	
Green Technology				•	
Auto Negotiation / Auto MDI / MDIX				•	
Flow Control & Back Pressure				•	
Transfer Method	Store and Forward				
Power Supply	100-240 VAC, 50/60 Hz				
Certifications	CE, FCC				
Dimensions (W × D × H)		17.3x7.1x1.7 in (440x180x44 mm)		11.6x7.1x1.7 in (294x180x44 mm)	
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing				

# Unmanaged Desktop Switches

## Unmanaged Desktop Switches Brings Connectivity and Flexibility to Your Desktop

TP-Link's Unmanaged Desktop Switches are simple plug and play products, providing an easy way to expand your wired network. Plug-and-play setup and green technology, allow you to enjoy a smooth, reliable and energy-efficient network experience, instantly.


-   
Plug and Play
-   
Gigabit Ports\*
-   
Durable Metal Casing\*
-   
Compact Desktop Design
-   
Traffic Prioritization\*
-   
Green Technology

\*These features vary in different models, please check the details in the next pages  
Note: Please refer to page 23 for unmanaged PoE switches.


### JetStream Switches



TL-SG105 (5 ports)  
TL-SG108 (8 ports)  
TL-SG116 (16 ports)

 **Gigabit Ethernet**  
Support 10/100/1000 Mbps Speeds


 **Compact Metal Housing**  
Steel Casing and Desktop Design


 **Traffic Prioritization**  
Support 802.1p/DSCP QoS

 **Multi-Cast Optimization**  
Support IGMP Snooping



TL-SG1005D (5 ports)  
TL-SG1008D (8 ports)

 **Gigabit Ethernet**  
Support 10/100/1000 Mbps Speeds


 **Compact Plastic Housing**  
Plastic Casing and Desktop Design

 **Traffic Prioritization**  
Support 802.1p/DSCP QoS



TL-SF1005D (5 ports)  
TL-SF1008D (8 ports)

 **Fast Ethernet**  
Support 10/100 Mbps Speeds

 **Compact Plastic Housing**  
Plastic Casing and Desktop Design



TL-SF1016 (16 ports)  
TL-SF1024M (24 ports)


 **Fast Ethernet**  
Support 10/100 Mbps Speeds

 **Compact Plastic Housing**  
Plastic Casing and Desktop Design


### LiteWave Switches



LS105G (5 ports)  
LS108G (8 ports)


 **Gigabit Ethernet**  
Support 10/100/1000 Mbps Speeds

 **Compact Metal Housing**  
Steel Casing and Desktop Design

 **Traffic Prioritization**  
Support 802.1p/DSCP QoS




LS1005G (5 ports)  
LG1008G (8 ports)


 **Gigabit Ethernet**  
Support 10/100/1000 Mbps Speeds




 **Compact Plastic Housing**  
Plastic Casing and Desktop Design









LS1005 (5 ports)  
LS1008 (8 ports)

 **Fast Ethernet**  
Support 10/100 Mbps Speeds

 **Compact Plastic Housing**  
Plastic Casing and Desktop Design

	JetStream Gigabit Switches		JetStream Fast Ethernet Switches
Product Picture			
Model	TL-SG105/TL-SG108/TL-SG116	TL-SG1005D/TL-SG1008D	TL-SF1005D/TL-SF1008D/TL-SF1016D/TL-SF1024M
Product Description	5/8/16-Port Gigabit Desktop Switch	5/8-Port Gigabit Desktop Switch	5/8/16/24-Port 10/100 Mbps Desktop Switch
Gigabit RJ45 Ports	5/8/16	5/8	-
10/100 Mbps RJ45 Ports	-	-	5/8/16/24
MAC Address Table	2 K/4 K/8 K	2 K/4 K	2 K/2 K/2 K/8 K
Switching Capacity	10/16/32 Gbps	10 Gbps/16 Gbps	1.0 Gbps/1.6 Gbps/3.2 Gbps/4.8 Gbps
Forwarding Rate	7.4 Mpps/11.9 Mpps/23.8 Mpps	7.4 Mpps/11.9 Mpps	0.74 Mpps/1.19 Mpps/2.38 Mpps/3.57 Mpps
Jumbo Frame	16 KB/16 KB/10 KB	16 KB	2 KB
Fanless		•	
Green Technology		•	
Auto Negotiation / Auto MDI/MDIX		•	
Flow Control & Back Pressure		•	
QoS	802.1p/DSCP		-
IGMP Snooping	•		-
Transfer Method	Store and Forward		
Power Supply	External Power Adapter (TL-SG105: 5 VDC/0.6 A & TL-SG108: 9 VDC/0.6 A TL-SG116: 12 VDC/1 A)	External Power Adapter (TL-SG1005D: 5 VDC/0.6 A TL-SG1008D: 9 VDC/0.6 A)	External Power Adapter (TL-SF1005D & TL-SF1008D & TL-SF1016D: 5 VDC/0.6 A TL-SF1024M: 9 VDC/0.6 A)
Certifications	CE, FCC		
Housing	Steel Shell	Plastic Shell	
Dimensions (W × D × H)	TL-SG116: 11.3x4.4x1.0 in (286x112x25 mm) TL-SG108: 6.2x4.0x1.0 in (158x102x25 mm) TL-SG105: 3.9x3.9x1.0 in (100x98x25 mm)	TL-SG1008D: 7.1x3.5x1.0 in (180x90x25.5 mm) TL-SG1005D: 5.5x3.5x0.9 in (140x88x23 mm)	TL-SF1024M: 8.7x5.0x1.7 in (222x126x42 mm) TL-SF1016D: 7.9x5.6x1.6 in (201x143x41 mm) TL-SF1008D: 5.3x3.1x0.9 in (135x79x23 mm) TL-SF1005D: 4.1x2.8x0.9 in (103x70x22 mm)
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing		

	LiteWave Gigabit Switches				LiteWave Fast Ethernet Switches	
Product Picture						
Model	LS105G	LS108G	LS1005G	LS1008G	LS1005	LS1008
Product Description	5/8-Port Gigabit Desktop Switch		5/8-Port Gigabit Desktop Switch		5/8-Port 10/100 Mbps Desktop Switch	
Gigabit RJ45 Ports	5	8	5	8	-	-
10/100 Mbps RJ45 Ports	-		-		5	8
MAC Address Table	2 K	4 K	2 K	4 K	2 K	
Switching Capacity	10 Gbps	16 Gbps	10 Gbps	16 Gbps	1.0 Gbps	1.6 Gbps
Forwarding Rate	7.4 Mpps	11.9 Mpps	7.4 Mpps	11.9 Mpps	0.7 Mpps	1.2 Mpps
Jumbo Frame	16 KB				2 KB	
Fanless					•	
Green Technology					•	
Auto Negotiation / Auto MDI/MDIX					•	
Flow Control & Back Pressure					•	
QoS	802.1p/DSCP				-	
IGMP Snooping					-	
Transfer Method	Store and Forward					
Power Supply	External Power Adapter (LS105G: 5 VDC/0.6 A & LS108G: 9 VDC/0.6 A)		External Power Adapter (LS1005G: 5 VDC/0.6 A & LS1008G: 9 VDC/0.6 A)		External Power Adapter (5 VDC/0.6 A)	
Certifications	CE, FCC				CE	
Housing	Steel Shell		Plastic Shell			
Dimensions (W × D × H)	3.9x3.9x1.0 in (99.8x98x25 mm)	6.2x3.9x1.0 in (158x99.1x25 mm)	3.5x2.8x0.9 in (90x72x23 mm)	5.0x2.6x0.9 in (127x66.5x23 mm)	3.3x1.8x0.9 in (83.6x45.7x22.8 mm)	4.9x1.9x0.9 in (124.6x48.7x22.8 mm)
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing					

# Power over Ethernet

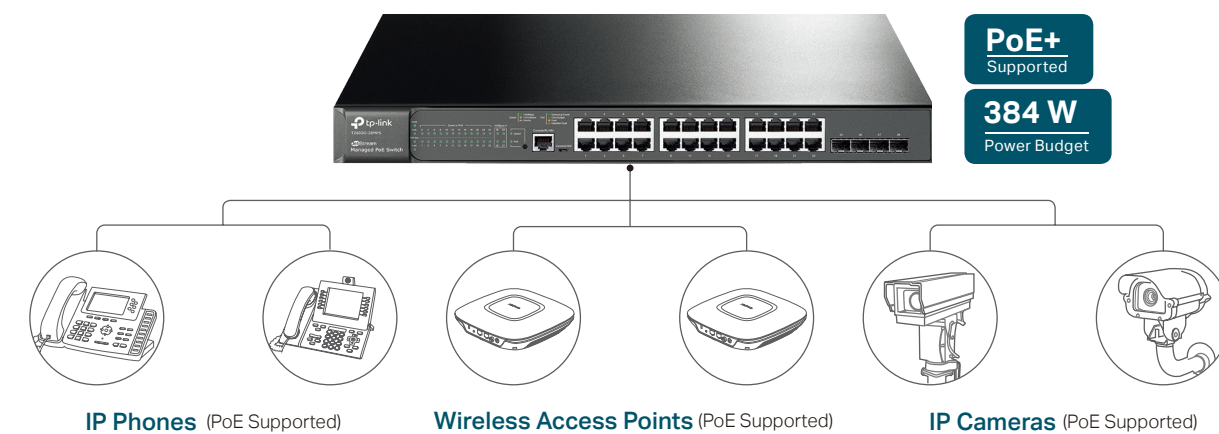
TP-Link's Power over Ethernet (PoE) Switches can automatically detect and supply power to IEEE 802.3at/af compliant Powered Devices (PDs). In this setup, electrical power is transmitted along with data in a single cable.

## Power over Ethernet PoE Solution

TP-Link's Power over Ethernet (PoE) Switches are specifically designed to meet either the 802.3af standard, or the 802.3at PoE plus standard for powering network devices. Electrical power is transmitted along with data in a single cable, allowing users to expand their networks to places where there are no power outlets. TP-Link provides both managed and unmanaged PoE switches, which could be used to connect and power Omada access points. With PoE, installation of network devices such as APs, IP cameras, IP phones, and other PoE enabled devices in hard-to-reach outdoor, and remote areas is simplified.

### Typical PoE Application

JetStream 24-Port Gigabit L2 Managed PoE+ Switch with 4 SFP Slots



### What does TP-Link PoE Bring to You



#### Comprehensive Selection

Managed (L2, Smart, Easy Smart) and Unmanaged PoE switches, PoE adapters, PoE injectors, PoE splitters, and PoE access points are provided.



#### Extend Mode

Supports up to 250 m\* data and power transmission range, especially ideal for surveillance cameras.



#### Priority Mode

Guarantees the quality of sensitive applications like video monitor by prioritizing the data of certain ports.



#### Isolation Mode

One-click Isolation Mode easily divides traffic for downlink ports to avoid snooping and tampering, and to isolate broadcast storm for higher security and performance.



#### Intelligent Power Management

Ensures the high priority port's power supply and protects the device from power overload operation.



#### Flexible Deployment

Freedom from fixed power outlets provides more placement options and allows for deployment in complex environments.

\*Extend mode supports up to 250 meters' PoE power supply for surveillance cameras. The speed of the ports in extend mode will downgrade to 10 Mbps. The actual transmission distance may vary due to power consumption of PoE-powered devices or the cable quality and type.

# How to Choose PoE Switches

## Power Consumption per Port

Choose the PoE standard of switches according to the power consumption of powered devices.  
802.3af: max 15.4 W  
802.3at: max 30 W

## Total PoE Power Budget

Powered devices come with a variety of different wattage demands and the sum total must be less than the switches' total PoE Budget. Power consumption and number of powered devices, line loss, and additional reserved power budget should be considered.



### 01 Forwarding Rate

Estimate the data traffic according to the powered devices, then determine to choose the PoE switches with Fast Ethernet or Gigabit Ethernet ports.

### 02 Ports Number

Check that the amount of ports on the switch are enough to connect all your network devices, and need to consider the effective PoE ports.

### 04 Management Demands

Choose managed or unmanaged PoE switches considering the actual network management demands.

## TP-Link PoE Switches

Model	T2600G-28MPS	T1600G-52PS	TL-SG2428P	TL-SG2210MP	TL-SG2210P	TL-SL2428P	TL-SG1428PE	TL-SG1218MPE	TL-SG1210MPE	TL-SG1016PE	TL-SG108PE	TL-SG105PE
Layer	L2 Managed		Smart						Easy Smart			
Port	GE		GE				FE		GE			
PoE Standard	802.3af/at		802.3af/at						802.3af/at			
PoE Port	24x PoE+	48x PoE+	24x PoE+	8x PoE+	8x PoE+	24x PoE+	24x PoE+	16x PoE+	8x PoE+	8x PoE+	4x PoE+	4x PoE+
PoE Power Budget	384 W	384 W	250 W	150 W	58 W	192 W (v3) 250 W* (v4)	250 W*	192 W (v1) 250 W* (v2)	123 W	150 W	64 W	65 W

Model	TL-SG1218MP	TL-SG1210MP	TL-SG1008MP	TL-SG1210P	TL-SG1008P	TL-SG1005P	TL-SG1005LP
Layer	Unmanaged						
Port	GE						
PoE Standard	802.3af/at						
PoE Port	16x PoE+	8x PoE+	8x PoE+	8x PoE+	4x PoE+	4x PoE+	4x PoE+
PoE Power Budget	250 W*	123 W	153 W	63 W	64 W	65 W	40 W

Model	TL-SL1226P	TL-SL1218P	TL-SL1218MP	TL-SL1210MP	TL-SF1009P	TL-SF1008P	TL-SF1008LP	TL-SF1006P	TL-SF1005P	TL-SF1005LP
Layer	Unmanaged									
Port	FE									
PoE Standard	802.3af/at				802.3af		802.3af/at			802.3af
PoE Port	24x PoE+	16x PoE+	16x PoE+	8x PoE+	8x PoE+	4x PoE+	4x PoE+	4x PoE+	4x PoE+	4x PoE+
PoE Power Budget	250 W	150 W*	192 W (v1) 250 W* (v2)	120 W*	65 W	66 W	41 W	67 W	67 W	41 W
Extend Mode	•	•	•	•	•	•	•	•	•	•
Priority Mode	•	•	•	-	•	•	•	•	•	•
Isolation Mode	•	•	-(v1) •(v2)	•	•	-	-	-	-	-

\*These products are being upgraded, and the PoE power budget may vary then.

Product Picture											
Model	T2600G-28MPS	T1600G-52PS	TL-SG2428P***	TL-SG2210MP***	TL-SG2210P	TL-SL2428P	TL-SG1428PE	TL-SG1218MPE	TL-SG1210MPE		
Layer	L2 Managed	Smart				Easy Smart					
Product Description	24-Port Gigabit L2 Managed PoE+ Switch with 4 SFP Slots	48-Port Gigabit Smart PoE+ Switch with 4 SFP Slots	28-Port Gigabit Smart Switch with 24-Port PoE+	10-Port Gigabit Smart Switch with 8-Port PoE+	8-Port Gigabit Smart PoE+ Switch with 2 SFP Slots	24-Port 10/100 Mbps + 4-Port Gigabit Smart Switch with 24-Port PoE+	28-Port Gigabit Easy Smart Switch with 24-Port PoE+	18-Port Gigabit Easy Smart Switch with 16-Port PoE+	10-Port Gigabit Easy Smart Switch with 8-Port PoE+		
Version	V4	V4	V1	V1	V3	V4	V1	V2	V1		
Hardware	10/100 Mbps RJ45 Ports	-				24, all support PoE+		-			
	Gigabit RJ45 Ports	24, all support PoE+	48, all support PoE+	24, all support PoE+	8, all support PoE+	8, all support PoE+	4	26 (ports 1-24 support PoE+)	18 (ports 1-16 support PoE+)	9 (ports 1-8 support PoE+)	
	Gigabit SFP Ports	4		2		2 (Combo)		2	2 (v1) 2 (Combo, v2)	1	
	Console Port	1 (RJ45), 1 (Micro-USB)		-							
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3ad, 802.3x, 802.1Q, 802.1p, 802.1d, 802.1w, 802.1s, 802.1x, 802.3at, 802.3af						IEEE 802.3i, 802.3u, 802.3ab, 802.3x, 802.1Q, 802.1p, 802.3at, 802.3af			
	Flow Control	•									
	Power Supply	100-240 VAC, 50/60 Hz				53.5 W/1.31 A External Adapter		100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz		53.5 W 2.43 A External Adapter
	Fanless	2 Fans	3 Fans	2 Fans	1 Fan	•		2 Fans	2 Fans		•
	Dimensions (W x D x H)	17.3x13x1.7 in (440x330x44 mm)	17.3x13x1.7 in (440x330x44 mm)	17.3x8.7x1.7 in (440x220x44 mm)	11.6x7.1x1.7 in (294x180x44 mm)	8.2x4.9x1.0 in (209x126x26 mm)	17.3x7.1x1.7 in (440x180x44 mm)	17.3x7.1x1.7 in (440x180x44 mm)	17.3x7.1x1.7 in (440x180x44 mm)	8.2x5.0x1.0 in (209x126x26 mm)	
	Operating Temperature	0-40 °C (32-104 °F)		0-50 °C (32-122 °F)		0-40 °C (32-104 °F)		0-50 °C (32-122 °F)	0-50 °C (32-122 °F)	0-40 °C (v1) 0-50 °C (v2)	0-40 °C (32-104 °F)
Environment	Storage Temperature: -40-70 °C (-40-158 °F); Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing										
PoE	PoE Standard	802.3af/at									
	PoE Port	24x PoE+	48x PoE+	24x PoE+	8x PoE+	8x PoE+	24x PoE+	24x PoE+	16x PoE+	8x PoE+	
	PoE Power Budget	384 W	384 W	250 W	150 W	58 W	192 W (v3) 250 W* (v4)	250 W*	192 W (v1) 250 W* (v2)	123 W	
Performance	Switch Capacity	56 Gbps	104 Gbps	56 Gbps	20 Gbps		12.8 Gbps	56 Gbps	36 Gbps	20 Gbps	
	Forwarding Rate	41.7 Mpps	77.4 Mpps	41.7 Mpps	14.9 Mpps		9.5 Mpps	41.7 Mpps	26.8 Mpps	14.9 Mpps	
	MAC Address Table	16 K	16 K	8 K				8 K		4 K	
	Jumbo Frame	9 KB				9 KB		10 KB	16 KB		
	IGMP Snooping	V1/V2/V3									
L2 Features	STP/RSTP/MSTP	•									
	Loopback Detection	•									
	VLAN	802.1Q/MAC/Protocol/Private*/Voice VLAN						Tag-based VLAN/802.1Q			
	QoS	8 Queues, Port/802.1p/IP DSCP QoS						4 Queues, Port/802.1p/IP DSCP QoS			
	Rate Limit	•									
	Port Isolation	•									
	Port Mirroring	•									
	Link Aggregation	Static LAG, LACP						Static LAG			
Security	DHCP Snooping	•									
	Access Control List	•									
	IP+MAC+PORT+VID Binding	•									
	Storm Control	•									
	Port Security	•									
	SSH & SSL	•									
System Management	DoS Defend	•									
	Dynamic ARP Inspection	•									
	SNMP	V1/V2c/V3									
	RMON	Group 1, 2, 3, 9									
	Command Line Interface (CLI)	Telnet									
	IPv6	•									
	Firmware Upgrade	HTTP/TFTP									
System Diagnose	VCT/Loopback Detection/CPU Monitor/Ping/Tracert										
Web Interface/SYS LOG/MIBS	•										
	Web Interface/MIBS										

\*These products are being upgraded, and the PoE power budget may vary then.

\*\*Only T2600G-28MPS supports private VLAN.

\*\*\*TL-SG2428P and TL-SG2210MP are compatible with TP-Link Omada SDN, and could be centrally managed by Omada centralized management platform.

Product Picture											
Model	TL-SG1016PE	TL-SG108PE	TL-SG105PE	TL-SG1218MP	TL-SG1210MP	TL-SG1008MP	TL-SG1210P	TL-SG1008P	TL-SG1005P	TL-SG1005LP	
Layer	Easy Smart			Unmanaged							
Product Description	16-Port Gigabit Easy Smart Switch with 8-Port PoE+	8-Port Gigabit Easy Smart Switch with 4-Port PoE+	5-Port Gigabit Easy Smart Switch with 4-Port PoE+	18-Port Gigabit Rackmount Switch with 16-Port PoE+	10-Port Gigabit Desktop Switch with 8-Port PoE+	8-Port Gigabit Desktop/Rackmount Switch with 8-Port PoE+	10-Port Gigabit Desktop Switch with 8-Port PoE+	8-Port Gigabit Desktop Switch with 4-Port PoE+	5-Port Gigabit Desktop Switch with 4-Port PoE+	5-Port Gigabit Desktop Switch with 4-Port PoE+	
Version	V2	V3	V1	V1	V1	V2	V1	V4	V2	V1	
Hardware	10/100 Mbps RJ45 Port	-									
	Gigabit RJ45 Ports	16 (ports 1-8 support PoE+)	8 (ports 1-4 support PoE+)	5 (ports 1-4 support PoE+)	18 (ports 1-16 support PoE+)	9 (ports 1-8 support PoE+)	8, all support	9 (ports 1-8 support PoE+)	8 (ports 1-4 support PoE+)	5 (ports 1-4 support PoE+)	5 (ports 1-4 support PoE+)
	Gigabit SFP Slot	-			2 (combo)	1	-	1	-		
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3x, 802.1Q, 802.1p, 802.3at, 802.3af			IEEE 802.3i, 802.3u, 802.3ab, 802.3x, 802.1p, 802.3at, 802.3af						
	Flow Control	-									
	Power Supply	100-240 VAC, 50/60 Hz	53.5 W 1.31 A External Adapter		100-240 VAC, 50/60 Hz	53.5 W 2.43 A External Adapter	100-240 VAC, 50/60 Hz	53.5 W 1.31 A External Adapter		53.5 W/0.81 A External Adapter	
	Fanless	1 Fan	-		2 Fans	-	1 Fan	-			
	Dimensions (W x D x H)	11.6x7.1x1.7 in (294x180x44 mm)	6.2x4.0x1.0 in (158x101x25 mm)	3.9x3.9x1.0 in (100x98x25 mm)	17.3x7.1x1.7 in (440x180x44 mm)	8.2x5.0x1.0 in (209x126x26 mm)	11.6x7.1x1.7 in (294x180x44 mm)	8.2x5.0x1.0 in (209x126x26 mm)	6.7x3.9x1.1 in (171x98x27 mm)	3.9x3.9x1.0 in (100x98x25 mm)	3.9x3.9x1.0 in (100x98x25 mm)
	Operating Temperature	0-50 °C (32-122 °F)	0-40 °C (32-104 °F)		0-50 °C (32-122 °F)	0-40 °C (32-104 °F)	0-50 °C (32-122 °F)	0-40 °C (32-104 °F)			
	Environment	Storage Temperature: -40-70 °C (-40-158 °F); Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing									
PoE	PoE Standard	802.3af/at									
	PoE Port	8x PoE+	4x PoE+	4x PoE+	16x PoE+	8x PoE+	8x PoE+	8x PoE+	4x PoE+	4x PoE+	4x PoE+
	PoE Power Budget	150 W	64 W	65 W	250 W*	123 W	153 W	63 W	64 W	65 W	40 W
Performance	Switch Capacity	32 Gbps	16 Gbps	10 Gbps	36 Gbps	20 Gbps	16 Gbps	20 Gbps	16 Gbps		16 Gbps
	Forwarding Rate	23.8 Mpps	11.9 Mpps	7.44 Mpps	26.8 Mpps	14.9 Mpps	11.9 Mpps	14.9 Mpps	11.9 Mpps		7.44 Mpps
	MAC Address Table	8 K	4 K	2 K	8 K	4 K				2 K	
	Jumbo Frame	10 KB	16 KB		10 KB	16 KB				16 KB	
L2 Features	IGMP Snooping	v1/v2/v3			v1/v2						
	STP/RSTP/MSTP	-									
	Loopback Detection	-									
	VLAN	Tag-based VLAN/802.1Q									
	QoS	4 Queues, Port/802.1p/IP DSCP QoS					802.1p/DSCP QoS				
	Rate Limit	-									
	Port Mirroring	-									
	Link Aggregation	Static LAG									
Security	Access Control List	-									
	IP+MAC+PORT+VID Binding	-									
	Storm Control	-									
	Port Security	-									
	SSH & SSL	-									
	DoS Defend	-									
System Management	Dynamic ARP Inspection	-									
	SNMP	-									
	RMON	-									
	Command Line Interface (CLI)	-									
	Firmware Upgrade	HTTP									
	System Diagnose	-									
Web Interface/SYS LOG/MIBS	Web Interface/MIBS										

\*These products are being upgraded, and the PoE power budget may vary then.

Product Picture											
Model	TL-SL1226P	TL-SL1218P	TL-SL1218MP	TL-SL1210MP	TL-SF1009P	TL-SF1008P	TL-SF1008LP	TL-SF1006P	TL-SF1005P	TL-SF1005LP	
Layer	Unmanaged										
Product Description	24-Port 10/100Mbps + 2-Port Gigabit Unmanaged PoE+ Switch	16-Port 10/100Mbps + 2-Port Gigabit Rackmount Switch with 16-Port PoE+	16-Port 10/100Mbps + 2-Port Gigabit Rackmount Switch with 16-Port PoE+	8-Port 10/100Mbps + 2-Port Gigabit Desktop Switch with 8-Port PoE+	9-Port 10/100Mbps Desktop Switch with 8-Port PoE+	8-Port 10/100Mbps Desktop Switch with 4-Port PoE+	8-Port 10/100Mbps Desktop Switch with 4-Port PoE	6-Port 10/100Mbps Desktop Switch with 4-Port PoE+	5-Port 10/100Mbps Desktop Switch with 4-Port PoE+	5-Port 10/100Mbps Desktop Switch with 4-Port PoE	
Version	V1	V1	V2	V1	V1	V6	V1	V1	V2	V1	
Hardware	10/100 Mbps RJ45 Port	24, all support PoE+	16, all support PoE+	16, all support PoE+	8, all support PoE+	9 (ports 1-8 support PoE+)	8 (ports 1-4 support PoE+)	8 (ports 1-4 support PoE)	6 (ports 1-4 support PoE+)	5 (ports 1-4 support PoE+)	
	Gigabit RJ45 Ports	2	2	2	1	-					
	Gigabit SFP Slot	2 (Combo)	1 (Combo)	2 (Combo)	1	-					
	Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3x, 802.3at, 802.3af				IEEE 802.3i, 802.3u, 802.3x, 802.3at, 802.3af		IEEE 802.3i, 802.3u, 802.3x, 802.3af		IEEE 802.3i, 802.3u, 802.3x, 802.3af	
	Flow Control	-									
	Power Supply	100-240 VAC, 50/60 Hz			53.5 W 2.43 A External Adapter	53.5 W 1.31 A External Adapter		53.5 W 0.81 A External Adapter	53.5 W 1.31 A External Adapter	53.5 W 1.31 A External Adapter	53.5 W 0.81 A External Adapter
	Fanless	2 Fans	2 Fans	2 Fans	-						
	Certifications	CE, FCC									
	Dimensions (W x D x H)	17.3x7.1x1.7 in (440x180x44 mm)			8.2x5.0x1.0 in (209x126x26 mm)	6.7x3.9x1.1 in (171x98x27 mm)			6.2x4.0x1.0 in (158x101x25 mm)	3.9x3.9x1.0 in (100x98x25 mm)	
	Operating Temperature	0-50 °C (32-122 °F)		0-40 °C (32-104 °F) (v1) 0-50 °C (32-122 °F) (v2)		0-40 °C (32-104 °F)					
Environment	Storage Temperature: -40-70 °C (-40-158 °F); Operating Humidity: 10-90% RH non-condensing; Storage Humidity: 5-90% RH non-condensing										
PoE	PoE Standard	802.3af/at					802.3af	802.3af/at		802.3af	
	PoE Port	24x PoE+	16x PoE+	16x PoE+	8x PoE+	8x PoE+	4x PoE+	4x PoE+	4x PoE+	4x PoE+	
	PoE Power Budget	250 W	150 W*	192 W (v1) 250 W* (v2)	120 W*	65 W	66 W	41 W	67 W	67 W	41 W
Performance	Extend Mode	-									
	Priority Mode	-									
	Isolation Mode	-									
	Switch Capacity	8.8 Gbps	7.2 Gbps		5.6 Gbps	1.8 Gbps	1.6 Gbps		1.2 Gbps	1 Gbps	
	Forwarding Rate	6.55 Mpps	5.36 Mpps		4.16 Mpps	1.34 Mpps	1.2 Mpps		0.89 Mpps	0.7 Mpps	
	MAC Address Table	8 K			2 K	2 K					
	Jumbo Frame	10 KB			16 KB	2 KB					
	Software Features	IGMP Snooping	-								
Loopback Detection		-									
VLAN		-									
QoS		-									
Rate Limit		-									
Port Mirroring		-									
Link Aggregation		-									
Storm Control		-									
Firmware Upgrade	-										

\*These products are being upgraded, and the PoE power budget may vary then.

# PoE Adapters



TP-Link's Power over Ethernet (PoE) Adapters deliver your power and data through one Ethernet cable, allowing you to expand your network to those places where there are no power lines or outlets. Among TP-Link's family of PoE Adapters, TL-POE150S and TL-POE10R support 802.3af standard, making them highly compatible with all 802.3af compliant devices.

### PoE Adapter

PoE Adapter for Simple Energy Supply

### PoE Injector

#### TL-POE150S

- Support IEEE 802.3af standard
- Support Gigabit speed
- Auto MDI/MDIX, Auto Negotiation
- LED indicator for PWR, Link/Act
- Desktop design for ultra convenience and flexibility
- Plug and play, no software configuration required



- #### TL-POE200 PoE Kit
- Carries power & data over a single Ethernet cable up to 100 meters
  - Selectable power output
  - Plug-and-Play



- #### TL-POE10R PoE Splitter
- 802.3af compliant
  - Selectable power output
  - Gigabit speed support



- #### TL-POE4824G PoE Adapter
- Passive PoE
  - Gigabit network ports
  - Plug-and-Play



- #### TL-POE2412G PoE Adapter
- Passive PoE
  - Gigabit speed support
  - Plug-and-Play

Product Picture					
Model	TL-POE150S	TL-POE10R	TL-POE200	TL-POE2412G	TL-POE4824G
Product Description	PoE Injector	PoE Splitter	PoE Kit (PoE Injector + PoE Splitter)	PoE Adapter	PoE Adapter
RJ45 Ports	1 Gigabit RJ45 LAN port 1 Gigabit RJ45 PoE port	1 10/100 Mbps RJ45 LAN port 1 10/100 Mbps RJ45 PoE port	1 10/100 Mbps RJ45 LAN port 1 10/100 Mbps RJ45 PoE port	1 Gigabit RJ45 LAN port 1 Gigabit RJ45 PoE port	1 Gigabit RJ45 LAN Port 1 Gigabit RJ45 PoE Port
Standards	IEEE802.3, IEEE802.3u, IEEE802.3ab, 802.3af, CSMA/CD, TCP/IP		IEEE802.3, IEEE802.3u, CSMA/CD, TCP/IP	IEEE802.3, IEEE802.3u	
Power	Input: 48 VDC, 0.5 A	Output: 5/9/12 VDC	Input: 100-240 VAC Output: 12/9/5 VDC	Input: 100-240 V 0.4 A Output: 24 V 0.5 A	Input: 100-240 V 0.8 A Output: 48 V 0.5 A
Certifications	CE, FCC				
Dimensions (W x D x H)	3.2 x 2.1 x 0.9 in (80.8 x 54 x 24 mm)			3.4 x 1.7 x 1.4 in (85.8 x 43.9 x 35 mm)	4.3 x 2.3 x 1.5 in (110 x 57 x 38.8 mm)
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing				

# Accessories

Product Picture			
Model	TX432	TXC432-CU1M	TXC432-CU3M
Product Description	10-Gigabit 2-Port SFP+ Module	1M Direct Attach SFP+ Cable	3M Direct Attach SFP+ Cable
Standard	IEEE 802.3ae, IEEE 802.3aq, SFF-8431	-	-
Dimensions/Length	5.2 x 3.6 x 1.2 in (131 x 92 x 31mm)	1 m	3 m
Max Power Consumption	6.57 W with Fiber	-	-
Certifications	CE, FCC		
Data Rate	-	10 Gbps	
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing		

## SFP Modules

Product Picture						
Model	TL-SM311LM	TL-SM311LS	TL-SM321A	TL-SM321B	TXM431-SR	TXM431-LR
Product Description	Multi-mode SFP Module	Single-mode SFP Module	1000Base-BX WDM Bi-Directional SFP Module	1000Base-BX WDM Bi-Directional SFP Module	10GBase-SR SFP+ LC Transceiver	10GBase-LR SFP+ LC Transceiver
Cable	Multi-mode Fiber	Single-mode Fiber		Multi-mode Fiber	Single-mode Fiber	
Fiber Type	50/125 μm or 62.5/125 μm Multi-mode	9/125 μm Single-mode		50/125 μm or 62.5/125 μm Multi-mode	9/125 μm Single-mode	
MAX. Cable Length	550 m	10 km		300 m	10 km	
Standard	IEEE 802.3z			IEEE 802.3ae, SFF-8431, SFF-8472		
Data Rate	1.25 Gbps			10 Gbps		
Port Type	LC/UPC			LC/UPC		
Wave Length	850 nm	1310 nm	TX: 1550 nm RX: 1310 nm	TX: 1310 nm RX: 1550 nm	850 nm	1310 nm
Power Supply	3.3 V					
Certifications	CE, FCC					
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing					

## Media Converters

Product Picture							
Model	MC200CM	MC210CS	MC220L	MC100CM	MC110CS	MC111CS	MC112CS
Product Description	Gigabit Ethernet Media Converter	Gigabit Ethernet Media Converter	Gigabit Ethernet Media Converter	Fast Ethernet Media Converter	Fast Ethernet Media Converter	WDM Fast Ethernet Media Converter	WDM Fast Ethernet Media Converter
Interface	1 Gigabit SC Port		1 SFP Port	1 100 Mbps SC Port			
Standards	1 10/100/1000 Mbps RJ45 Port (Auto MDI/MDIX)			1 10/100 Mbps RJ45 Port (Auto MDI/MDIX)			
Standards	IEEE 802.3i, 802.3u, 802.3ab, 802.3z						
Standards	IEEE 802.3i, 802.3u						
Transmission Media	Multi-mode Fiber, Cat-5	Single-mode Fiber, Cat-5	Multi/Single-mode Fiber, Cat-5	Multi-mode Fiber, Cat-5	Single-mode Fiber, Cat-5		Single-mode Fiber, Cat-5
Wave Length	850 nm	1310 nm	Depends on the SFP Modules used	1310 nm	1310 nm	TX:1550 nm RX:1310 nm	TX:1310 nm RX:1550 nm
Transmission Distance	0.55 km	15 km	0.55 km/10 km	2 km	20 km		
Certifications	FCC, CE						
Dimensions (W x D x H)	3.7 x 2.9 x 1.1 in (94.5 x 73.0 x 27.0 mm)						
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing						

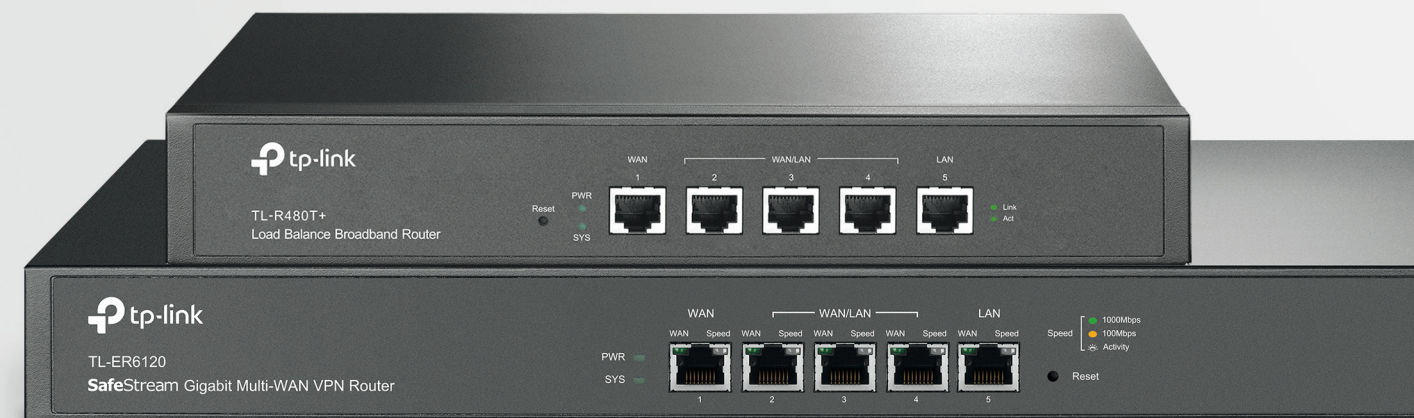
## Redundant Power Supply

Product Picture	
Model	PSM150-AC
Product Description	150 W AC Power Supply Module
AC Power Input	100-240 V~ 50/60 Hz 2.5 A
DC Power Output	12 V/12.5 A
Maximum Power Output	150 W
LEDs	Power, PS OK, Fault
Dimensions	4.7 x 8.4 x 1.6 in (120 x 213 x 41.8 mm)
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing

# SafeStream Router

Keeping a network safe from attacks and unauthorized access is key to the success of any business, now more than ever before. TP-Link's SafeStream VPN Routers provide an ideal VPN solution to protect your network against attacks and unauthorized access.

- VPN Routers
- Load Balance Broadband Routers



## SafeStream Routers

### SafeStream VPN Routers

Flexible and Highly secure VPN Networks for Small and Medium-sized Businesses


Keeping a network safe from attacks and unauthorized access is key to the success of any business, now more than ever before. TP-Link's SafeStream VPN Routers provide an ideal VPN solution to protect your network against attacks and unauthorized access.

### Load Balance Broadband Router

Suitable for Demanding Enterprise Environments with Numerous Users

Load balance broadband routers from TP-Link possess excellent data processing capabilities and multiple powerful functions including Load Balance, Access Control, IM/P2P Blocking, DoS Defense, Bandwidth Control, and Session Limit, which meet the needs of small and medium enterprises, hotels, and communities with large volumes of users.

### SafeStream Gigabit Multi-WAN VPN Router



- Multiple WAN
- VPN Support (IPsec/PPTP/L2TP)
- Intelligent Load Balance
- VLAN
- Link Backup
- Bandwidth Control
- Access Control
- Captive Portal

**TL-ER6120**  
Rackmount, 1 Gigabit WAN Port, 3 Gigabit WAN/LAN Ports, 1 Gigabit LAN Port



**TL-ER6020**  
SafeStream Gigabit Multi-WAN VPN Router

Rackmount, 1 Gigabit WAN Port,  
3 Gigabit WAN/LAN Ports,  
1 Gigabit LAN Port



**TL-R600VPN**  
SafeStream Gigabit Multi-WAN VPN Router

Desktop, 1 Gigabit WAN Port,  
3 Gigabit WAN/LAN Ports,  
1 Gigabit LAN Port



**TL-ER5120**  
Gigabit Load Balance Broadband Router




Rackmount, 1 Gigabit WAN Port,  
3 Gigabit WAN/LAN Ports,  
1 Gigabit LAN Port






**TL-R480T+ / TL-R470T+**  
Load Balance Broadband Router

1 10/100 Mbps WAN Port, 3 10/100 Mbps  
WAN/LAN Ports, 1 10/100 Mbps LAN Port



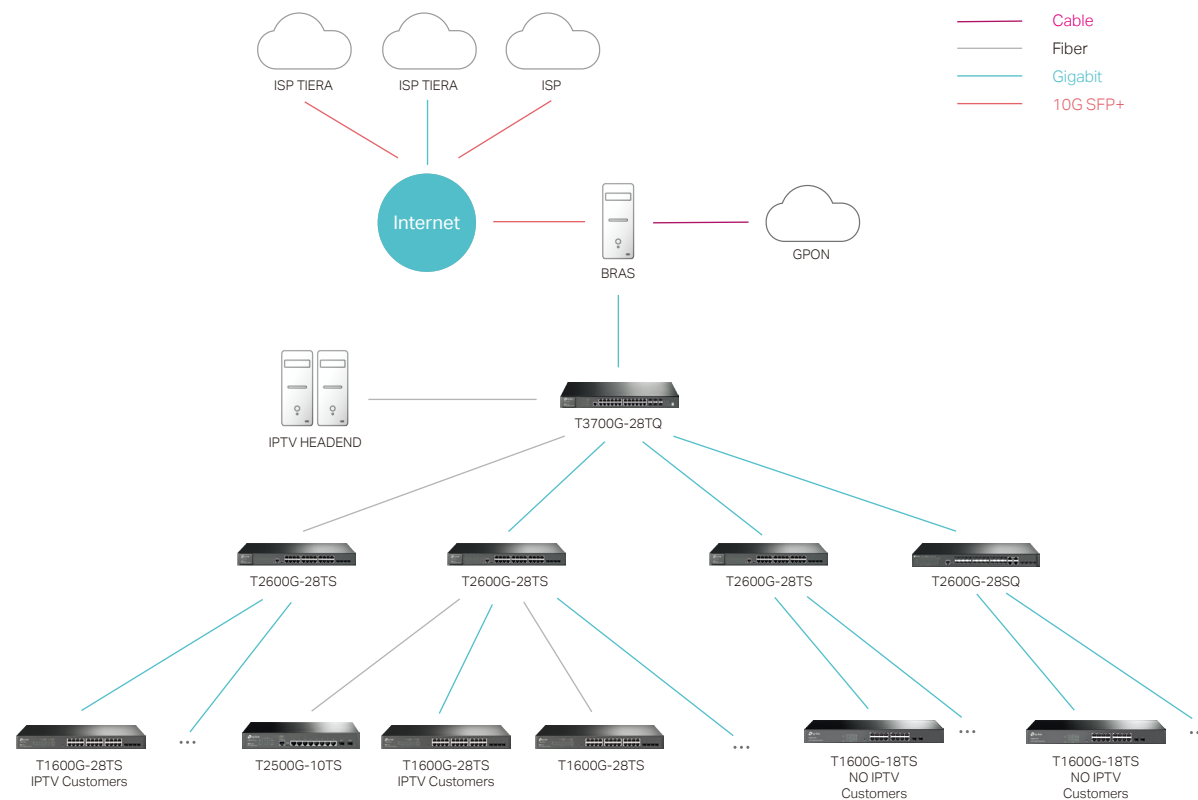
Product Picture				
Model		TL-ER6120	TL-ER6020	TL-R600VPN
Product Description		SafeStream Gigabit Multi-WAN VPN Router	SafeStream Gigabit Multi-WAN VPN Router	SafeStream Gigabit Multi-WAN VPN Router
Hardware	Interface	1 Gigabit WAN port, 3 Gigabit WAN/LAN ports, 1 Gigabit LAN port		
	VPN Encryption Accelerator	•		
	Power Supply	100-240 VAC, 50/60 Hz		100-240 VAC, 50/60 Hz
	Certifications	CE, FCC		
	Dimensions (W x D x H)	17.3 x 7.1 x 1.7 in (440 x 180 x 44 mm)	11.6 x 7.1 x 1.7 in (294 x 180 x 44 mm)	8.2 x 4.9 x 1.0 in (209 x 126 x 26 mm)
Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing			
Performance	Concurrent Sessions	150,000	40,000	20,000
	NAT Throughput	950 Mbps	940 Mbps	680 Mbps
	IPsec VPN Throughput	373 Mbps	99 Mbps	13 Mbps
	WAN Connection Type	Dynamic/Static IP, PPPoE, PPTP, L2TP, Dual Access		Dynamic/Static IP, PPPoE, PPTP, L2TP, Dual Access
IPsec VPN	IPsec VPN Tunnel	100	64	20
	Authentication	MD5/SHA1		
	Encryption	DES, 3DES, AES128, AES192, AES256		
	IPsec NAT Traversal (NAT-T)	•		
	Dead Peer Detection (DPD)	•		
	Perfect Forward Secrecy (PFS)	DH1/DH2/DH5		
PPTP VPN	PPTP VPN Tunnels	50	16	
	PPTP VPN Server	•		
	PPTP VPN Client	•		
	PPTP With MPPE Encryption	•		
L2TP VPN	L2TP VPN Tunnels	50	16	
	L2TP VPN Server	•		
	L2TP VPN Client	•		
	L2TP Over IPsec	•		
Security	Access Control List	•		
	URL/Keyword Filter	•		
	Domain Filter	•		
	DoS Defense	•		
	ARP Inspection	•		
	MAC Filter	•		
Load Balance	Line Backup	•		
	Online Detection	•		
	Smart Load Balance	•		
NAT	One-to-One NAT	•		
	Multiple-nets NAT	•		
	Virtual Server	•		
	Port Triggering	•		
	ALG	•		
Routing	Static Routing	•		
	Policy Routing	•		
QoS	Guarantee Max & Min Bandwidth	•		
	Bandwidth Control By IP/Port	•		
	Session Limit By IP	•		
Web Authentication	Local User Authentication	•		
	Radius Sever Authentication	•		
	Onekey Online	•		
Service	Dynamic DNS	Dyn dns, No-IP, Peanuthull, Comexe		
	UPnP	•		

Product Picture				
Model		TL-ER5120	TL-R480T+	TL-R470T+
Product Description		Gigabit Load Balance Broadband Router	Load Balance Broadband Router	Load Balance Broadband Router
Hardware	Interface	1 Gigabit WAN Port, 3 Gigabit WAN/LAN Ports, 1 Gigabit LAN Port	1 10/100 Mbps WAN Port, 3 10/100 Mbps WAN/LAN Ports, 1 10/100 Mbps LAN Port	
	Power Supply	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	9 VDC/0.6 A
	Certifications	CE, FCC		
	Dimensions (W x D x H)	17.3 x 7.1 x 1.7 in (440 x 180 x 44 mm)	11.6 x 7.1 x 1.7 in (294 x 180 x 44 mm)	8.2 x 4.9 x 1.0 in (209 x 126 x 26 mm)
	Environment	Operating Temperature: 0-40 °C(32-104 °F); Storage Temperature: -40-70 °C (-40-158 °F) Operating Humidity: 10-90% non-condensing; Storage Humidity: 5-90% non-condensing		
Performance	Cocurrent Sessions	150,000	30,000	10,000
	NAT Throughput	800 Mbps	100 Mbps	
	WAN Connection Type	Dynamic/Static IP, PPPoE, PPTP, L2TP, Dual Access	PPPoE, Dynamic, Static IP, PPTP, L2TP	
Network	Rate Limit	•		
	Port Mirroring	•	-	
	Port VLAN	•		
	SNMP	V1/V2c		
	802.1Q VLAN	•		
	IPTV	•		
	IPv6	•		
	Security	Access Control	•	
URL/Keyword Filter		•		
Domain Filter		•		
DoS Defense		•		
ARP Inspection		•		
MAC Filter		•		
Load Balance	Line Backup	•		
	Online Detection	•		
	Smart Load Balance	•		
NAT	One-to-One NAT	•		
	Multiple-nets NAT	•		
	Virtual Server	•		
	Port Triggering	•		
Routing	Static Routing	•		
	Policy Routing	•		
QoS	Guarantee Max & Min Bandwidth	•		
	Bandwidth Control By IP/Port	•		
	Session Limit By IP	•		
Web Authentication	Local User Authentication	•		
	Radius Sever Authentication	•		
	Onekey Online	•		
Service	Dynamic DNS	Dyn dns, No-IP, Peanuthull, Comexe		
	UPnP	•		

# Business Solution for ISP Networks

## Overview

With consumer appetite for fast internet at unprecedented levels, ISPs are looking for more efficient ways to meet demand within an increasingly competitive environment. It has become necessary to install a gigabit-based access layer network to keep up with the demands that come with IPTV and other technologies and an increasing number of customers. TP-Link professional managed and smart switches and routers help ISPs build reliable, secure and fast gigabit wired internet access.



## Solution Benefits

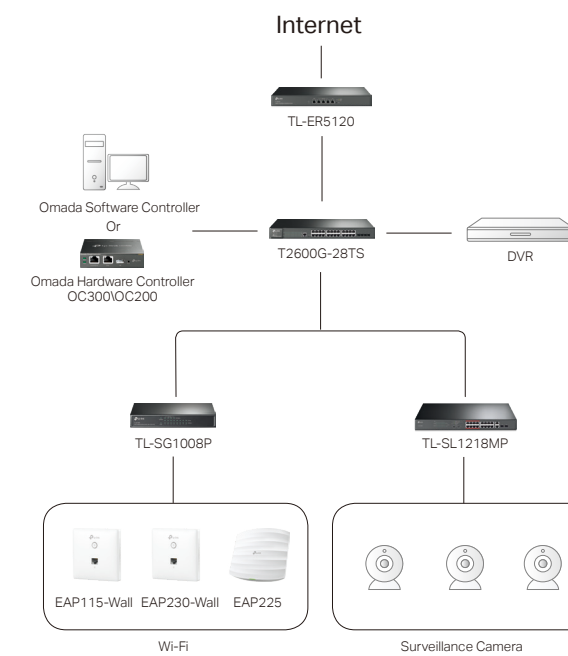
- High-Speed Data Transmission. The core switch is able to support a scalable network with abundant L3 routing protocols and 10Gigabit SFP+ slots enable to provide high-speed data transmission.
- Abundant Layer 3 routing protocols including RIP/OSPF/ECMP/VRRP that support a scalable network.
- Stackable core layer switches offer enhanced capacity while retaining ease of management.
- Abundant security features safeguard the network's various files and sensitive information with consistent stability and security.
- Business-class routers and switches provide abundant access control and load balance features that ensure a safe, reliable experience within a stable network.
- Flexible Management. Jetstream switches support various management methods: intuitive web-based Graphical User Interface (GUI), industry-standard Command Line Interface (CLI), SNMP (v1/v2c/v3) and RMON.

# Business Solution for Surveillance

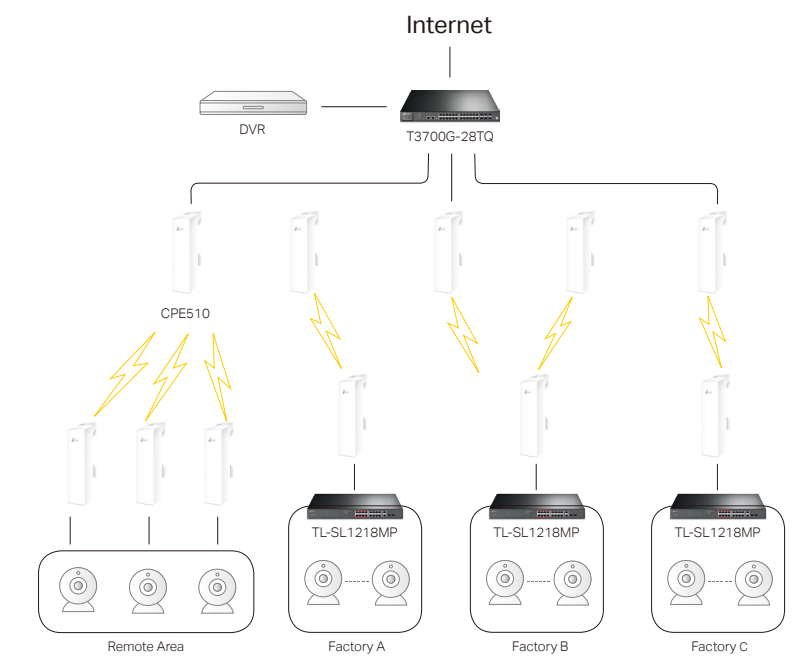
## Overview

As part of the security management system, the network video surveillance system is being used more and more widely in the fields of parks, scenic spots, campuses, and community security. Outdoor parks and scenic spots are generally characterized by large areas and scattered video surveillance equipment. It is inclined to wirelessly transmit monitoring data over long distances, eliminating wiring troubles. The indoor campuses and residential areas require no extra wiring for power supply and simple construction. TP-Link PoE switches provide data and power for IP cameras through a single cable, ideal for small to medium business surveillance systems. TP-Link Pharos broadband is perfect for deployment in areas where wired surveillance systems might not be convenient.

### Small and Medium Business Surveillance



### Outdoor Long-Distance Surveillance



## Solution Benefits

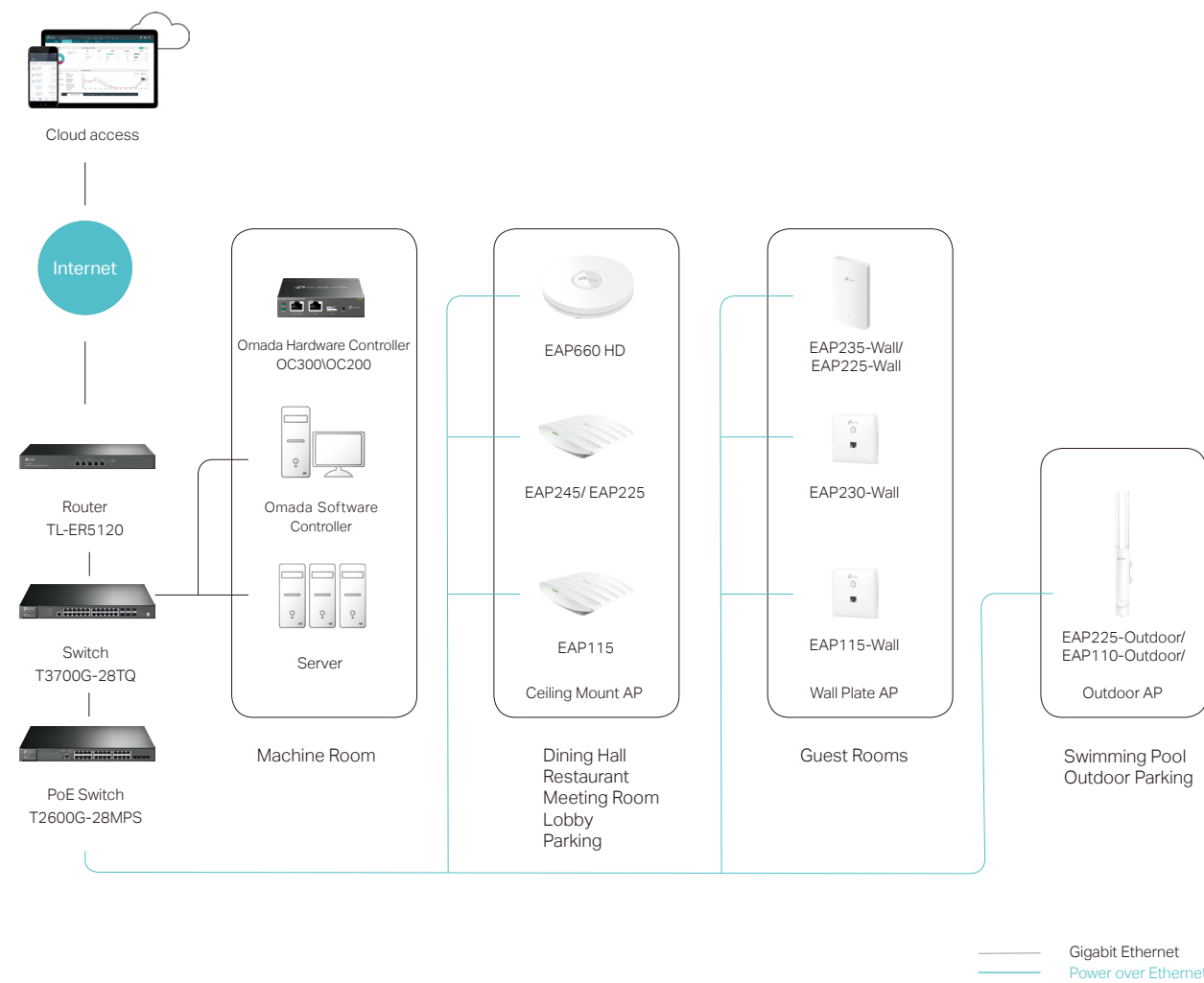
- PoE switches provide data and power for IP cameras and access points through a single cable, eliminating extra wiring troubles.
- PtMP coverage of Pharos broadband provides long distance wireless data transmission, creating a perfect wireless surveillance solution for construction sites, mining sites, logging sites, and more.
- Up to 250 m data and power transmission under extend mode\* specially designed for surveillance system.
- Priority mode\* guarantees the quality of sensitive applications like video monitor.
- High-performance full-gigabit enterprise routers support Facebook Wi-Fi, Web authentication and other authentication functions, and support multiple VPN and online behavior management.
- Full gigabit L3 switch, with gigabit ports and 10G SFP slots, supports dynamic routing, static routing, supports quaternary binding, and has rich VLAN functions.

\*Extend mode and priority mode are supported by certain PoE switches of TP-Link, please refer to page 21 for details.

# Business Solution for Hospitality Networks

## Overview

Wi-Fi is air. It's not an overstatement; it's reality. In any household, a strong, stable wireless network is simply an expectation. That's why whenever we leave town, one of the first things we look for in choosing a hotel is not location or a pool, but Wi-Fi. In fact, the ability to offer convenient connections makes a significant impact on overall customer satisfaction and ratings. Now, TP-Link Business Wi-Fi Solutions allow hotels to build the reliable, cost-effective wireless networks that drive progress and keep guests happy and coming back for another stay.



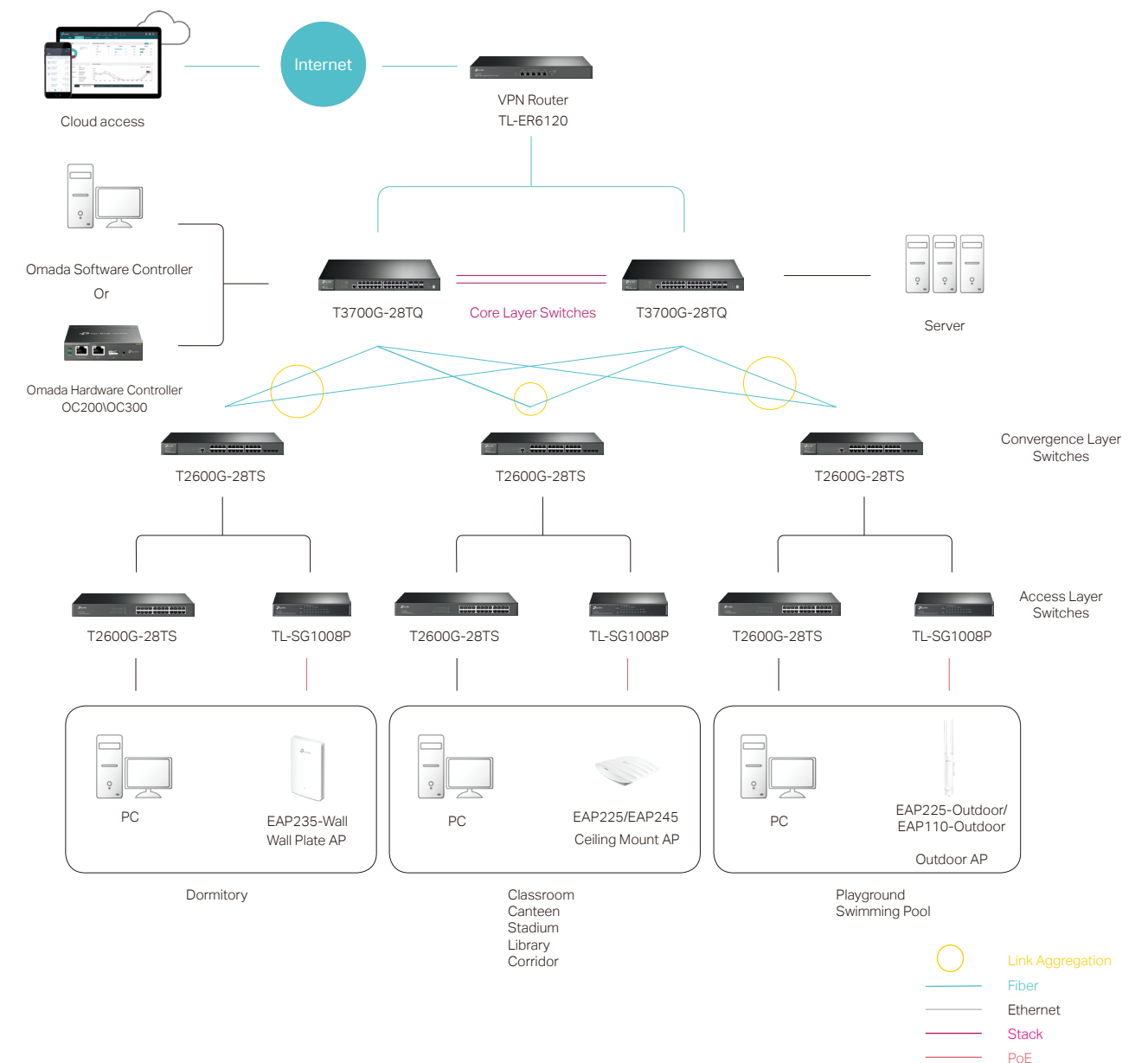
## Solution Benefits

- Wide-ranging indoor and outdoor options deliver comprehensive wireless coverage.
- With the centralized management platform, multiple access points can share the same SSID and wireless configuration to present customers a consistent and fluid Wi-Fi experience.
- To establish a unique Wi-Fi authentication page, the Captive Portal function allows administrators to display discount information, promotional images and other marketing content while securing network access for guests.
- Business-class routers and switches provide abundant access control and load balance features that ensure a safe, reliable experience within a stable network.
- TP-Link business access points blend inconspicuously into any suite, common area to complement a modern decor.

# Business Solution for Education Networks

## Overview

In the modern educational institution, wireless connectivity is as essential as good professors and books. Reliable, secure and convenient Wi-Fi provides students with unlimited access to information to enrich their education. It also allows teachers to access a wider variety of resources that promote more effective learning and development.



## Solution Benefits

- Wide-ranging indoor and outdoor options deliver comprehensive wireless coverage.
- VPN routers allow off-campus students and teachers to access the intranet anytime, anywhere through the VPN router.
- Abundant security features safeguard a campus network's various files and sensitive information with consistent stability and security.
- Centralized management allows network administrators to easily configure and monitor all access points.

## Certification and Training

The TP-Link Certification and Training system is a free online, on-demand training program that provides professional coursework and exams focused on specific technologies. Currently, TPNA for SMB, TPNP for SMB Routing & Switching, and TPNP for SMB Business Wi-Fi are provided. Access professional training to develop your skills and gain certification to enhance your career.



Designed for sales professionals, the TPNA SMB (TP-Link Network Associate for SMB) Certification attests to your acquired advanced network and wireless knowledge. It also certifies that you can explain and differentiate TP-Link SMB products based on criteria such as usage scenarios, configuration methods, software functions, and involved technologies.



Designed for technical professionals, the TPNP (TP-Link Network Professional) SMB Routing & Switching and Business Wi-Fi Certifications attest to your knowledge of Routing & Switching related to TP-Link Switches. Both also certify your ability to deploy indoor and outdoor business Wi-Fi, including assessment, installation, and maintenance.

## TP-Link Partner Program

<https://partner.tp-link.com/>

TP-Link's success as a provider of network solutions has been built on its relationship and unrivalled commitment to its partners. For Value-added Resellers (VARs) and System Integrators (SIs) looking for access to even better deals and tailored support, TP-Link has designed the TP-Link Partner Program to reward loyalty and help grow business.



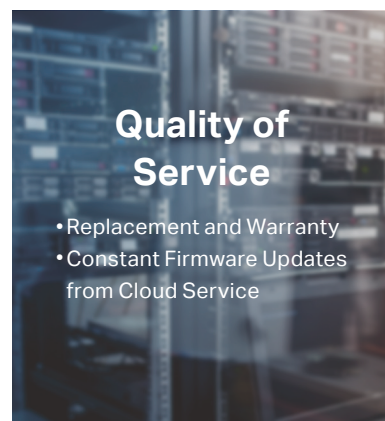
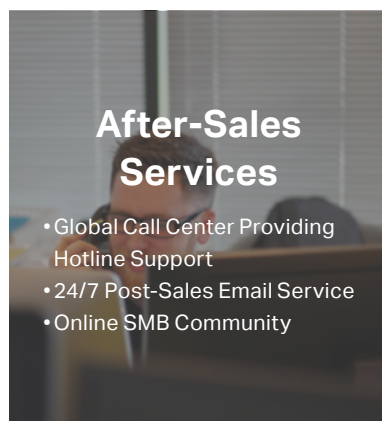
- Deal Registration
- Sales Tools
- Knowledge Base
- Marketing Materials
- Promotions
- Support
- Training & Certification

## Join TP-Link Partner Program, Earn More Margin

*Note: The Partner Program and benefits can vary according to your region. Please contact your local TP-Link representative for more information.*

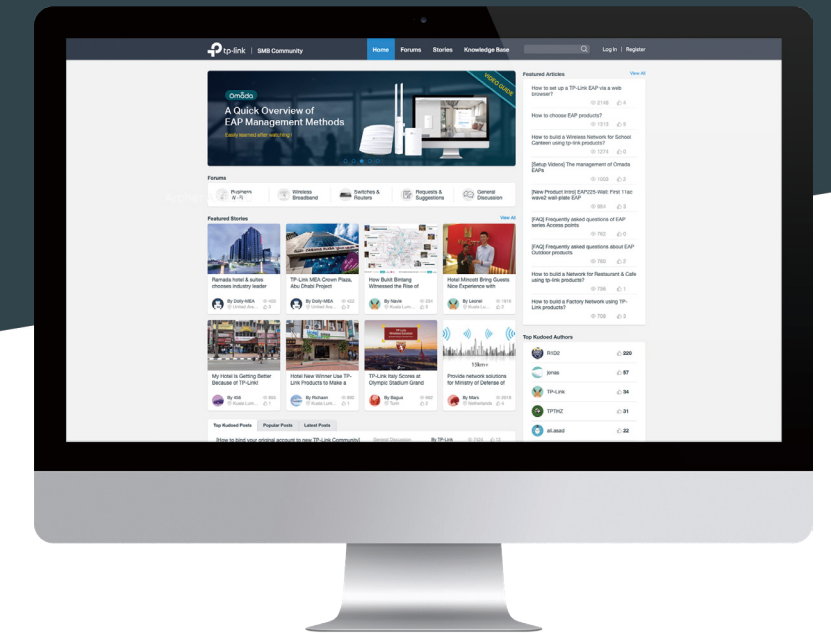
## Excellent Pre- and After-Sales Services

TP-Link provides not only products with outstanding quality but also whole service for complete client satisfaction.



# SMB Community

<https://community.tp-link.com/en/business/>



Technical support, Case sharing,  
Your direct dialogue with TP-Link  
About SMB, we know that you still want to know more...



### Forums

Here, not only are you able to learn more about TP-Link products, but also your question can be answered professionally.



### Stories

Find out how people all around the world are using TP-Link products. Hear about real usage scenarios and find new, imaginative ways to use your products.



### Knowledge Base

Having trouble? Don't worry, all your questions can be answered here. This is a database that provides users with quick information guides.

