







# Specifications


## Hardware Features & Performance

Product Picture				
Model		TL-SG2008 V3	TL-SG2008P	TL-SG2210P V3.20
General	Interface	8 10/100/1000Mbps RJ45 Ports	8 10/100/1000Mbps RJ45 ports	8 10/100/1000Mbps RJ45 Ports 2 Gigabit SFP Slots
	Flash	32 MB		
	DRAM	256 MB		
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber) (only for TL-SG2210P)		
PoE	PoE Standard		802.3af/at	802.3af/at
	PoE Ports	--	4, up to 30 W	8, up to 30 W
	PoE Power Budget		62 W	61 W
Performance	Switching Capacity	16 Gbps	16 Gbps	20 Gbps
	Packet Forwarding Rate	11.90 Mpps		14.88 Mpps
	MAC Address Table	8K		
	Packet Buffer	4.1 Mbit		
	Transmission Method	Store and Forward		
	Number of IP Interfaces	16		
	Number of Static Routers	32 (IPv4, IPv6)		
	Jumbo Frame	9 KB		
Physical & Environmet	Power Supply	12 VDC/1 A External Adapter or Obtain Power from PoE Source	53.5 VDC/1.31 A External Adapter	
	Max Power Consumption	6.4 W (220 V/50 Hz)	7.9 W (220 V/50 Hz) (no PD connected) 69.7 W (220 V/50 Hz) (with 62 W PD connected)	10.3 W (220 V/50 Hz) (no PD connected) 76.5 W (220 V/50 Hz) (with 61 W PD connected)
	Max Heat Dissipation	21.84 BTU/hr (220 V/50 Hz)	26.95 BTU/hr (220 V/50 Hz) (no PD connected) 237.82 BTU/hr (220 V/50 Hz) (with 62 W PD connected)	35.14 BTU/hr (220 V/50 Hz) (no PD connected) 261.02 BTU/hr (220 V/50 Hz) (with 61 W PD connected)
	Standby Power Consumption	2.56 W (220 V/50 Hz)	2.89 W (220 V/50 Hz)	4.99 W (220 V/50 Hz)
	Dimensions (W x D x H)	8.2 × 4.9 × 1.0 in (209 × 126 × 26 mm)		
	Fan Quantity	Fanless		
	Installation	Desktop/Wall-Mounting		
	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)		
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)		
	Operation Humidity	10% to 90% RH, non-condensing		
	Storage Humidity	5% to 90% RH, non-condensing		
	Certification	CE, FCC, RoHS		

## Hardware Features & Performance

Product Picture				
Model		TL-SG2210MP	TL-SG2218	TL-SG2428P
General	Interface	8 10/100/1000Mbps RJ45 Ports 2 Gigabit SFP Slots	16 10/100/1000Mbps RJ45 Ports 2 Gigabit SFP Slots	24 10/100/1000Mbps RJ45 ports 4 Gigabit SFP Slots
	Flash	32 MB		
	DRAM	256 MB		
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber)		
PoE	PoE Standard	802.3af/at	-	802.3af/at
	PoE Ports	8, up to 30 W	-	24, up to 30 W
	PoE Power Budget	150 W	-	250 W
Performance	Switching Capacity	20 Gbps	36 Gbps	56 Gbps
	Packet Forwarding Rate	14.88 Mpps	26.78 Mpps	41.66 Mpps
	MAC Address Table	8K		
	Packet Buffer	4.1 Mbit		
	Transmission Method	Store and Forward		
	Number of IP Interfaces	16		
	Number of Static Routers	32 (IPv4, IPv6)		
	Jumbo Frame	9 KB		
Physical & Environment	Power Supply	100-240V AC, 50/60Hz		
	Max Power Consumption	12.2 W (110 V/60 Hz) (no PD connected) 173.9 W (110 V/60 Hz) (with 150 W PD connected)	12.3 W (220 V/50 Hz)	32.1 W (110 V/60 Hz) (no PD connected) 308.6 W (110 V/60 Hz) (with 250 W PD connected)
	Max Heat Dissipation	41.63 BTU/hr (110 V/60 Hz) (no PD connected) 539.35 BTU/hr (110 V/60 Hz) (with 150 W PD connected)	41.97 BTU/hr	109.53 BTU/hr (110 V/60 Hz) (no PD connected) 1052.94 BTU/hr (110 V/60 Hz) (with 250 W PD connected)
	Standby Power Consumption	8.56 W (110 V/60 Hz)	3.84 W (220 V/50 Hz)	21.96 W (110 V/60 Hz)
	Dimensions (W x D x H)	11.6 x 7.1 x 1.7 in (294 x 180 x 44 mm)	17.3 x 7.1 x 1.7 in (440 x 180 x 44 mm)	17.3 x 8.7 x 1.7 in (440 x 220 x 44 mm)
	Fan Quantity	1	Fanless	2
	Installation	Rackmount/Desktop	Rackmount	Rackmount
	Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)		
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)		
	Operation Humidity	10% to 90% RH, non-condensing		
	Storage Humidity	5% to 90% RH, non-condensing		
	Certification	CE, FCC, RoHS		

## Hardware Features & Performance

Product Picture		
Model		TL-SL2428P V4.20
General	Interface	24 10/100 Mbps RJ45 Ports 2 10/100/1000 Mbps RJ45 Ports 2 Combo Gigabit RJ45/SFP Ports
	Flash	32 MB
	DRAM	256 MB
	Port Standard	IEEE 802.3i:10BASE-T Ethernet; IEEE 802.3u:100BASE-X Fast Ethernet; IEEE 802.3ab:1000BASE-T Gigabit Ethernet; IEEE 802.3z:1000BASE-X Gigabit Ethernet (Optical fiber)
PoE	PoE Standard	802.3af/at
	PoE Ports	24, up to 30 W
	PoE Power Budget	250 W
Performance	Switching Capacity	12.8 Gbps
	Packet Forwarding Rate	9.52 Mpps
	MAC Address Table	Store and Forward
	Packet Buffer	8K
	Transmission Method	4.1 Mbit
	Number of IP Interfaces	16
	Number of Static Routers	32 (IPv4, IPv6)
	Jumbo Frame	9 KB
Physical & Environmet	Power Supply	100-240V AC, 50/60Hz
	Max Power Consumption	18.8 W (220 V/50 Hz) (with no PD connected) 286.7 W (220 V/50 Hz) (with 250 W PD connected)
	Max Heat Dissipation	64.1 BTU/hr (220 V/50Hz) (with no PD connected) 977.6 BTU/hr (220 V/50 Hz) (with 250 W PD connected)
	Standby Power Consumption	15.9 W (220 V/50 Hz)
	Dimensions (W x D x H)	17.3 × 7.1 × 1.7 in (440 × 180 × 44 mm)
	Fan Quantity	2
	Installation	Rackmount
	Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
	Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
	Operation Humidity	10% to 90% RH, non-condensing
	Storage Humidity	5% to 90% RH, non-condensing
	Certification	CE, FCC, RoHS

## Software Features

Model	TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 / TL-SG2210MP / TL-SG2218 / TL-SG2428P / TL-SL2428P V4.20	
SDN Support	<ul style="list-style-type: none"> <li>• Support Omada Hardware Controller (OC200/ OC300), Software Controller, Cloud-Based Controller</li> <li>• Automatic Device Discovery</li> <li>• Batch Configuration</li> <li>• Batch Firmware Upgrading</li> </ul>	<ul style="list-style-type: none"> <li>• Intelligent Network Monitoring</li> <li>• Abnormal Event Warnings</li> <li>• Unified Configuration</li> <li>• Reboot Schedule</li> <li>• ZTP (Zero-Touch Provisioning)*</li> </ul>
L2+ Features	<ul style="list-style-type: none"> <li>• 16 IP Interfaces <ul style="list-style-type: none"> <li>- Support IPv4/IPv6 Interface</li> </ul> </li> <li>• Static Routing <ul style="list-style-type: none"> <li>- 32 IPv4/IPv6 Static Routes</li> </ul> </li> <li>• DHCP Server</li> <li>• DHCP Relay <ul style="list-style-type: none"> <li>- DHCP Interface Relay</li> <li>- DHCP VLAN Relay</li> </ul> </li> <li>• DHCP L2 Relay</li> </ul>	<ul style="list-style-type: none"> <li>• Static ARP</li> <li>• Proxy ARP</li> <li>• Gratuitous ARP</li> </ul>
L2 Features	<ul style="list-style-type: none"> <li>• Link Aggregation <ul style="list-style-type: none"> <li>- Static link aggregation</li> <li>- 802.3ad LACP</li> <li>- Up to 8 aggregation groups and up to 8 ports per group</li> </ul> </li> <li>• Spanning Tree Protocol <ul style="list-style-type: none"> <li>- 802.1D STP</li> <li>- 802.1w RSTP</li> <li>- 802.1s MSTP</li> <li>- STP Security: TC Protect, BPDU Filter/Protect, Root Protect</li> </ul> </li> <li>• Loopback Detection</li> </ul>	<ul style="list-style-type: none"> <li>• Flow Control <ul style="list-style-type: none"> <li>- 802.3x Flow Control</li> </ul> </li> <li>• Mirroring <ul style="list-style-type: none"> <li>- Port Mirroring</li> <li>- CPU Mirroring</li> <li>- One-to-One</li> <li>- Many-to-One</li> <li>- Flow-Based</li> <li>- Ingress/Egress/Both</li> </ul> </li> <li>• Device Link Detect Protocol (DLDP)</li> <li>• 802.1ab LLDP/ LLDP-MED</li> </ul>
L2 Multicast	<ul style="list-style-type: none"> <li>• 511 IPv4, IPv6 shared multicast groups</li> <li>• IGMP Snooping <ul style="list-style-type: none"> <li>- IGMP v1/v2/v3 Snooping</li> <li>- Fast Leave</li> <li>- IGMP Snooping Querier</li> <li>- Static Group Config</li> </ul> </li> <li>• Multicast VLAN Registration (MVR)</li> <li>• Multicast Filtering</li> </ul>	<ul style="list-style-type: none"> <li>• MLD Snooping <ul style="list-style-type: none"> <li>- MLD v1/v2 Snooping</li> <li>- Fast Leave</li> <li>- MLD Snooping Querier</li> <li>- Static Group Config</li> </ul> </li> <li>• Limited IP Multicast (256 profiles and 16 entries per profile)</li> </ul>
VLAN	<ul style="list-style-type: none"> <li>• VLAN Group <ul style="list-style-type: none"> <li>- Max. 4K VLAN Groups</li> </ul> </li> <li>• 802.1Q tag VLAN</li> <li>• MAC VLAN</li> </ul>	<ul style="list-style-type: none"> <li>• Protocol VLAN</li> <li>• GVRP</li> <li>• Voice VLAN</li> </ul>
QoS	<ul style="list-style-type: none"> <li>• 802.1p CoS/DSCP priority</li> <li>• 8 priority queues</li> <li>• Priority Schedule Mode <ul style="list-style-type: none"> <li>- SP (Strict Priority)</li> <li>- WRR (Weighted Round Robin)</li> </ul> </li> <li>• Queue Weight Config</li> </ul>	<ul style="list-style-type: none"> <li>• Bandwidth Control <ul style="list-style-type: none"> <li>- Port/Flow based Rating Limit</li> </ul> </li> <li>• Smoother Performance</li> <li>• Storm Control <ul style="list-style-type: none"> <li>- Multiple Control Modes(kbps/ratio)</li> <li>- Broadcast/Multicast/Unknown-Unicast Control</li> </ul> </li> </ul>

\* Zero-Touch Provisioning is supported when using Omada Cloud-Based Controller

## Software Features

Model	TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 / TL-SG2210MP / TL-SG2218 / TL-SG2428P / TL-SL2428P V4.20	
ACL	<ul style="list-style-type: none"> <li>• Support up to 230 entries</li> <li>• Time-Range               <ul style="list-style-type: none"> <li>- Time Slice</li> <li>- Week Time-Range</li> <li>- Absolute Time-Range</li> <li>- Holiday</li> </ul> </li> <li>• Time-based ACL</li> <li>• MAC ACL               <ul style="list-style-type: none"> <li>- Source MAC</li> <li>- Destination MAC</li> <li>- VLAN ID</li> <li>- User Priority</li> <li>- Ether Type</li> </ul> </li> <li>• IP ACL               <ul style="list-style-type: none"> <li>- Source IP</li> <li>- Destination IP</li> <li>- IP Protocol</li> <li>- TCP Flag</li> <li>- TCP/UDP Source Port</li> <li>- TCP/UDP Destination Port</li> <li>- DSCP/IP TOS</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• IPv6 ACL</li> <li>• Combined ACL</li> <li>• Rule Operation               <ul style="list-style-type: none"> <li>- Permit/Deny</li> </ul> </li> <li>• Policy Action               <ul style="list-style-type: none"> <li>- Mirror</li> <li>- Rate Limit</li> <li>- Redirect</li> <li>- QoS Remark</li> </ul> </li> <li>• ACL Rules Binding               <ul style="list-style-type: none"> <li>- Port Binding</li> <li>- VLAN Binding</li> </ul> </li> <li>• Actions for flows               <ul style="list-style-type: none"> <li>- Mirror (to supported interface)</li> <li>- Redirect (to supported interface)</li> <li>- Rate Limit</li> <li>- QoS Remark</li> </ul> </li> </ul>
Security	<ul style="list-style-type: none"> <li>• AAA</li> <li>• 802.1X               <ul style="list-style-type: none"> <li>- Port based authentication</li> <li>- MAC (Host) based authentication</li> <li>- Authentication Method includes PAP/EAP-MD5</li> <li>- MAB</li> <li>- Guest VLAN</li> <li>- Support Radius authentication and accountability</li> </ul> </li> <li>• IP/IPv6-MAC Binding               <ul style="list-style-type: none"> <li>- 512 Binding Entries</li> <li>- DHCP Snooping</li> <li>- DHCPv6 Snooping</li> <li>- ARP Inspection</li> <li>- ND Detection</li> <li>- ND Snooping</li> </ul> </li> <li>• IP Source Guard               <ul style="list-style-type: none"> <li>- 253 Entries</li> <li>- Source IP+Source MAC</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• IPv6 Source Guard               <ul style="list-style-type: none"> <li>- 183 Entries</li> <li>- Source IPv6 Address+Source MAC</li> </ul> </li> <li>• DoS Defend</li> <li>• DHCP Filter</li> <li>• Static/Dynamic/Permanent Port Security               <ul style="list-style-type: none"> <li>- Up to 64 MAC addresses per port</li> </ul> </li> <li>• Broadcast/Multicast/Unicast Storm Control               <ul style="list-style-type: none"> <li>- kbps/ratio control mode</li> </ul> </li> <li>• Port Isolation</li> <li>• Secure web management through HTTPS with SSLv3/TLS 1.2</li> <li>• Secure Command Line Interface (CLI) management with SSHv1/SSHv2</li> <li>• IP/Port/MAC based access control</li> </ul>

## Software Features

Model	TL-SG2008 V3 / TL-SG2008P / TL-SG2210P V3.20 / TL-SG2210MP / TL-SG2218 / TL-SG2428P / TL-SL2428P V4.20	
IPv6 Support	<ul style="list-style-type: none"> <li>• IPv6 Static Routing and ACL</li> <li>• IPv6 Dual IPv4/IPv6</li> <li>• IPv6 Interface</li> <li>• Multicast Listener Discovery (MLD) Snooping</li> <li>• IPv6 neighbor discovery (ND)</li> <li>• Path maximum transmission unit (MTU) discovery</li> <li>• Internet Control Message Protocol (ICMP) version 6</li> <li>• TCPv6/UDPv6</li> <li>• IPv6 applications               <ul style="list-style-type: none"> <li>- DHCPv6 Client</li> <li>- Ping6</li> <li>- Tracert6</li> <li>- Telnet(v6)</li> <li>- IPv6 SNMP</li> <li>- IPv6 SSH</li> <li>- IPv6 SSL</li> <li>- Http/Https</li> <li>- IPv6 TFTP</li> </ul> </li> </ul>	
Management	<ul style="list-style-type: none"> <li>• Web-based GUI</li> <li>• Command Line Interface (CLI) through telnet</li> <li>• SNMPv1/v2c/v3</li> <li>• SNMP Trap/Inform</li> <li>• RMON (1,2,3,9 groups)</li> <li>• SDM Template</li> <li>• DHCP/BOOTP Client</li> </ul>	<ul style="list-style-type: none"> <li>• Dual Image, Dual Configuration</li> <li>• CPU Monitoring</li> <li>• Cable Diagnostics</li> <li>• EEE</li> <li>• SNTP</li> <li>• System Log</li> </ul>
MIBs	<ul style="list-style-type: none"> <li>• MIB II (RFC1213)</li> <li>• Bridge MIB (RFC1493)</li> <li>• P/Q-Bridge MIB (RFC2674)</li> <li>• Radius Accounting Client MIB (RFC2620)</li> </ul>	<ul style="list-style-type: none"> <li>• Radius Authentication Client MIB (RFC2618)</li> <li>• Remote Ping, Traceroute MIB (RFC2925)</li> <li>• Support TP-Link private MIBs</li> <li>• RMON MIB(RFC1757, rmon 1,2,3,9)</li> </ul>

# Ordering Information

Host Switch	
Model	Description
TL-SG2008 V3	JetStream 8-Port Gigabit Smart Switch
TL-SG2008P	JetStream 8-Port Gigabit Smart Switch with 4-Port PoE+
TL-SG2210P V3.20	JetStream 10-Port Gigabit Smart Switch with 8-Port PoE+
TL-SG2210MP	JetStream 10-Port Gigabit Smart Switch with 8-Port PoE+
TL-SG2218	JetStream 16-Port Gigabit Smart Switch with 2 SFP Slots
TL-SG2428P	JetStream 28-Port Gigabit Smart Switch with 24-Port PoE+
TL-SL2428P V4.20	JetStream 24-Port 10/100Mbps + 4-Port Gigabit Smart Switch with 24-Port PoE+

SFP Modules	
Model	Description
TL-SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 20km distance
TL-SM311LM	Gigabit SFP module, Multi-mode, LC interface, Up to 550m distance
TL-SM321A	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 20 km
TL-SM321A-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1550 nm/RX: 1310 nm, 2 km
TL-SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 20 km
TL-SM321B-2	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX: 1310 nm/RX: 1550 nm, 2 km

MC Series Media Converter	
Model	Description
MC210CS	Gigabit Single-Mode Media Converter, up to 20 km, chassis mountable
MC200CM	Gigabit multi-mode SC SFP Transceiver, up to 550 m, chassis mountable
MC200L	Gigabit SFP slot supporting mini-GBIC modules, chassis mountable
TL-MC1400	14-slot power supply chassis for TP-LINK MC Series Media Converter, 19-inch rack-mountable

FC Series Media Converter	
Model	Description
TL-FC111A-20	100Mbps Single-Mode WDM Media Converter, up to 20 km, TX:1550nm, RX:1310nm, chassis mountable
TL-FC111B-20	100Mbps Single-Mode WDM Media Converter, up to 20 km, TX:1310nm, RX:1550nm, chassis mountable
TL-FC311A-2	Gigabit Single-Mode WDM Media Converter, up to 2 km, TX:1550nm, RX:1310nm, chassis mountable
TL-FC311B-2	Gigabit Single-Mode WDM Media Converter, up to 2 km, TX:1310nm, RX:1550nm, chassis mountable
TL-FC311A-20	Gigabit Single-Mode WDM Media Converter, up to 20 km, TX:1550nm, RX:1310nm, chassis mountable
TL-FC311B-20	Gigabit Single-Mode WDM Media Converter, up to 20 km, TX:1310nm, RX:1550nm, chassis mountable
TL-FC1400	14-slot power supply chassis for TP-LINK FC Series Media Converter, 19-inch rack-mountable