



# TP-LINK

## 48-Port Gigabit Smart Switch with 4 SFP Slots

TL-SG2452

### ■ Overview

TP-LINK Gigabit Smart Switch TL-SG2452 is equipped with 48 gigabit RJ45 ports and 4 SFP slots. The switch provides high performance, enterprise-level QoS, useful security strategies and rich layer 2 management features.

TP-LINK Gigabit Smart Switch TL-SG2452 is a cost-effective product solution for the small and medium business. TL-SG2452 has useful security features. The Storm Control feature protects against broadcast, multicast and unknown unicast storm. Quality of Service (QoS, L2 to L4) provides enhanced traffic management capabilities to move your data smoother and faster. Anymore, the easy-to-use web management interfaces, along with SNMP and RMON, mean faster setup and configuration with less downtime. For workgroup and departments requiring cost-sensitive layer 2 switch and gigabit capability, TP-LINK Gigabit Smart Switch TL-SG2452 provides you the ideal access-edge solution.

**Layer 2 Features**

- Link Aggregation Control Protocol (LACP)
- Static Link Aggregation
- 512 VLANs
- Port Isolation
- STP/RSTP/MSTP
- IGMP Snooping

**Quality of Service**

- 4 priority queues
- Support IEEE 802.1P
- DSCP QoS
- Rate limit feature

**Security Strategies**

- Port Security
- Access Control List(L2~L4 ACL)
- Storm Control
- SSL and SSH encryptions
- DHCP Filtering

**Management**

- Web-based GUI
- Command Line Interface
- SNMP v1/v2c/v3
- RMON (1,2,3,9 group)



- Details:<http://www.tp-link.com/support/Localesupport.asp>
- German/Austrian/Swiss users are not included



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## 48-Port Gigabit Smart Switch with 4 FTP Slots

### TL-SG2452

#### Advanced QoS Features

To integrate voice, data and video service on one network, the switch applies rich QoS policies. Administrator can designate the priority of the traffic based on a variety of means including Port Priority, 802.1P Priority and DSCP Priority, to ensure that voice and video are always clear, smooth and jitter free.

#### Abundant Layer 2 features

For more application of layer 2 switches, TL-SG2452 supports a complete lineup of layer 2 features, including 802.1Q tag VLAN, Port Isolation, Port Mirroring, STP/RSTP/MSTP, LACP and 802.3x Flow Control function. Any more, the switches provide advanced features for network maintenance such as Loop Back Detection, Cable Diagnostics and IGMP Snooping. IGMP snooping ensures the switch intelligently forward the multicast stream only to the appropriate subscribers while IGMP throttling & filtering restrict each subscriber on a port level to prevent unauthorized multicast access.

#### Enterprise Level Management Features

TL-SG2452 is easy to use and manage. It supports various user-friendly standard management features, such as intuitive web-based Graphical User Interface(GUI), Command Line Interface(CLI) through Telnet Management Mode. SNMP (v1/2/3) and RMON support enables the switch to be polled for valuable status information and send traps on abnormal events.

## Specifications

### Hardware Features & Performance

Product Picture		
Model		TL-SG2452
Physical Features		
Connector	10/100/1000Mbps RJ45 Ports	48
	Gigabit SFP Ports	4
Power Supply		100-240VAC, 50/60Hz
FAN Quantity		2
Certifications		CE, FCC
Dimensions (W × D × H)		17.3 × 10.2 × 1.7 in. (440 × 260 × 44 mm), 19-inch Rack mount Steel Case, 1U Height
Environment		Operating Temperature: 0°C~40°C (32°F~104°F); Storage Temperature: -40°C~70°C (-40°F~158°F) Operating Humidity: 10%~90% non-condensing; Storage Humidity: 5%~90% non-condensing
Performance		
Switch Capacity		104Gbps
Forwarding Rate		77.4Mpps
MAC Address Table		8k
Package Buffer Memory		1.5MB
Jumbo Frame		10240 Bytes

### Software Features

#### L2 Switching Features

- **Link Aggregation**
    - Support 802.3ad LACP
    - Support static link aggregation
    - Up to 6 aggregation groups, containing 4 ports per group
  - **Spanning Tree Protocol(STP)**
    - IEEE 802.1D Spanning Tree Protocol
    - IEEE 802.1W Rapid Spanning Tree Protocol
    - IEEE 802.1S Multiple Spanning Tree Protocol
    - STP Security: Loop back detection, TC Protect, BPDU Filter/Protect, Root Protect
  - **Multicast**
    - Support IGMP Snooping V1/V2/V3, up to 256 groups
    - Support multicast VLANs, IGMP Immediate Leave, Unknown IGMP Throttling, IGMP Filtering, Static Multicast IP
  - **VLAN**
    - Support up to 512 VLANs simultaneously (out of 4K VLAN IDs)
- IEEE 802.3x flow control for Full Duplex mode and backpressure for Half Duplex mode**

### Quality of Service (QoS)

- Support 802.1p CoS/DSCP priority
- Support 4 priority queues
- Queue scheduling: SP, WRR, SP+WRR
- Port/Flow- based Rate Limiting
- Voice VLAN assure voice applications much smoother performance

### Advanced Security Strategies

- Support Broadcast, Multicast and Unknown Unicast Storm Control
- Static/Dynamic Port Security (MAC-based)
- Access Control List (ACL)-L2~L4 package filtering based on source and destination MAC address, IP address, TCP/UDP ports
- SSL and SSH encryptions

### Management

- Support Web-based GUI management mode
- Command Line Interface(CLI) through Telnet Management Mode
- SNMP v1/v2c/v3
- RMON (1, 2, 3, 9 groups)
- DHCP/BOOTP Client
- CPU Monitoring
- Port Mirroring (Many to One)

- Cable Diagnostics feature
- Ping/Tracert feature
- System Log

### Ethernet Protocols

- IEEE 802.3i 10BASE-T
- IEEE 802.3u 100BASE-TX/FX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3x Flow control
- IEEE 802.1p QoS
- IEEE 802.1q VLANs / VLAN tagging
- IEEE 802.1d Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree (RSTP)
- IEEE 802.1s Multiple Spanning Tree (MSTP)

### MIBs

- MIB II (RFC1213)
- Interface MIB (RFC2233)
- Ethernet Interface MIB (RFC1643)
- Bridge MIB (RFC1493)
- P/Q-Bridge MIB (RFC2674)
- RMON MIB (RFC2819)
- RMON2 MIB (RFC2021)
- Remote Ping, Traceroute MIB (RFC2925)
- Support TP-LINK private MIBs

## Ordering Information

Host Switch	
Product Model	Description
TL-SG2452	48-Port Gigabit Smart Switch with 4 SFP Slots
Router	
Product Model	Description
TL-ER6120	SafeStream Gigabit Dual-WAN VPN Router
TL-ER5120	Gigabit Load Balance Broadband Router
SFP Modules	
Product Model	Description
TL-SM311LS	Gigabit SFP module, Single-mode, LC interface, Up to 10km 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:1550nm/RX:1310nm, 10km
TL-SM321B	Gigabit WDM Bi-Directional SFP Module, single-mode, LC connector, TX:1310nm/RX:1550nm, 10km
Media Converter	
Product Model	Description
MC210CS	Gigabit single-mode SC SFP Transceiver, up to 15Km, chassis mountable
MC200CM	Gigabit multi-mode SC SFP Transceiver, up to 550m, chassis mountable
MC220L	Gigabit SFP slot supporting mini-GBIC modules, chassis mountable
MC1400	14-slot power supply chassis for TP-LINK Media Converter, 19-inch rack-mountable