TP-LINK JetStream™
Gigabit L2 Managed Switch

TL-SG3216 / TL-SG3424

◨ Overview

TP-LINK JetStream™ gigabit L2 managed switch 3 series family consists of two switches: TL-SG3216 with 16 10/100/1000Mbps ports and TL-SG3424 with 24 10/100/1000Mbps ports. The switches provide high performance, enterprise-level QoS, advanced security strategies and rich layer 2 management features. Moreover, the switches also come equipped with multiple combo SFP slots, expanding your network flexibly. The JetStream™ gigabit L2 managed switch 3 series is cost-effective for the ideal small and medium business solution.

TP-LINK these L2 managed switches have robust security and management features. The IP-MAC-Port-VID Binding and Access Control List (ACL) functions protect against broadcast storm, ARP and Denial-of-Service(DoS) attacks, etc. 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 CLI, 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 JetStream™ L2 managed Switches TL-SG3216 and TL-SG3424 provide you the ideal access-edge solution.

Layer 2 Features

- Link Aggregation Control Protocol (LACP)
- 4K VLAN
- GVRP (GARP VLAN Registration Protocol)
- STP/RSTP/MSTP
- IGMP Snooping
- Port Isolation

Quality of Service

- 4 priority queues
- Support IEEE 802.1P
- DSCP QoS

Security Strategies

- IP-MAC-Port-VID Binding
- Access Control List (L2~L4 ACL)
- 802.1x and RADIUS Authentication
- Support DoS defend
- Port Security
- IPv6 Compliance[1]
- SSL and SSH encryptions

Management

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

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Global technical support

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

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TL-SG3216 / TL-SG3424

Secure Networking

TP-LINK these JetStream™ 3 series switches provide IP-MAC-Port-VID Binding, Port Security, Storm control and DHCP Snooping protecting against broadcast storms, ARP attacks, etc. They integrate some typical DoS attacks to select. You can protect these attacks more easily ever than 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. Moreover, the switches support 802.1X authentication, which is used in conjunction with a RADIUS server to require some authentication information before access to the network is allowed. Guest VLAN function supports to enable the non-802.1X clients to access the specific network resource.

Advanced QoS features

To integrate voice, data and video service on one network, the switches apply rich QoS policies. Administrator can designate the priority of the traffic based on a variety of means including IP or MAC address, TCP or UDP port number, etc, to ensure that voice and video are always clear, smooth and jitter free. In conjunction with the Voice VLAN the switches supporting, the voice applications will operate with much smoother performance.

Abundant Layer 2 features

For more application of layer 2 switches, TL-SG3216 and TL-SG3424 support a complete lineup of layer 2 features, including 802.1Q tag VLAN, Port Mirroring, STP/RSTP/MSTP, Link Aggregation Control Protocol 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

TP-LINK JetStream™ 3 series switches family are easy to use and manage. They support various user-friendly standard 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 (v1/2/3) and RMON support enables the switch to be polled for valuable status information and send traps on abnormal events. In addition, integrated NDP/NTDP protocol, the switches support to be managed by the commander switch through IP clustering function more easily.

⬜ Specifications

Physical features & Performance

Product Picture			
Model		TL-SG3424	TL-SG3216
Physical Features			
Connector	**10/100/1000Mbps RJ45 Ports**	24	16
	Combo Gigabit SFP slots²	4	2
	Console Port	1	1
Power Supply		100-240VAC, 50/60Hz	100-240VAC, 50/60Hz
FAN Quantity		0	0
Certification		CE, FCC	CE, FCC
Dimensions(W × D × H)		17.3 × 8.7 × 1.7 in. (440 × 220 × 44 mm)	17.3 × 8.7 × 1.7 in. (440 × 220 × 44 mm)
		19-inch Rack mount Steel Case, 1U Height	
Environment		Operating Temperature: 0℃~40℃ (32°F~104°F), Storage Temperature: -40℃~70℃ (-40°F~158°F) Operating Humidity: 10%~90% non-condensing, Storage Humidity: 5%~90% non-condensing	
Performance			
Switch Capacity		48Gbps	32Gbps
Forwarding Rate		35.7Mpps	23.8Mpps
MAC Address Table		8k	8k
Packet Buffer Memory		512KB	512KB
Jumbo Frame		10240 Bytes	10240 Bytes

Software Features

L2 Switching Features

- **Link Aggregation**
  - Support static link aggregation
  - Support 802.3ad LACP
  - Up to 8 aggregation groups, containing 8 ports per group
- **Spanning Tree Protocol(STP)**
  - IEEE 802.1D Spanning Tree Protocol
  - IEEE 802.1s Multiple Spanning Tree Protocol
  - IEEE 802.1w Rapid 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 IEEE802.1Q with 4K VLANs simultaneously (out of 4K VIDs)
  - Support Port VLAN, Protocol VLAN and MAC-based VLAN
  - Support GARP/GVRP feature
- **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

- IP-MAC-Port-VID Binding
- Static/Dynamic Port Security (MAC-based)
- DoS defend feature
- Dynamic ARP Inspection
- 802.1x authentication
  - Support 802.1x port/MAC based authentication
  - Support Radius authentication and accountability
  - Guest VLAN
- Access Control List (ACL)
  - L2~L4 package filtering based on source and destination MAC address, IP address, TCP/UDP ports, 802.1p, DSCP, protocol and VLAN ID
  - Time based ACL
- Support Broadcast, Multicast and Unknown unicast Storm Control
- IPv6 Compliance[1]
- Secure web management through HTTPS and SSLv2/v3/TLSv1
- Secure remote command line interface(CLI) management with SSH v1/V2

Management

- Support Web-based GUI management mode
- Support Command Line Interface(CLI) through console port, telnet management mode
- SNMP v1/v2c/v3
- RMON (1, 2, 3, 9 groups)
- DHCP/BOOTP Client

- DHCP Snooping
- DHCP Option 82
- CPU Monitoring
- Port Mirroring (Many to One)
- Cable Diagnostics feature
- Ping/Tracert feature
- SNTP
- Integrated NDP/NTDP 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 802.3av GVRP
- IEEE 802.3ad Link Aggregation
- IEEE 802.3x Flow control
- IEEE 802.1p QoS
- IEEE 802.1q VLANs / VLAN tagging
- IEEE 802.1v Protocol VLAN
- IEEE 802.1d Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree (RSTP)
- IEEE 802.1s Multiple Spanning Tree (MSTP)
- IEEE 802.1x Network Login Security

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)
- Radius Accounting Client MIB (RFC2620)
- Radius Authentication Client MIB (RFC2618)
- Remote Ping, Traceroute MIB (RFC2925)
- Support TP-LINK private MIBs

◪ Ordering information

Host switches	
Product Model	**Description**
TL-SG3216	16-Port Gigabit JetStream™ L2 Managed Switch with 2 Combo SFP Slots
TL-SG3424	24-Port Gigabit JetStream™ L2 Managed Switch with 4 Combo SFP Slots
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

[1] IPv6 compliance feature is released in future version.

[2] The two Switches support 100/1000Mbps SFP module at full-duplex mode. When using the SFP port with a 100M module or a gigabit module, you need to configure its corresponding Speed and Duplex mode through firmware.

By factory default, the Speed and Duplex mode of SFP port is 1000Mbps Full-duplex.