



# TP-LINK Stream<sup>™</sup> L2 Managed Switch

TL-SL3428/TL-SL3452

# ■ Overview

TP-LINK JetStream<sup>™</sup> L2 managed switch TL-SL3428/TL-SL3452 provides 24/48 10/100Mbps ports, the switch provide high performance, enterprise-level QoS, advanced security strategies and rich layer 2 management features. Moreover, TL-SL3428 also comes equipped with 4 10/100/1000Mbps Ports and 2 combo gigabit SFP slots while TL-SL3452 equipped with 2 10/100/1000Mbps Ports and 2 gigabit SFP slots, which expand your network more flexibly. TL-SL3428/TL-SL3452 is the cost-effective network solution for the small and medium business.

TL-SL3428/TL-SL3452 has robust security and management features, the IP-MAC-Port-VID Binding and Access Control List (ACL) functions protect against broadcast storms, 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, TP-LINK JetStream™ L2 managed Switch TL-SL3428/TL-SL3452 provides 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

### **Quality of Service**

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

### **Security Strategies**

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

### 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



# TP-LINK JetStream™ L2 Managed Switch

TL-SL3428/TL-SL3452

## **Secure Networking**

TL-SL3428/TL-SL3452's security functions including IP-MAC-Port-VID Binding, Port Security, Storm control and DHCP Snooping effectively help prevent broadcast storms, ARP attacks. For DoS attacks, TL-SL3428/TL-SL3452 integrates some typical DoS attack options for users to select, so administrators can prevent these attacks more easily. In addition, the Access Control Lists (ACL, L2 to L4) feature can restrict unauthorized 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 given.

### **Advanced QoS features**

To efficiently manage voice, video and other data on one network, the switches apply rich QoS policies. Administrators can designate the priority of the traffic based on a variety of elements including IP or MAC address, TCP or UDP port number, to ensure that voice, video and other time-sensitive data are more easily transported. In conjunction with Voice VLAN, which TL-SL3428/TL-SL3452 supports, the voice applications will operate more smoothly.

# **Abundant Layer 2 features**

For more Layer 2 switch applications, TL-SL3428/TL-SL3452 supports 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. Furthermore, the switches provide advanced features for network maintenance such as Loop Protect, Cable Diagnostics and IGMP Snooping. IGMP snooping ensures the switch intelligently forwards the multicast stream 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-SL3428/TL-SL3452 is easy to use and manage. It supports 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/v2/v3) and RMON enable the switch to be polled for valuable status information and set 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

Product Picture			
Model		TL-SL3428	TL-SL3452
Physical Fe	atures		
Connector	10/100Mbps RJ45 Ports	24	48
	Gigabit RJ45 Ports	4	2
	Gigabit SFP Slots	2(Combo)	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)		$17.3 \times 8.7 \times 1.7$ in. $(440 \times 220 \times 44 \text{ mm})$	$17.3 \times 10.2 \times 1.7$ in. $(440 \times 260 \times 44 \text{ mm})$
		19-inch Rack mount Steel Case, 1U Height	19-inch Rack mount Steel Case, 1U Height
Environment		Operating Temperature: $0^{\circ}$ C $\sim$ 40 $^{\circ}$ C (32 $^{\circ}$ F $\sim$ 104 $^{\circ}$ F), Storage Temperature: $-40^{\circ}$ C $\sim$ 70 $^{\circ}$ C ( $-40^{\circ}$ F $\sim$ 158 $^{\circ}$ F) Operating Humidity: $10\%\sim$ 90 $\%$ non-condensing, Storage Humidity: $5\%\sim$ 90 $\%$ non-condensing	
Performan	ce		
Switch Capacity		12.8Gbps	17.6Gbps
Forwarding Rate		9.5Mpps	13.1Mpps
Mac Address Table		8k	8k
Jumbo Frame		10240 Bytes	10240 Bytes

# Software Features

# L2 Lite 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 Protect, 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 VLAN groups and 4K VIDs
- Support 802.1Q Tag VLAN and Protocol VLAN
- Support GARP/GVRP feature
- Support management VLAN configuration 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
- Port Isolation
- 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
- 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 802.1s Multiple Spanning Tree (MSTP)
- IEEE 802.1w Rapid Spanning Tree (RSTP)
- 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

	B. J. C.	
Product Model	Description	
TL-SL3428	JetStream™ 24-Port 10/100Mbps + 4-Port Gigabit L2 Managed Switch	
TL-SL3452	Jetstream™ 48-Port 10/100Mbps + 4-Port Gigabit L2 Managed Switch	
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	