24-Port 10/100Mbps + 4-Port Gigabit L2 Managed Switch
TL-SL5428E

- *ACL, 802.1X Authentication, Port Security, IP Filtering, Storm control, DHCP Snooping, IP Source Guard and DoS Defend provide you robust security strategy*
- *Single-IP-Management supports virtual stack of 32 units*
- *L2/L3/L4 QoS and IGMP snooping optimize voice and video application*
- *SNMP, RMON, WEB/CLI/Telnet Log-in bring abundant management policies*

Discription：

Designed for workgroups and departments, TL-SL5428E from TP-LINK provides full set of layer 2 management features. It delivers maximum throughput where you need it — to high-performance workgroups at the edge of the network, or as a backbone for Fast Ethernet switches and high-speed servers in demanding small networks. Moreover, TL-SL5428E switch also comes equipped with 4 Gigabit ports and 2 Combo SFP slots, giving you greater network flexibility.

This TP-LINK L2 managed switch has robust security and management features. An advanced Access Control List（ACL，L2 to L4) and the TP-LINK strong safeguard provide security coverage from core to edge and 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 additional Gigabit capability, TP-LINK L2 fully managed Switch TL-SL5428E can provide you the ideal access-edge solution.

- **Non-Blocking Switching**
  The TP-LINK fully managed L2 switch TL-SL5428E provides non-blocking switching solution for a 10/100Mbps fast Ethernet connection. As to the switching capacity, TL-SL5428E has a non-blocking aggregated bandwidth of 12.8Gbps. It provides 24 10/100Mbps ports and 4 gigabit 10/100/1000BASE-T ports. In these gigabit copper ports, two of these ports are combo gigabit ports, which will be disabled if the corresponding 1000BASE-X SFP slots are used. It can give you greater network flexibility.

- **Virtual Stackable**
  IP Clustering allows up to 32 TL-SL5428E switches to be managed by a single IP, regardless of geographical locations. With all units identified by a single IP address, the stack could be configured, monitored, maintained as a single object.

  Traffic running across units in this virtual stack utilizes full-duplex interfaces and network wires, eliminating costly and cumbersome cables, minimizing the impact of any single point of failure.

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Discription：

• **Comprehensive Security Strategy**

Access Control Lists (ACL, L2 to L4) restrict access to sensitive network resources by denying packets based on source and destination MAC address, IP address, TCP/UDP ports and even VLAN ID. This is done by hardware, so switching performance would not be compromised.

Moreover, the TL-SL5428E switch supports 802.1X authentication, which is used in conjunction with a RADIUS server to require some authentication information before access to the network is allowed. And more, it supports Guest VLAN to enable the non-802.1X clients to access the specific network resource. In addition, IP-MAC-Port-VID Binding, Port Security, Storm control, DHCP Snooping and IP Source Guard support can protect against broadcast storms, ARP and Denial-of-Service(DoS) attacks, etc. Regarding to the DoS defending, TL-SL5428E provides you some typical DoS attacks to select. You can protect these attacks more easily ever than before. TL-SL5428E will provide you robust security to the network.

• **Enterprise Level Manageability and Resiliency**

TL-SL5428E 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 (v1/2/3) and RMON support enables the switch to be polled for valuable status information and send traps on abnormal events. This sharing of vital management information saves time and money. With link aggregation, spanning tree protocol（STP/RSTP/MSTP）and virtual stack, a highly intelligent and scalable topology could be established, fulfilling the enterprise customers´ requirement of building a unified, resilient network.

• **Optimized Voice and Video Applications**

To integrate voice, data and video service on one network, TL-SL5428E applies 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, so voice and video are always clear, smooth and jitter free. In conjunction with the Voice VLAN the switch supporting, the voice applications will operate with much smoother performance.

For other multimedia-on-demand application such as IPTV, TL-SL5428E provides advanced features for easy stream management. For example, 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.

Features and Benefits:

Resiliency and Availability
+ Link aggregation (LACP) increases aggregated bandwidth, optimizing the transport of business critical data
+ IEEE 802.1s Multiple Spanning Tree, provides high link availability in multiple VLAN environments.
+ Support IEEE 802.1d/w Spanning Tree (STP/RSTP)
+ IGMP snooping allows the forwarding of multicast packets such as streaming audio and video, without increasing network broadcast congestion.

Layer 2 Switching
+ Non-blocking Layer 2 Switching Capacity
+ GVRP (GARP VLAN Registration Protocol) allows automatic learning and dynamic assignment of VLANs
+ Supports 4K active VLAN groups and 4K VLAN IDs
+ Q-in-Q increases the network scalability by providing a hierarchical structure

Quality of Service
+ Supports 802.1P, Class of Service (CoS) with 4 priority queues per port

+ Rate limiting confines the traffic flow accurately according to the preset value

Security
+ Supports multiple industry standard user authentication methods such as 802.1x, RADIUS Authentication, Guest VLANs
+ Supports 512 IP-MAC-Port-VID Binding entries
+ IP Source Guard prevents IP spoofing attacks such as DoS
+ Port Security enhances the security of all ports
+ L2/L3/L4 Access Control Lists restrict untrusted access to the protected resource

Manageability
+ Single-IP-Management supports virtual stack of 32 units
+ Supports Telnet, Cisco like CLI, SNMP v1/v2/v3, RMON and web access
+ Supports SSL and SSH encryptions
+ Port Mirroring enables monitoring selected ingress/egress traffic

TP-LINK ®

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TL-SL5428E

Specifications：

Performance	
MAC Address Table	8K
Switch Capacity	12.8Gbps
64-Byte Packet Forwarding Rate	9.5Mpps
Physical Interfaces	
Port Configuration	24 10/100Mbps BASE-T ports
	4 Gigabit Ports with 2 Combo SFP Slots
	1 RJ45 Console Port
Network Media	10BASE-T: UTP category 3, 4, 5 cable (maximum 100m)
	EIA/TIA-568 100Ω STP (maximum 100m)
	100BASE-TX/1000Base-T: UTP category 5, 5e cable (maximum 100m)
	EIA/TIA-568 100Ω STP (maximum 100m)
	1000BASE-X: MMF, SMF
Network Protocols and Standards	
IEEE	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3ad, 802.3x,
	IEEE 802.1D, 802.1p, 802.1Q, 802.1v, 802.1w, 802.1X, 802.1s, IEEE 802.3ac,
IETF	RFC 1541, RFC 1112, RFC 2236, RFC 2618, RFC 1757, RFC 1157, RFC 2571, RFC 2030
L2 Switching Features	
Link Aggregation	802.3ad with LACP
VLAN	IEEE 802.1Q Tagged Based — Supports 4K active VLAN groups
	Port-based
	GVRP
	802.1v Protocol VLAN
	Voice VLAN
	MAC-based VLAN
	VLAN Mapping
Q-in-Q	Port-Based
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Bridge
	IEEE 802.1s Multiple Spanning Tree
	IEEE 802.1w Rapid Spanning Tree
	Loop back detection
	TC Protect
	BPDU Filter/Protect
	Root Protect
Strom Control	Broadcast storm control
IGMP Snooping	IGMP Snooping v1/v2/;v3
	IGMP Immediate Leave

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Specifications：

L2 Switching Features	
IGMP Snooping	Unknown IGMP Throttling
	IGMP Filtering
	Static Multicast IP
Multicast VLAN Registration	Support
Jumbo Frame	10240 Bytes (Gigabit port)
QoS Features	
Priority Queue	4
Scheduling for Priority Queue	WRR Priority scheduling
	Strict Priority scheduling
	Strict Priority + WRR Priority scheduling
COS	802.1p based COS
	DSCP based COS
	Port based COS
Rate Limiting	Port-based/Flow-based
Storm Control	Broadcast/Multicast/Unknown Unicast Storm Control
DiffServ	Support
Voice VLAN	Support
Security Features	
IP-MAC-Port-VID Binding	512 entries
Static/Dynamic Port Security (MAC-based)	Per port: Up to 64 MACs
	Auto-learned support
IP Source Guard	Support
DoS Defence	Support
Dynamic ARP inspection (DAI)	Support
802.1x	Port-Based
	MAC-based
	Guest VLAN
	Radius
RADIUS	RADIUS authentication, RADIUS authorization and accounting
L2/L3/L4 ACL	Packet Flow Filter;
	Packet Flow Redirection;
	Time Range Based;
	Flow-based QoS
HTTPS and SSL (Secured Web)	Support
MAC Based authentication	Support
SSH v1/v2 (Secured Telnet)	Support

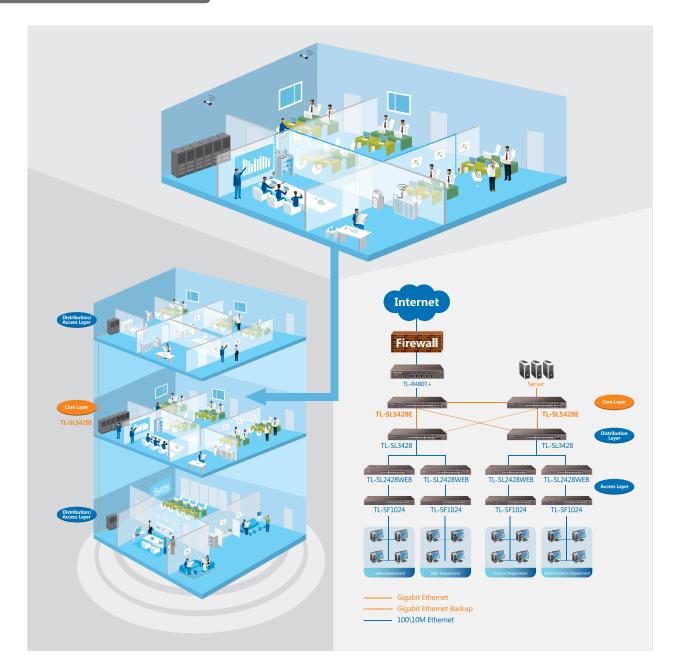# 24-Port 10/100Mbps + 4-Port Gigabit L2 Managed Switch
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Specifications：

Management Features	
In and out of band management	Cisco Like CLI, Web Based Management, Telnet, SNMP v1/v2/v3, RMON(1,2,3,9 group),
SNMP v1/v2/v3	RFC MIBs/TP-LINK MIBs
DHCP	DHCP Client
	DHCP Snooping
	DHCP Option82
	BOOTP Client
Port Mirroring	many to one port monitoring
	Ingress and/or Egress mirror
CPU Monitor	Support
Cable Test	Support
System Log	Support
Ping/Tracert	Support
SNTP	Support
IP Clustering (Virtual Stacking)	32 units
Electrical & Emissions Summary	
Compliance	CE; FCC Class A
Standard	EN60950, EN55022, EN55024
Power	100-240VAC 50-60 Hz
Physical and Environmental Specification	
Dimensions(W x D x H)	17.3 x 10.2 x 1.7in.(440 * 260mm×44mm)
Temperature	Operating: 0℃~40℃ (32℉~104℉)
	Storage: -40℃ ~ 70℃ (-40℉ ~ 158℉)
Humidity	Operating: 10%~90% Non-Condensing
	Storage: 5% to 90% RH, Non-Condensing

Related Products

Product Model	Product Description
TL-R480T+	Load Balance Broadband Router
TL-SL3428	24-Port 10/100Mbps + 4-Port Gigabit L2 Lite Managed Switch
TL-SL2428WEB	24-Port 10/100Mbps + 4-Port Gigabit Web Smart Switch
TL-SF1024	24-Port 10/100Mbps Fast Ethernet Switch
TL-SM321A/TL-SM321B	1000base-BX WDM SFP Module
TL-SM221A/TL-SM221B	100base-BX WDM SFP Module

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Topology Diagram:

Internet

Firewall

TL-R480T+
Server

TL-SL5428E   Core Layer   **TL-SL5428E**

TL-SL3428   Distribution Layer   TL-SL3428

Distribution/Access Layer

Core Layer

TL-SL5428E

Distribution/Access Layer

TL-SL2428WEB   TL-SL2428WEB   TL-SL2428WEB   TL-SL2428WEB   Access Layer

TL-SF1024   TL-SF1024   TL-SF1024   TL-SF1024

Sales Department   R&D Department   Finance Department   Administration Department

Gigabit Ethernet
Gigabit Ethernet Backup
100\10M Ethernet

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