JetStream T2500G Series L2 Managed Switches

MODEL: T2500G-10TS(TL-SG3210) Datasheet

Highlights

- Gigabit Ethernet connections on all ports provide full speed of data transferring
- Selective RJ45 console port and Micro-USB console port
- Advanced security features include IP-MAC-Port Binding, ACL, Port Security, DoS Defend, Storm Control, DHCP Snooping, 802.1X and Radius Authentication
- L2/L3/L4 QoS and IGMP snooping optimize voice and video applications
- Web/CLI managed modes, SNMP, RMON and Dual Image bring abundant management features

Overview

TP-Link's JetStream T2500G-10TS L2 managed switches are designed exclusively for the networking needs of growing businesses, with an extensive suite of management features and security functions available. These TP-Link products are cost-effective for small and medium-sized businesses, making them ideal networking solutions.

Abundant L2 Features

T2500G-10TS switches support a complete lineup of L2 features, including 802.1Q tag VLAN, QinQ, Port Mirroring, STP/RSTP/MSTP, Link Aggregation Control Protocol and 802.3x Flow Control function. In addition, the switches provide advanced features for network maintenance, including LoopBack Detection and Cable Diagnostics. IGMP Snooping ensures intelligent forwarding of the multicast stream to only the appropriate subscribers, while IGMP throttling & filtering restricts each subscriber on a port level to prevent unauthorized multicast access.

Secure Networking

The T2500G-10TS switches provide IP-MAC-Port Binding, Port Security, Storm control and DHCP Snooping which protect against broadcast storms, ARP attacks, etc. It integrates some typical DoS attacks to select. You can protect these attacks much easier than ever. 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 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.

Advanced QoS Features

To integrate voice, data and video service on one network, T2500G-10TS switches apply 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. In conjunction with the Voice VLAN the switch supports, the voice applications will operate with much smoother performance.

Enterprise Level Management Features

T2500G-10TS switches are 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. DDM function makes it easier for network operators to monitor the status of devices connected to the SFP Slots. SNMP (v1/v2c/v3) and RMON support enables the switch to be polled for valuable status information and send traps on abnormal events. And it also supports Dual Configuration and Dual Image, which provides reduced down-time for the switches, when the image is being upgraded / downgraded.

Specifications

Hardware Features & Performance

Product Picture			
Model	T2500G-10TS (TL-SG3210)		
General	Standard and Protocols	IEEE 802.3i 10BASE-T Ethernet IEEE 802.3u 100BASE-TX/FX IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-X IEEE 802.3x Flow control IEEE 802.3ad Link Aggregation IEEE 802.1d Spanning Tree Protocol (STP) IEEE 802.1s Rapid Spanning Tree (RSTP) IEEE 802.1w Multiple Spanning Tree (MSTP) IEEE 802.1q VLAN IEEE 802.1x Port-based Network Access Control IEEE 802.1p QoS	
	Network Media	100BASE-TX/1000Base-T: UTP category 5, 5e or above cable (maximum 100m) 1000BASE-X: MMF, SMF	
	Interface	8 10/100/1000Mbps RJ45 ports 2 Gigabit SFP Slots	
	Console Port	1 RJ45 Console Port 1Micro-USB Console port	
Performance	Switching Capacity	20Gbps	
	Packet Forwarding Rate	14.9Mpps	
	MAC Address Table	8K	
	Packet Buffer	4.1Mbit	
	Jumbo Frame	9216Bytes	
Physical & Environment	Power Supply	100-240V AC, 50/60Hz	
	Max Power Consumption	6.836W (220V/50Hz)	
	Max Heat Dissipation	23.32BTU/h	
	Dimensions (W × D × H)	11.6 × 7.1 × 1.7 in. (294 × 180 × 44 mm)	
	Fan Quantity	Fanless	
	Operating Temperature	0°C~40°C (32°F~104°F)	
	Storage Temperature	-40°C~70°C (-40°F~158°F)	
	Operating Humidity	10%~90%RH, non-condensing	
	Storage Humidity	5%~90%RH, non-condensing	
	Certification	CE, FCC	

Software Features

L2 Features	• Link Aggregation
	 - static link aggregation
	 - 802.3ad LACP
	 - Up to 8 aggregation groups,
	   containing 8 ports per group
	• Spanning Tree Protocol
	 - 802.1D STP
	 - 802.1w RSTP
	 - 802.1s MSTP
	 - STP Security: Loop Protect,
	   TC Protect, BPDU Filter/Protect, Root Protect
		• Loopback Detection
		• Flow Control
		 - 802.3x Flow Control
		 - HOL Blocking Prevention
		• Port Mirroring
		 - One-to-One
		 - Many-to-One
		 - Flow-Based
		 - Tx/Rx/Both
		• LLDP, LLDP-MED
		• DHCP VLAN Relay
		• L2PT

L2 Multicast	• Supports 512 (IPv4,IPv6) multicast groups
	• IGMP Snooping
	 - IGMP v1/v2/v3 Snooping
	 - IGMP Fast Leave
	 - IGMP Snooping Querier
	 - IGMP Authentication
	 - Static Group Config
		• MLD Snooping
		 - MLD v1/v2 Snooping
		 - MLD Snooping Querier
		 - Fast Leave
		 - Limited IP Multicast
		 - IGMP Authentication
		 - Static Group Config
		  • MVR
		  • Multicast Filtering

VLAN	• VLAN Group - Max. 4K VLAN Groups • 802.1Q tag VLAN	• MAC VLAN • Protocol VLAN • VLAN VPN (QinQ) • GVRP
QoS	• 802.1p CoS/DSCP priority • 8 Priority Queues • Queue scheduling - SP (Strict Priority) - WRR (Weighted Round Robin) - SP+WRR • Bandwidth Control	- Port/Flow based Rating Limiting • Smoother Performance • Actions for flows - Mirror (to supported interface) - Redirect (to supported interface) - Rate Limit - QoS Remark • Voice VLAN
ACL	• Supports up to 64 entries (up to 254 by SDM Template) • MAC ACL - Source MAC - Destination MAC - VLAN ID - User Priority - EtherType • IP ACL - Source IP - Destination IP - IP Protocol	- TCP Flag - TCP/UDP Port - DSCP/IP TOS • Combined ACL • IPv6 ACL • Policy - Mirroring - Redirect - Rate Limit - QoS Remark • ACL apply to Port/VLAN

Software Features

Security	• IP-MAC-Port Binding
	  - DHCP Snooping
	  - ARP Inspection
	  - IPv4 Source Guard
	• IPv6-MAC-Port Binding
	 - DHCPv6 Snooping
	 - ND Detection
	 - IPv6 Source Guard
	• DoS Defend
	• Static/Dynamic Port Security
	  - Up to 64 MAC addresses per port
	• Broadcast/Multicast/Unicast Storm Control
	  - kbps/ratio control mode
		• 802.1X
		 - Port based authentication
		 - MAC based authentication
		 - Guest VLAN
		 - Support Radius authentication and accountability
		• AAA
		• Port Isolation
		• Secure web management through HTTPS with SSLv3/TLS1.0
		• Secure Command Line Interface (CLI) management with SSHv1/SSHv2
		• IP/Port/MAC based access control

IPv6 Support	• IPv6 Dual IPv4/IPv6 • Multicast Listener Discovery (MLD) Snooping • IPv6 ACL • IPv6 neighbor discovery (ND) • Path maximum transmission unit (MTU) discovery • Internet Control Message Protocol (ICMP) version 6 • TCPv6/UDPv6 • IPv6 applications - DHCPv6 Client	- Ping6 - Tracert6 - Telnet (v6) - IPv6 SNMP - IPv6 SSH - IPv6 SSL - Http/Https - IPv6 TFTP

Management	• Web-based GUI
	• Command Line Interface (CLI) through console port, telnet
	• SNMPv1/v2c/v3
	  - Trap/Inform
	  - RMON (1,2,3,9 groups)
	• SDM Template
	• DHCP/BOOTP Client
	• 802.1ab LLDP/LLDP-MED
		• DHCP Auto Install
		• CPU Monitoring
		• Cable Diagnostics
		• EEE
		• Password Recovery
		• SNTP
		• System Log
		• Dual Image, Dual Configuration

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

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