



**52-port L3 10Gigabit Ethernet Switch**

## TS-3048G-4XS

**52-port Layer 3  
Managed 10Gigabit  
Ethernet Switch**

*Full Gigabit Ethernet  
Switch with 10Gbps  
fiber uplink interfaces*

### Overview

Teroline's TS-3048G-4XS is a Layer 3 managed full Gigabit Ethernet Switch with 48 x 10/100/1000Base-T RJ45 ports and 4 x 1G/2.5G/10GbE SFP+ ports. It is featured with dynamic L3 routing and full L2 features such as VLAN, QoS, IGMP, Port Mirroring, LLDP, security, G.8032 ERPS ring protection and IPv4/6 based network management.

TS-3048G-4XS is an ideal solution featured with wire-speed high-performance switching capability for small and medium enterprises as well as cost efficient L2/L3 WAN access application scenarios. Designed with a built-in wide-range AC power supply and standard 1RU 19-inch pizzabox, it's environment-friendly with a controllable fan for energy-saving and noise reduction. It supports various means of configuration and management, including CLI, secure web and standard SNMP, thus applicable for various SME L2/L3 cost-efficient leased-line service access and Active Ethernet based FTTB/FTTC residential broadband access scenarios.

### Key features

- > 4 x 1G/2.5G/10GbE SFP+ fiber interfaces and 48 x 10/100/1000BASE-T RJ45 LAN interfaces, one RJ45 Console interface
- > Dynamic L3 routing and full L2 switching functions and IPv4/IPv6 network management
- > ITU-T G.8032 standard ERPS Ring with sub-20ms switchover time
- > Up to 10K Bytes Jumbo Frame support
- > Various configuration and management ways such as CLI/web/SNMP
- > 1RU 19" rack mounted, wide-range AC power supply
- > 6KV/4KV surge protection on power and Ethernet LAN ports respectively
- > Controllable fan speed for energy saving and noise reduction

## Specifications

<b>Interface Specifications</b>	Fiber port	4 * 1G/2.5G/10GbE SFP+	
	Copper port	48 * 10/100/1000Base-T (RJ45)	
	Management Port	1 * RJ45 Console	
	Reset button	Reset the switch to factory default	
<b>Power Specifications</b>	Input voltage	100-240VAC, 50/60Hz Built-in power supply	
	Power consumption	≤ 40W (full load)	
	Over-voltage protection	Supported	
	Over-current protection	Supported	
<b>LED Indicators</b>	1 – PWR (Green)	Power on indicator	
	2 – SYS (Green)	System working status indicator	
	3 – LNK/ACT (Green)	RJ45 port link up/down/act indicator per port	
	4 – SPEED (Yellow)	RJ45 port speed indicator per port	
	5 – LNK/ACT (Green)	SFP port link up/down/act indicator per port	
<b>Specifications</b>	Switching capacity	352Gbps	
	Packet forwarding rate	236Mpps	
	MAC address table	16K	
	VLAN	4K	
	Buffer	12Mb	
	Forwarding delay	< 5us	
	Jumbo frame	10K bytes	
	Auto MDI/MDIX	Supported	
	Watchdog	Supported	
	<b>L2 Switching</b>	Link Aggregation	Static and dynamic Link Aggregation
		Port-based Features	IEEE 802.3x flow control
Port-based traffic statistics			
Port isolation			
Broadcast storm control			
VLAN		Access, trunk and hybrid mode VLAN tagging based on MAC/IP/protocol Port-based Q-in-Q Flexible Q-in-Q	
Port Mirroring		Multiple to one port mirroring	
Ring Protection		STP/RSTP/MSTP ITU-T G.8032 ERPS, sub-20ms switchover time	
DHCP		DHCP Client DHCP Snooping	
Multicast		IGMPv1, v2 & v3 IGMP Snooping	
ACL	ACL policies based on MAC/IP		
Quality of Service (QoS)	Ingress/egress port-based rate-limiting QoS class remarking Support policy-based QoS SP and WRR queue scheduling		
Security	IEEE 802.1x port/MAC authentication RADIUS IP Source Guard, port/MAC/IP binding		

	Management and Maintenance	ARP inspection and filtering HTTP/HTTPS web management SNMPv1/v2c/v3 support Support IPv6 for management Syslog and alarm classification Support RMON Support LLDP Support NTP Support optic transceiver DDM Support Ping/Tracert for diagnosis Support Telnet and SSH connection Support TFTP and web for upgrade
<b>L3 Routing</b>	ARP	ARP table aging
	Routing entry	13K
	IPv4/IPv6	Static routing
	ECMP	ECMP ECMP max next-hop configuration Capacity balanced configuration
	Route policy	IPv4 prefix-list
	Redundancy	Support VRRP
	IP Routing Protocol	RIP v1/v2 OSPF v2 IS-IS v4 BGP4, supporting routing recursive ECMP Viewing the number of neighbors and states
<b>Standards</b>	IEEE 802.3	10BASE-T
	IEEE 802.3u	100BASE-TX
	IEEE 802.3ab	1000BASE-T
	IEEE 802.3z	1000Base-X
	IEEE 802.3x	Full-duplex flow control
	IEEE 802.1d/w	Spanning Tree/Rapid Spanning Tree
	IEEE 802.1Q	VLAN
	IEEE 802.1X	Port Authentication
	IEEE 802.1ab	LLDP
	IEEE 802.3ad	LACP
	ITU-T G.8032	ERPS
<b>Environment</b>	Operating temperature	0°C to +50°C
	Storage temperature	-40°C to +85°C
	Relative humidity	5% to 95% (non-condensing)
	Thermal design	Controllable fans
	MTBF	100,000 hours
<b>Standards compliance</b>	Power port surge protection	IEC 61000-4-5 6KV (8/20us)
	Ethernet port surge protection	IEC 61000-4-5 Level 4: 4KV (10/700us)
	EMI	FCC Part 15B Class A
	Certifications	CE, FCC, RoHS
<b>Physical parameters</b>	Dimensions	440(W)*300(D)*44(H)mm
	Installation Method	19-inch 1RU rack mounted
<b>Warranty</b>	Standard Warranty	2 years

## Ordering information

Model	Description
TS-3048G-4XS	L3 managed 10Gigabit Ethernet Switch, 48x10/100/1000Base-T RJ45 + 4x1G/2.5G/10GbE SFP+ ports, AC100-240V, 50/60Hz built-in power supply, 19-inch 1RU rack mounted, operation temperature: 0°C to +50°C