

Product: [MTS2948X-6Q-A](#) 

MAMMUTHUS Layer3 10Gigabit Ethernet Core Switch



Product Description

1U rack mount 10G Core Switch, 48 × 1/10G SFP+ slots, 6 × 40G QSFP+ slots, redundant PSU, advanced software

Technical Specifications

Product description

Type:	MTS2948X-6Q-A
Name:	MTS2948X-6Q-A
Description:	1U rack mount 10G Core Switch, 48 × 1/10G SFP+ slots, 6 × 40G QSFP+ slots, redundant PSU, advanced software
Part Number:	942999824
Port Type and Quantity:	48 × 1/10G SFP+ slots, 6 × 40G QSFP+ slots, 1 × USB, 2 × RJ45 console port, 1 × FE/GE RJ45 out of band management port, 1 × Reset Button
Heat Radiation Type:	Modular fans

More Interfaces

Power Supply:	2 × modular redundant PSUs, hot swappable
---------------	---

Power requirements

Operating Voltage:	100-240VAC 50-60Hz, redundancy PSU supported
Power consumption:	200W

Ambient conditions

Permissible Humidity (Storage/Transport):	5% to 95%
Operating temperature:	-10-+55 °C
Minimum Storage Temperature:	-40-+70 °C
Relative humidity (non-condensing):	10-90 %

Mechanical construction

Overall Width:	440 mm
Overall Height:	44.2 mm
Depth:	560 mm
Weight:	12.4 kg
Mount Type:	Rack mount

Software Specifications

Ethernet Feature	Port Feature	Port isolation; UNI/NNI isolation; UMB storm-control; combo port self-adaption
	MAC address management	Sticky MAC learning; VLAN and global MAC address; static MAC; MAC address removal alert
	VLAN	Support 4K VLAN; VLAN based on port/MAC/IP/protocol port number; VLAN Mapping N:1; PVLAN; Super-VLAN; GVRP
	QinQ	Q-in-Q and flexible Q-in-Q
	Redundancy	STP/MSTP/RSTP; BPDU Guard; Root Guard; Flap GuardLoop Guard; portfast test; BPDU message encryption; VIST; LBD; EIPS
	Port mirroring	N:1 port mirroring; data flow mirroring; RSPAN; ERSPAN; VLAN mirroring;
Router Feature	Link aggregation	Dynamic link aggregation; static link aggregation; cross board/devices link aggregation; flow-based load balance
	IPv4 protocol	TCP; UDP; Ping; TraceRoute; Telnet; FTP; TFTP; ICMPv4; DNS; UDP Helper; DHCP; DHCP server; DHCP Delay; DHCP Snooping; NTP; SNTP; support ARP and ARP Proxy
	IPv6 protocol	IPv4/IPv6 dual stack; TCP6; UDP6; RawIP6; Ping v6; TraceRoute6; Telnet6; FTPv6; TFTPv6; DNSv6; ICMPv6; VRRPv3; DHCPv6; ND; PMTUD

	IPv4 router protocol	Static route; RIPv1/v2; RIP; OSPF; IS-IS; BGP; GRE; IPIP tunnel; ECMP; Network load balancing
	IPv6 router protocol	IPv6 static route; RIPng; OSPFv3; IS-ISV6; BGPv4+; IPV6 transition tunnel; GREv6
Multicast	Layer2 multicast	IGMPv1/v2/v3 Snooping; multicast VLAN; support MLD v1/v2 Snooping
	Layer3 multicast	""IGMPv1/v2/v3; MLD v1/v2; multicast static router; IPv4 intra-domain multicast router; IPv4 inter-domain multicast router; IPv4 multicast ""management; support MSDP/PIM-SM/PIM-DM/PIM-SSM/PIM-SDM; IPv6 intra-domain multicast router; IPv6 inter-domain multicast router; IPv6 multicast management; IPv6 multicast forwarding; MSDP for IPv6; support PIM-SMv6 and PIM-SSMv6""
MPLS	MPLS	LDP; MPLS L3VPN
ACL/QOS	ACL	IPv4/IPv6 standard ACL; IPv4/IPv6 extended ACL; mixed ACL; MAC ACL; ACL based on port; ACL based on layer3 interface; ACL based on VLAN; global ACL; Ingress/Egress ACL; ACL matching log; time-based ACL
	QOS	Scheduling; 802.1p and DSCP priority mapping; traffic classification; traffic policing; traffic shaping; congestion management; congestion avoidance; speed limitation based on time domain; traffic policing based on time domain
Security function	Network security	Message validity test; URPF; ACL; port isolation; DHCP Snooping; DHCPv6 Snooping; IPSG; IPSGv6; AARF; Dynamic ARP Inspection; ARP Check; Host Guard; BPDU message encryption
	Management security	AAA; SSH v1/v2; USB-Key; log/configuration encryption; password strength check; login protection
	Access security	Portal certification; 802.1X certification; MAC certification; port security
Data center feature	VXLAN	VXLAN cross data center interconnection; VTEP; EVPN
	TRILL	TRILL transparent exchange network
	SDN	OpenFlow1.1/1.2/1.3; XML API/NETCONF; M-LAG
Device maintenance	Device management method	Console; Telnet; SSH v1/v2
	File management	FTP/TFTP upload/download files; formatting files; creating catalog; file management
	Network maintenance	Ping; TraceRoute; LSP Ping/Tracert function; interface loop monitoring
	Network management	SNMP v1/v2/v3; RMON; SSH v1/v2; IPFIX/SFLOW; support TR069
	OAM function	802.3ah OAM; 802.1ag OAM; ITU Y.1731 OAM
Reliability	Device reliability	Support PSU hot-plugging and fan module hot-plugging; support IOS backup and recovery; support configuration file backup and recovery
	Network reliability	VRRP; VBRP; VRRPv3; BFDv6; BFD for VRRP/BGP/IS-IS/RIP/OSPF/static router; support VRRP and TRILL linkage; ULFD; ULPP; Monitor Link
Stacking		Stackable, up to 8 devices in one stack

Mechanical stability

IEC 60068-2-6 vibration:	1 mm, 2 Hz-13.2 Hz, 90 min.; 0.7 g, 13.2 Hz-100 Hz, 90 min.; 3.5 mm, 3 Hz-9 Hz, 10 cycles, 1 octave/min.; 1 g, 9 Hz-150 Hz, 10 cycles, 1 octave/min
IEC 60068-2-27 shock:	15 g, 11 ms duration, 18 shocks

EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD):	4 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field:	10V/m (80-1000MHz), 3V/m (1000-6000MHz)
EN 61000-4-4 fast transients (burst):	2 kV power line, 1 kV data line
EN 61000-4-5 surge voltage:	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line
EN 61000-4-6 Conducted Immunity:	10 V (150 kHz-80 MHz)
EN 61000-4-8 power freq magnetic field:	30A/m
EN 61000-4-11 voltage dips, short interrupt:	0%(20ms), 40%(300ms), 70%(500ms), 0%(5s)

EMC emitted immunity

EN 55032:	EN 55032 Class A
EN 61000-3-2:	EN 61000-3-2 Class A
EN 61000-3-3:	EN 61000-3-3
FCC CFR47 Part 15:	FCC 47CFR Part 15, Class A

Approvals

FCC:	CE/FCC Compliant
China Network Access Certificate:	Compliant
CCC:	Compliant
Common Criteria:	EAL 2+
RoHS Compliant:	RoHS ((EU) 2015/863) and RoHS (GB/T26572-2011) compliant

Scope of delivery and accessories

Accessories to Order Separately:	Network Management Industrial HiVision, SFP, PSU module, fan module (A MTS2948X-6Q-A switch must have four fan modules to make it work properly)
Scope of delivery:	"Device, console cable, installation package, ""Power cord does not included in the package"

History

Update and Revision:	Revision Number: 0.95 Revision Date: 02-03-2025
----------------------	---

Variants

Item #	Type
942999824	MTS2948X-6Q-A

© 2026 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.