CTS
CONNECTION TECHNOLOGY SYSTEMS

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XFS-7110-2HG

2 x 100G QSFP28 +

4 x 25G SFP28 + 4 x 10G SFP+

L3 Lite Managed Switch

Description

The CTS XFS-7110-2HG Layer 3 Lite Switch is designed to provide high-performance and scalable network connectivity for enterprise and data center environments. Featuring a 680Gbps switching capacity and high-speed 100G, 25G, and 10G fiber interfaces, it supports bandwidth-intensive applications and flexible network deployment. The switch also integrates redundancy, management, and timing features to support reliable operation in complex network environments.

Interface

The XFS-7110-2HG is equipped with 2 x 100G QSFP28 + 4 x 25G SFP28 + 4 x 10G SFP+ fiber ports for high-speed connectivity. Each 100G QSFP28 port supports breakout into 4 x 25G interfaces, providing greater flexibility for network expansion and deployment. A dedicated OOB management port and an RS-232 RJ-45 console port are provided for device configuration and management. A USB port is also available for firmware upgrade.

Product Highlights

XFS-7110-2HG Layer 3 Lite Switch combines high-speed connectivity, network redundancy, and **IEEE 1588v2 Precision Time Protocol (PTP) Transparent Clock** support for applications that require precise time synchronization.

Ideal Applications

This Layer 3 Lite Switch is perfect for data centers, enterprise networks, and high-traffic environments where reliability, security, and performance are critical. Its versatile VLAN and redundancy support make it an excellent choice for managing complex network topologies, while its robust security features ensure network integrity. Whether you're handling large-scale traffic or securing sensitive data, this switch can easily meet the needs of modern network infrastructures.

Key Features

■ 2 x 100G QSFP28 Uplinks + 4 x 25G SFP28 + 4 x 10G SFP+ fiber ports

It combines 2 x 100G QSFP28 high-speed uplinks, each supporting breakout into 4 x 25G SFP28, along with 4 x 25G SFP28 and 4 x 10G SFP+ fiber ports, delivering up to 680 Gbps switching capacity, making it ideal for high-bandwidth applications.

■ Static Routing for Smarter Traffic Management *

Enhance network efficiency with static routing, enabling seamless inter-VLAN communication and reducing reliance on external routers.

■ PTP IEEE 1588v2 Transparent Clock (TC)

Supports IEEE 1588v2 Precision Time Protocol Transparent Clock, enabling accurate time synchronization with low latency and minimal timing error across the network for time-sensitive applications.

■ OAM with IEEE 802.1ag CFM *

Supports OAM functions compliant with IEEE 802.1ag CFM for proactive network monitoring, fault detection, and performance verification, enhancing service reliability and operational visibility.

■ Resilient Network with MSTP and ERPS*

Ensure uninterrupted connectivity with Multiple Spanning Tree Protocol (MSTP) and Ethernet Ring Protection Switching (ERPS)* , delivering fast recovery and network stability.

■ Comprehensive Security and Traffic Protection

Protects network operations with RADIUS/TACACS+ authentication, IP Source Binding, ACL-based traffic filtering, port isolation, MAC limiting, and storm control for unknown multicast and broadcast traffic.

■ Targeted Applications

• Ideal for enterprise networks, data centers, and service providers requiring high-speed, secure, and redundant connectivity for demanding business applications.

* Coming soon

Specification

■ Interface

Fiber Port

- 2 x 100G QSFP28
  (Each port supports breakout to 4 x 25G SFP28)
- 4 x 25GBase-R SFP28
- 4 x 10GBase-X SFP+

Console Port

- 1 x RS-232 to RJ-45 Serial Port

OOB Management Port

- 1 x 10/100/1000BASE-T RJ-45

USB Port

- 1 x USB 2.0 Port

Standards

- IEEE 802.3bm 100GBASE-SR4
- IEEE 802.3ba 100GBASE-LR4
- IEEE 802.3by 25GBASE-SR
- IEEE 802.3cc 25GBASE-LR/ER
- IEEE 802.3ae 10GBASE-R
- IEEE 802.3x Flow Control
- IEEE 802.3ad LACP
- IEEE 802.1ag CFM *
- IEEE 802.1ab LLDP
- IEEE 802.1p Priority
- IEEE 802.1Q Tag VLAN
- IEEE 802.1D STP
- IEEE 802.1w RSTP
- IEEE 802.1s MSTP
- IEEE 1588v2 PTP Transparent Clock (TC)
- ITU-T G.8032v2 ERPS *

■ H/W Specification

- MAC Address Table: 32K
- Switching Fabric: 680 Gbps
- Forwarding Rate: Up to 600 Mpps
- Packet Buffer: 6 MB
- Jumbo Frame: 10 KB
- Store and Forward / Cut-Through Switching Mechanism

■ LED

- Power, Status, COM, MGMT, USB, Link/Act/Speed

■ Ventilation

- Smart Fan
  2 x Speed Auto-adjusting Fan

■ Forward/Filter Rate

- 100G Port: 148.8 Mpps (148,809,524 pps)
- 25G Port: 37.2 Mpps (37,202,381 pps)
- 10G Port: 14.88 Mpps (14,880,952 pps)

■ Layer 2 Switch Features

Port Management

- State, Description, Media Type, Port Type, Speed, Flow Control, Cut-Through and FEC mode

Network Redundancy

- STP (Spanning Tree Protocol)
- RSTP (Rapid Spanning Tree Protocol)
- MSTP (Multiple Spanning Tree Protocol)
- Static Port Trunking / Dynamic LACP Trunk
  Up to 8 Aggregation Groups, Max. 8 Ports per Group
- ERPSv2 (Ethernet Ring Protection Switching) *

VLAN

- IEEE 802.1Q VLAN
  VLAN ID: 4094 IDs
  VLAN Concurrent Groups: 4K VLAN Groups
- Port-Based VLAN

QoS

- QoS based on 802.1p CoS and DSCP
- Scheduling Algorithm
  Weighted Round Robin (WRR)
  Strict Priority Queuing (SPQ)
- QoS Priority Queues: 8 Queues
- 802.1p P-bit & DSCP Remarking
- Port-Based Rate Limit (Ingress/Egress)

Multicast

- IGMP Snooping v1/v2/v3
- MLD Snooping v1/v2
- IGMP/MLD Fast Leave and Querier
- IGMP/MLD Snooping Group: 256/128 Groups
- IP Multicast Filter with Segment and Profile
- Static Multicast Group
- Multicast VLAN Registration (MVR)

IPv6 Feature

- IPv6 Over Ethernet (RFC 2464)
- IPv6 Addressing Architecture (RFC 4291)
- IPv6 Dual Stack (RFC 4213)
- ICMPv6 (RFC 4884)
- Path MTU Discovery for IPv6 (RFC 1981)
- Neighbour Discovery (RFC 4861)
- DHCPv6 Client

Access Control List

- Physical Port, Ether Type, MAC Address, VID, ToS/Traffic Class, Protocol Type, L4 Port and IP Address
- ACL Entries (64 Entries)

* Coming soon

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Specification

■ Security

- RADIUS/TACACS+ Authentication for login username/password
- IP Source Binding
- Port Isolation
- Port Link Flap
- Port Linkup Delay
- Storm Control (Unknown Multicast, Broadcast)
- MAC Limiter

■ Layer 3 Features *

IP Interface

- Supports multiple VLAN Interfaces (SVI / VLANIF)
- Inter-VLAN Routing
- IPv4 & IPv6 Dual Stack

IP Routing

- Static Routing (IPv4/IPv6)

IP Services

- IPv4 ARP & IPv6 Neighbor Discovery (ND)

■ Management

- Web: HTTP/HTTPS (TLS 1.3)
- CLI: Console/Telnet/SSH v2
- SNMP: v1, v2c, v3 (Traps supported)
- SNTP with Daylight Saving Time
- Layer 2 Control Protocol Filter
- Static MAC Address Table
- LLDP

Upgrade/Restore

- Firmware Upgrade/Downgrade HTTP/HTTPS/FTP/TFTP
- Configuration Upload/Backup HTTP/HTTPS/FTP/TFTP
- Auto configure backup FTP/TFTP

■ Maintenance

Diagnostics

- Port Mirror
- ICMP Ping, Traceroute
- Event Log
- Port Link Flap Log
- Syslog
- SFF-8636/8472 DDMI Monitor Temp/Voltage/TX Bias/TX Power/RX Power
- CPU Utilization/Temperature
- Memory Statistics
- Fan Speed
- System Voltage
- CFM *

■ Power Requirement

- AC Input: 100~240V, 50/60Hz
- DC Input: 48V
- External DC Input: 12V (R7B adapter)

Power Consumption (Full load)

- At 50˚C (Smart fan): 55 W (187.6 BTU/h)
- At 25˚C (Smart fan): 45 W (153.5 BTU/h)

■ Environmental Condition

- Operation: 0˚C ~ 50˚C
- Storage: -10˚C ~ 60˚C
- Humidity: 5% ~ 90%, Non-condensing

■ Dimension & Weight

- Size: 210 x 290 x 44 mm (W x D x H)
- Weight: 2.2 Kg

■ Standards and Certifications

CE/FCC Class A

- Safety: EN/IEC 62368-1
- EMC: EN 55032 / EN 55035

VCCI/UKCA/RCM

RoHS 2.0

* Coming soon

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Order Information

Model	Fiber Port			Support Power Source
	Speed	Type	Slots	
XFS-7110-2HG-1A	100Gbps	QSFP28	2	1 x Fixed Internal 100-240 VAC
	25Gbps	SFP28	4	
	10Gbps	SFP+	4	
XFS-7110-2HG-1D	100Gbps	QSFP28	2	1 x Fixed Internal 48 VDC
	25Gbps	SFP28	4	
	10Gbps	SFP+	4	
XFS-7110-2HG-1AE	100Gbps	QSFP28	2	1 x Fixed Internal 100-240 VAC + 1 x Fixed External 12 VDC (via R7B adapter)
	25Gbps	SFP28	4	
	10Gbps	SFP+	4	

Accessory

R7B Adapter

Model	Input	Output		Support Plug Type
	Voltage Range	Voltage	Current	
XFS-7110 R7B PWR KIT	100-240 VAC, 50/60Hz	12 VDC	12.5A	EU/US/UK

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