Cisco

C1-C2960X-24TD-L

Datasheet

Product Overview

- The Cisco Catalyst 2960-X Series is a trusted platform positioned for enterprise-class access and advanced campus connectivity.

- Designed for offices, campuses, and branch scenarios, it serves organizations needing reliable, scalable network switching.

- Delivering 24 or 48 Gigabit Ethernet ports and up to 10G SFP+ uplinks, it ensures robust bandwidth and powerful network performance.

- This model sets itself apart with PoE+ support, intelligent network management, and stacking for simplified operations.

- Centralized configuration, monitoring, and troubleshooting deliver easy onboarding and reduce deployment time significantly.

- For any business seeking simple, secure, and energy-saving networking, the Catalyst 2960-X series is a dependable switch solution.

Product Highlights

- **High-Density Gigabit Ports:** 24 or 48 Gigabit Ethernet ports with line-rate forwarding deliver strong wired connectivity for busy networks.

- **Flexible Uplink Options:** Choose from 4 fixed 1G SFP uplinks or 2 fixed 10G SFP+ uplinks for scalable backbone and aggregation capacity.

- **Enhanced Power & Security:** PoE+ with up to 740W support, advanced authentication, and flexible management interfaces for safe, easy operations.

- **Robust Reliability:** Enhanced MTBF, stacking support, dual power option, and an extended limited lifetime warranty ensure long-term stability.

Detailed Features

C1-C2960X-24TD-L

Component	Specification
Feature Set	LAN Base
Uplink Interfaces	2 × 10G SFP+ Ports
Downlink Ports	24 × 10/100/1000 Ethernet
Stacking Capability	FlexStack-Plus & FlexStack-Extended (optional)
Management	Web UI, CLI, SNMP, Bluetooth, USB Console

Comprehensive Network Security

The switch provides advanced security, including MAC-based VLAN assignment and comprehensive 802.1X authentication. Features like Cisco TrustSec and IPv6 First-Hop Security protect against unauthorized network access, rogue devices, and address spoofing without sacrificing performance or ease of use.

Advanced Traffic Management

Flexible mechanisms for marking, classification, and scheduling deliver superior flow handling. With up to eight egress queues per port, strict priority queuing, SRR scheduling, and WTD congestion avoidance, the switch optimizes voice, video, and data traffic at line rate, minimizing latency and packet loss.

Effortless Scalability

LAN Base and IP Lite licensing leverage SDM templates to automatically optimize TCAM allocation for MAC, routing, security, and QoS. Administrators can tailor resource distribution for deployment-specific needs, ensuring seamless scalability even as network demands evolve.

Redundant Connectivity Options

The device supports Cross-stack EtherChannel and Flex Links, providing rapid failover and high availability. With link redundancy convergence times under 100 ms, business continuity is maintained even during incidents, safeguarding core applications and communications.

Integrated Smart Operations

Cisco SmartOperations provides easy network planning, deployment, monitoring, and troubleshooting. These capabilities reduce configuration times, streamline routine tasks, and lower total network operating costs, making them vital for resource-constrained IT teams.

Operational Simplicity

Tools like Cisco AutoSecure enable fast baseline security with one command, while DHCP auto-configuration accelerates switch provisioning across sites. Unified stack management ensures all switch members receive automatic updates, guaranteeing uniformity and reducing maintenance windows.

Efficient Power Management

As one of the industrys greenest switch families, the series incorporates advanced energy efficiency techniques. Intelligent PoE/PoE+ delivery, dynamic power adjustment, and optional dual power supplies maximize uptime while saving energy in daily operations.

BYOD & Device Visibility

Device sensors and classifiers enable seamless onboarding for traditional endpoints and BYOD devices. Integration with Cisco ISE allows for identity-based policy enforcement, supporting zero-trust initiatives and maintaining network segmentation across growing device populations.

Technical Specifications

Product Specifications

Feature	Value
Product Model	WS-C2960X-24TD-L
Enclosure Type	Rack-mountable - 1U
Ports	24 x 10/100/1000 + 2 x 10G SFP+
Network Management Interface	10/100 Mbps Ethernet (RJ-45)
Available PoE Power	None
Forwarding Bandwidth (Gbps)	108Gbps
Maximum Stacking Number	8
Stack Bandwidth	80 G
Forwarding Performance	95.2Mpps
Switching Bandwidth	216Gbps
Maximum Active VLANs	1023

Feature	Value
MAC Address Table Size	16K (default)
CPU Model	APM86392
CPU Frequency	600MHz dual core
RAM	256 MB
Flash Memory	64 MB
Status Indicators: Per-port	Link integrity, disabled, activity, speed, and full duplex
Status Indicators: System	System, RPS, Stack link status, link duplex and link speed
Expansion/Connectivity: Console Ports	USB (Type-B), Ethernet (RJ-45)
Stacking Cable	Optional
Power Redundancy Option	PWR-RPS2300
Voltage Range (Auto)	110V-240V
Power Consumption Operational	0.034KVA
Dimensions (W × D × H)	17.5 Inches (44.5 cm) × 11.0 Inches (27.9 cm) × 1.75 Inches (4.5 cm)
Weight	8.9 lb (4.0 Kg)
Package Weight	20.26 lb (9.19 Kg)
Rack Mounting Kit	optional
MTBF in hours	569,520
Operating Temperature up to 5000 ft (1500 m)	23ºF to 113ºF (-5ºC to 45ºC)
Operating Temperature up to 10,000 ft (3000 m)	23ºF to 104ºF (-5ºC to 40ºC)
Short-term Exception at Sea Level	23ºF to 131ºF (-5ºC to 55ºC)
Short-term Exception up to 5000 feet (1500 m)	23ºF to 122ºF (-5ºC to 50ºC)
Short-term Exception up to 10,000 feet (3000 m)	23ºF to 113ºF (-5ºC to 45ºC)
Short-term Exception up to 13,000 feet (4000 m)	23º to 104ºF (-5ºC to 40ºC)
Storage Temperature up to 15,000 feet (4573 m)	-13º to 158ºF (-25º to 70ºC)
Operating Altitude	Up to 10,000 Feet (Up to 3000 Meters)
Storage Altitude	Up to 13,000 (Up to 4000 Meters)
Operating Relative Humidity	10% to 95% noncondensing
Storage Relative Humidity	10% to 95% noncondensing

Product Comparison

Feature	C1-C2960X-24TD-L	C1-C2960X-48TD-L	C1-WS3650-24TD/K9
Downlink Ports	24 x 10/100/1000	48 x 10/100/1000	24 x 10/100/1000
Uplink Ports	2 x 10G SFP+	2 x 10G SFP+	2 x 10G SFP+
Stacking	Supported, up to 8	Supported, up to 8	Supported
Switching Bandwidth	216 Gbps	216 Gbps	176 Gbps
Forwarding Performance	95.2 Mpps	95.2 Mpps	77.4 Mpps
PoE/PoE+ Support	None	None	PoE Capable
Layer 3 Routing	Static, RIP, OSPF	Static, RIP, OSPF	Static, RIP, OSPF
Management	Web UI, CLI, SNMP	Web UI, CLI, SNMP	Web UI, CLI, SNMP
Redundant Power Supply	Optional	Optional	Optional
Dimensions (W x D x H)	17.5 x 11.0 x 1.75 in	17.5 x 11.0 x 1.75 in	17.5 x 16.0 x 1.75 in

Accessories

Category	Accessories
Included Accessories	- Power Cord - Rack Mount Kit - Console Cable
Optional Accessories	- SFP Transceiver - FlexStack Stacking Module - Redundant Power Supply

Support & Warranty

24/7 Online Service

3-Year Premium Warranty

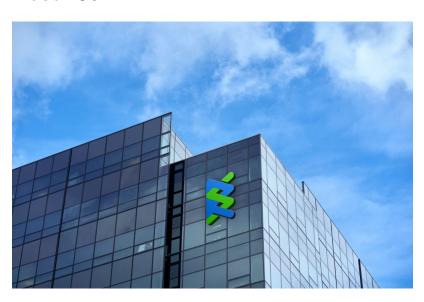**Professional Technical Support**

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High Connectivity: sales@router-switch.com
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Global Footprint

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Global Branches

Headquarters (Hong Kong)

Rm 605, 6/F, Fa Yuen Comm Bldg, 75-77 Fa Yuen St, Mongkok, Kowloon, Hong Kong, China

USA Branch

3592 Rosemead Blvd, B #220, Rosemead, CA 91770, USA

Shenzhen Branch

Jingfeng Building, 1001 Shangbu South Road, Futian District, Shenzhen, China

UK Branch

Third Floor, 207 Regent Street, London W1B 3HH, UK

References

[1] Cisco. (2024). Cisco Catalyst 2960-X and 2960-XR Series Switches Data Sheet. Retrieved from https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-2960-x-series-switches/datasheet_c78-728232.html#SwitchModelsandConfigurations