



# Cisco

# C1-C2960X-48FPD-L

## Datasheet



## Product Overview

- The Cisco Catalyst 2960-X Series delivers advanced Layer 2 and Layer 3 access switching for enterprise and branch campus networks.
- Ideal for large campuses, branch offices, and distributed businesses, this platform meets the needs of IT teams, integrators, and end users.
- Key hardware includes 48 Gigabit Ethernet ports, 2 × 10G SFP+ uplinks, and up to 740W of PoE+ power, supporting high-performance connectivity.
- The series supports intelligent features like stackable design, Perpetual PoE, and Layer 3 routing, optimizing network agility and scalability.
- Integrated management platforms, including web UI, CLI, SNMP, and Bluetooth, simplify deployment, monitoring, and troubleshooting for network administrators.
- With energy efficiency, resilience, and strong security, the Catalyst 2960-X maximizes uptime, streamlines management, and adapts to dynamic business environments.

## Product Highlights

- **Flexible Port Configuration:** Choose between 24 or 48 Gigabit Ethernet ports for scalable network access and efficient data forwarding in any deployment.
- **High-Speed Uplink Options:** Offers 4 × 1GE SFP or 2 × 10GE SFP+ uplink ports for reliable connectivity and seamless aggregation to distribution or core layers.
- **PoE+ with Perpetual Power:** Supports up to 740W PoE+ budget, allowing flexible device placement and continuous power delivery to critical devices.
- **Advanced Device and Network Management:** Control and monitor via web UI, Bluetooth, CLI, SNMP, Cisco Prime, Plug and Play, and DNA Center for simplified operations.

## Detailed Features



C1-C2960X-48FPD-L

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Component	Specification
Uplink Interfaces	2 x 10G SFP+
Ports	48 x 10/100/1000 Ethernet Gigabit ports
Stacking Capacity	Up to 8 switches
PoE Power Budget	740W
Management Interface	Web UI, CLI, SNMP, Bluetooth, RJ-45, USB



## Comprehensive Network Security

Cisco Catalyst 2960-X switches offer advanced security mechanisms such as MAC-based VLAN, TrustSec, and 802.1X authentication. Granular policies and user-based access ensure that only trusted devices communicate on the network, while IPv6 First-Hop Security and Trust Anchor Technology help prevent spoofing, unauthorized DHCP, and image tampering.

## Optimized Traffic Management

Enhanced QoS enables intelligent packet marking, classification, and queue scheduling for data, voice, and video. Up to eight egress queues and strict priority handling ensure critical traffic is prioritized. Features like Shaped Round Robin and Weighted Tail Drop reduce congestion and optimize performance for multimedia and mission-critical applications.

## Powerful Scalability and Flexibility

Switching Database Manager (SDM) templates allow network administrators to tune hardware resource allocation based on MAC, routing, security, or QoS needs. This flexibility, along with stackable design and template-based configuration, means the switch adapts efficiently to diverse deployment requirements and network growth.

## Advanced Redundancy Features

High-availability is achieved through cross-stack EtherChannel, which provides link redundancy across multiple stack members. Flex Links offer backup link support with convergence times under 100 ms, minimizing downtime. Optional dual field-replaceable power supplies further increase operational continuity for critical business services.

## Intelligent Operational Efficiency

With Cisco SmartOperations, network planning, deployment, and monitoring become faster and less labor-intensive. Automated tools shorten troubleshooting and adaptation periods, leading to quicker resolutions. Reduced configuration effort directly lowers total cost of ownership.

## Streamlined Configuration and Management

Features like Cisco AutoSecure enable rapid deployment of baseline security via single-line CLI. DHCP auto configuration expedites mass onboarding. Stacking management ensures unified firmware and settings updates across the stack, minimizing version drift and configuration errors.

## Seamless Integration with Identity Services

The device classifier and sensor support sophisticated endpoint identification, empowering Cisco Identity Services Engine (ISE) to apply precise, identity-based security policies and provisioning. This is invaluable in BYOD and diverse device environments for maintaining consistent security standards.

## Energy-Efficient Power Management

Industry-leading power-saving technologies help organizations reduce operational expenses and meet green IT goals. Smart PoE allocation, dynamic energy adjustments, and environmental monitoring collectively make the 2960-X among the most energy-efficient switches on the market.

# Technical Specifications

## Product Specifications

Feature	Value
Enclosure type	Rack-mountable - 1U
Ports	48 x 10/100/1000 + 2 x 10G SFP+
Network management Interface	10/100 Mbps Ethernet (RJ-45)
Available PoE Power	740W
Forwarding bandwidth(Gbps)	108Gbps
Maximum stacking number	8
Stack Bandwidth	80 G
Forwarding Performance	130.9Mpps
Switching bandwidth	216Gbps



Feature	Value
Maximum active VLANs	1023
MAC Address Table Size	16K (default)
CPU	APM86392 600MHz dual core
RAM	256 MB
Flash Memory	64 MB
Status Indicators (Per-port status)	Link integrity, disabled, activity, speed, and full duplex
Status Indicators (System status)	System, RPS, Stack link status, link duplex, PoE, and link speed
Console ports	USB (Type-B), Ethernet (RJ-45)
Stacking cable	Optional
Power Redundancy Option	PWR-RPS2300
Voltage range (Auto)	110V-240V
Power Consumption Operational	0.89KVA
Width	17.5 Inches (44.5 cm)
Depth	14.5 Inches (36.8 cm)
Height	1.75 Inches (4.5 cm)
Weight	12.9 lb (5.8 Kg)
Package Weight	23.48 lb (10.65 Kg)
Rack Mounting Kit	optional
MTBF in hours	233,370
Operating temperature up to 5000 ft (1500 m)	23°F to 113°F (-5°C to 45°C)
Operating temperature up to 10,000 ft (3000 m)	23°F to 104°F (-5°C to 40°C)
Short-term exception at sea level*	23°F to 131°F (-5°C to 55°C)
Short-term exception up to 5000 feet (1500 m)*	23°F to 122°F (-5°C to 50°C)
Short-term exception up to 10,000 feet (3000 m)*	23°F to 113°F (-5°C to 45°C)
Short-term exception up to 13,000 feet (4000 m)*	23° to 104°F (-5°C to 40°C)
Storage temperature up to 15,000 feet (4573 m)	-13° to 158°F (-25° to 70°C)
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-48FPD-L	C1-C2960X-24TS-L	C9200L-48P-4X-E
Fixed Ports	48 x 10/100/1000 + 2 x 10G SFP+	24 x 10/100/1000 + 2 x 10G SFP+	48 x 10/100/1000 + 4 x 10G SFP+
PoE+ Power Budget	740W	370W	740W
Stacking Bandwidth	80 Gbps	80 Gbps	160 Gbps
Maximum Stacking Number	8	8	8
Layer 3 Routing Support	Yes (static, RIP, OSPF)	Yes (static, RIP, OSPF)	Yes (static, RIP, OSPF, EIGRP, OSPFv3)
Management Options	Web UI, CLI, SNMP, Bluetooth	Web UI, CLI, SNMP, Bluetooth	Web UI, CLI, SNMP, Bluetooth, DNA Center
MAC Address Table Size	16K	16K	16K
Redundant Power Support	Yes, optional	Yes, optional	Yes, built-in
Energy Efficiency	Energy Efficient Ethernet, innovative PoE	Energy Efficient Ethernet	UPOE, advanced energy-saving features
Warranty	Enhanced Limited Lifetime	Enhanced Limited Lifetime	Limited Lifetime

## Accessories

Category	Accessories
Included Accessories	<ul style="list-style-type: none"> <li>- Power Adapter</li> <li>- Rack Mount Kit</li> <li>- Console Cable</li> </ul>
Optional Accessories	<ul style="list-style-type: none"> <li>- SFP Transceiver</li> <li>- Redundant Power Supply (PWR-RPS2300)</li> <li>- Stacking Cable</li> </ul>



## Support & Warranty



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## Global Footprint

Global Warehouses & Service Centers Across Continents.



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### Shenzhen Branch

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### UK Branch

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



### References

[1] Cisco. (2024). Cisco Catalyst 2960-X Series Switches Datasheet. Retrieved from [https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-2960-x-series-switches/datasheet\\_c78-728232.html#SwitchModelsandConfigurations](https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-2960-x-series-switches/datasheet_c78-728232.html#SwitchModelsandConfigurations)