Cisco
C1-C2960X-48LPS-L
Datasheet

Product Overview

- Cisco introduces the Catalyst 2960-X and 2960-XR Series, delivering reliable enterprise-class network switches.

- Perfect for campus, branch offices, and growing enterprises, these switches address the demands of diverse business environments.

- Key features include 48 Gigabit Ethernet ports, fast uplink options, and support for advanced Cisco IOS functionalities.

- Enjoy integrated Power over Ethernet Plus (PoE+) and advanced Layer 2 as well as Layer 3 capabilities for seamless access.

- Flexible management options simplify onboarding, setup, and monitoring, whether via web UI, CLI, or network management tools.

- This switch ensures scalable, secure, and energy-efficient connectivity for businesses seeking application visibility and network resilience.

Product Highlights

- **High-Density Gigabit Ports:** Up to 48 Gigabit Ethernet ports enable smooth device connections and scalable campus deployments.

- **Multi-Gigabit Uplink Options:** 4 fixed 1G SFP uplinks or optional 2x10G SFP+ for flexible aggregation and network expansion.

- **Enhanced Power Over Ethernet:** PoE+ with a power budget to 740W plus Perpetual PoE supports VoIP and wireless networks reliably.

- **Comprehensive Management Tools:** Manage with Web UI, CLI, Bluetooth, and advanced options like Cisco Prime and DNA Center.

Detailed Features

C1-C2960X-48LPS-L

Component	Specification
Uplink Interfaces	4 x 1G SFP
Ports	48 x 10/100/1000 Ethernet Gigabit ports
Layer Support	Layer 2 & Layer 3 (static routing, OSPF, RIP)
PoE+ Budget	Up to 740W
Stacking Capability	Supported (FlexStack-Plus/FlexStack-Extended)

Robust Network Security

Cisco Catalyst 2960-X and 2960-XR Series provide a strong security foundation, featuring MAC-based VLAN assignment, TrustSec, and comprehensive 802.1X solutions. These functions help restrict unauthorized access and mitigate network threats with user-level authentication and dynamic security policies that adapt seamlessly as your environment scales.

Layered Access Control

Advanced authentication mechanisms allow differentiated user profiles and dynamic VLAN assignments per interface. Coupled with flexible RADIUS control and IPv6 First-Hop Security, these switches protect against address spoofing and rogue DHCP attacks, essential for environments with diverse or Bring Your Own Device (BYOD) needs.

Granular Device Profiling

Device sensor and classification technologies offer versatile device detection. Integration with Cisco Identity Services Engine (ISE) enables identity-based security policies, which simplify onboarding, streamline device authorization, and keep the network policy-driven yet easily manageable.

Software Integrity Assurance

Cisco Trust Anchor Technology ensures only trustworthy IOS images are loaded, checking cryptographic signatures during boot. This universal image model simplifies deployment and helps maintain a secure, consistent software baseline across the switch fleet.

Powerful Traffic Management

Intelligent QoS allows prioritization of critical applications with up to eight egress queues per port and strict priority for voice or video. Mechanisms like Shaped Round Robin and Weighted Tail Drop keep services running even under heavy traffic, while granular policing supports up to 256 policies per port.

Flexible Scalability Options

Switching Database Manager (SDM) templates let administrators tune TCAM resources for optimal MAC, routing, security, and QoS performance. This ensures the switch adapts to different rolesfrom simple LAN access to more complex IP routing or security-focused deployments.

High Availability and Redundancy

Cross-stack EtherChannel and Flex Links guarantee robust network resilience with rapid failover. The stacks architecture supports quick convergence times and field-replaceable dual power supplies, providing business continuity even in the event of link or hardware failures.

Operational Simplicity and Efficiency

SmartOperations tools and auto-configuration features streamline deployment, management, and troubleshooting. Features such as one-line CLI for baseline security and auto-upgrading of stacked units greatly reduce operational effort and total cost of ownership for growing organizations.

Technical Specifications

Product Specifications

Feature	Value
Enclosure type	Rack-mountable - 1U
Ports	48 x 10/100/1000 + 4 x 1G SFP
Network management Interface	10/100 Mbps Ethernet (RJ-45)
Available PoE Power	370W
Forwarding bandwidth(Gbps)	108Gbps
Maximum stacking number	8
Stack Bandwidth	80 G
Forwarding Performance	107.1Mpps
Switching bandwidth	216Gbps
Maximum active VLANs	1023
MAC Address Table Size	16K (default)

Feature	Value
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 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	0.49KVA
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	276,870
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-48LPS-L	C9300L-24T-4X-A	C9300L-48UXG-4X-E
Gigabit Ethernet Ports	48 x 10/100/1000	24 x 10/100/1000	48 x 10/100/1000 Multi-Gigabit
Uplink Ports	4 x 1G SFP	4 x 10G SFP+	4 x 10G SFP+
PoE+ Support	Yes, up to 370W	Yes	Yes
Stacking Capacity	Up to 8	Up to 8	Up to 8
Switching Bandwidth	216Gbps	104Gbps	176Gbps
Forwarding Performance	107.1Mpps	77.38Mpps	130.95Mpps
Layer 3 Routing	Static, RIP, OSPF	Static, RIP, OSPF	Static, RIP, OSPF
Management Features	Web UI, CLI, SNMP	Web UI, CLI, SNMP	Web UI, CLI, SNMP
MAC Address Table	16K	16K	32K
Redundant Power Option	Supported	Supported	Supported

Accessories

Category	Accessories
Included Accessories	- Power Adapter - Basic Mounting Kit - Quick Start Guide
Optional Accessories	- SFP Transceiver Modules - FlexStack-Plus Stacking Module - Redundant Power Supply (PWR-RPS2300)

Support & Warranty

24/7 Online Service

3-Year Premium Warranty

Professional Technical Support
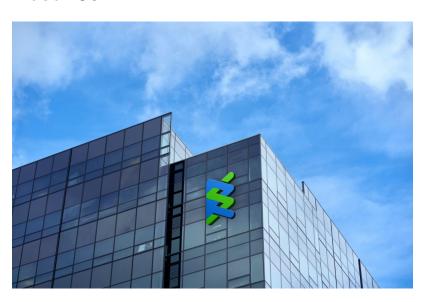
100% Low Price Guarantee

100% Quality Assurance

100% Money Back Guarantee

About Us

Router-switch.com, headquartered in Hong Kong since 2002, has been a trusted global leader in ICT distribution for 23 years. We provide cutting-edge networking, cybersecurity, data center, and AI solutions to meet evolving business needs. Our wide range includes products from top brands like Cisco, Arista, Aruba, Fortinet, Mellanox, and Huawei, ensuring access to the latest technology and innovations.

18,000+
global customers

600,000+
end-users

200+
countries & regions

23
years experience

500+
global vendors

100,000+
SKUs available

700+
local sales experts

50-98%
off global list prices

Contact Us

Email

High Connectivity: sales@router-switch.com
Expert Technical Support: ccie-support@router-switch.com
Cooperative Partnerships: ccie-support@router-switch.com

Follow Us

Facebook: @Routerswitchdotcom
LinkedIn: Router-switch.com
X: @routerswitchcom
Instagram: @routerswitchdotcom

Phone

USA: +1-626-655-0998
Hong Kong: +852-25925389 / +852-25925411

Global Footprint

Global Warehouses & Service Centers Across Continents.

London
United Kingdom

Berlin
Germany

New Jersey, NJ
United States

Mumbai
India

Los Angeles, CA
United States

Riyadh
Saudi Arabia

Shenzhen
China

Hanoi
Vietnam

Hong Kong
China

Dubai
The United Arab Emirates

Singapore
Republic of Singapore

Global Branches

Headquarters (Hong Kong)

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

Shenzhen Branch

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

USA Branch

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

UK Branch

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

References

[1] Cisco. (2023). 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