



C9600-LC-24C DataSheet

Cisco C9600-LC-24C 24-port 100G/40G QSFP28 line card for Catalyst 9600 core switch. High-density, hot-swappable, supports C9600X-SUP-2 & C9600-SUP-1.

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C9600-LC-24C Description



Cisco Catalyst C9600-LC-24C, also known as the Catalyst 9600 24-port QSFP28 line card, delivers high-density 100G and 40G fiber aggregation for campus core and data center distribution networks. This module, compatible with both C9600-SUP-1 and C9600X-SUP-2 supervisor engines, supports up to 24 non-blocking 100G/40G ports per card and enables flexible scaling, reliable performance, and simplified upgrades for the Catalyst 9600R chassis. The C9600-LC-24C is ideal for organizations seeking scalable, high-bandwidth core switching.

Product Highlights

Ports

Slot Bandwidth(C9600X-SUP-2)

Slot Bandwidth(C9600-SUP-1)

Quick Specs

Ports	24 x QSFP28 (100G/40G)
Supervisor Compatibility	C9600-SUP-1 / C9600X-SUP-2
Max Per Card Bandwidth	4.8 Tbps (SUP-2) / 2.4 Tbps (SUP-1)
Max Power Consumption	280W (SUP-2) / 200W (SUP-1)
MTBF	710,750 hours
Dimensions	1.7 x 15.0 x 13.41 in (4.32 x 38.1 x 34.06 cm)

Key Features

24 High-Speed QSFP28 Ports

Supports up to 24 non-blocking QSFP28 interfaces for 100G and 40G, enabling high-capacity aggregation in campus core and data center networks.

Dual Supervisor Compatibility & Seamless Scalability

Works with both C9600X-SUP-2 and C9600-SUP-1 supervisor engines, allowing easy upgrades and future-ready expansion. Delivers up to 4.8 Tbps per slot with SUP-2.

Flexible Deployment and Investment Protection

Enables mixed deployment with other Catalyst 9600 line cards; suitable for core and distribution layers with evolving traffic needs.

Robust Security & Network Policy

Offers hardware-level access control, advanced QoS, and secure traffic segmentation for reliable, enterprise-class networking.

Operational Excellence & Automation Ready

Supports hot swapping, tool-free installation, and Cisco programmability (NETCONF, RESTCONF, YANG), with advanced monitoring and flexible SDM templates.

High Reliability, Energy Efficient, and Global Compliance

Features high MTBF (710,750 hrs), low power draw, and compliance with CE, UL, FCC, RoHS, and other global standards for mission-critical environments.

Product Comparison

Parameter	C9600-LC-24C	C9600-LC-48YL	C9600-LC-40YL4CD
Port Types	24x QSFP28 (100G/40G)	48x SFP56 (50/25/10/1G)	40x SFP56 (50/25/10G), 2x QSFP56, 2x QSFP-DD
Supervisor Support	SUP-1, SUP-2	SUP-1, SUP-2	SUP-1, SUP-2
Max 100G Ports	24	N/A	2
Max 40G Ports	24	N/A	2
Max 50G/25G/10G Ports	N/A	48	40
Slot Bandwidth	4.8 Tbps (SUP-2)	4.8 Tbps (SUP-2)	4.8 Tbps (SUP-2)
Power Consumption	280W (SUP-2)	300W (SUP-2)	420W (SUP-2)
Dimensions (H×W×D)	1.7×15.0×13.41 in	1.7×15.0×13.41 in	1.7×15.0×13.41 in
MTBF	710,750 hrs	640,750 hrs	580,420 hrs
MACsec Support	Yes (UADP 3.0 ASIC only)	UADP ASIC only	Yes
Hot Swappable	Yes	Yes	Yes

Front Panel Components

1	Status LED	5	Ejector levers
2	Locate (Blue beacon) LED	6	Port Link LED for the port in the top row
3	100G QSFP28 or 40G QSFP+ ports	7	Port Link LED for the port in the bottom row
4	RFID embedded on the left ejector lever	-	-



Specification

Parameter	Value	Parameter	Value
Product ID	C9600-LC-24C	Line Card Type	24-port 100G/40G QSFP28
Compatible Chassis	C9606R	Supervisor Compatibility	C9600X-SUP-2, C9600-SUP-1
Fan Tray Compatibility	C9606-FAN	Power Supply Support	C9600-PWR-3KWAC, C9600-PWR-2KWAC, C9600-PWR-2KWDC

Parameter	Value	Parameter	Value
Port Types	24x QSFP28 (supports 100G/40G)	Pluggable Optics	QSFP28
Non-blocking Architecture	Yes	Slot Bandwidth	4.8 Tbps (SUP-2), 2.4 Tbps (SUP-1)
Maximum Port Density per Chassis	96 (4 cards in C9606R)	Hot Swappable	Yes
MACsec Support	Supported (UADP 3.0 ASIC only)	Max Power Consumption	280W (SUP-2), 200W (SUP-1)
Dimensions (H x W x D)	1.7 x 15.0 x 13.41 in (4.32 x 38.1 x 34.06 cm)	Weight	3.48 kg (7.67 lbs)
MTBF	710,750 hours	Operating Temperature	-5°C to 45°C (up to 6,000 ft)
Storage Temperature	-40°C to 75°C	Relative Humidity	10% to 95%, non-condensing
Altitude	-60 to 3,000 m (-197 to 9,843 ft)	Energy Efficiency	94% (typical)
Green Compliance	RoHS, WEEE, recyclable packaging	Regulatory Compliance	IEEE 802.3z, 802.3x, 802.3ab, CE, UL, FCC, VCCI, CCC, BSMI
Certifications	CE, UL, FCC, RoHS	Mixed Line Card Support	Yes, in any of 4 slots
Installation	Hot swappable, tool-free	Module MTBF	710,750 hours

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