



C9600-SUP-1 DataSheet

Cisco Catalyst C9600-SUP-1 Supervisor Engine delivers 2.4 Tbps/slot, advanced security, high-availability, and automation for Catalyst 9600 modular switches. Best for scalable campus and core network upgrades.

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C9600-SUP-1 Description



C9600-SUP-1 (Catalyst 9600 Supervisor Engine 1) is the core engine for Cisco Catalyst 9600 Series modular switches, delivering high-performance control, advanced routing, and enterprise-grade security for campus and aggregation networks. Powered by Cisco UADP 3.0 ASIC, it supports up to 2.4 Tbps per slot and 9.6 Tbps system switching capacity, ensuring non-blocking, line-rate performance. The module provides robust CPU resources (Intel x86, 16GB RAM), dual management ports (10G SFP+ and RJ45), USB, and console access. The C9600-SUP-1 enables hot swapping, supervisor redundancy, and advanced automation, making it ideal for scalable and resilient enterprise network backbones.

Product Highlights

System Switching Capacity
Per-slot Switching Capacity
Forwarding Rate

Quick Specs

Parameter	Description
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Product ID	C9600-SUP-1
Supported Chassis	Cisco Catalyst 9606R
Ports	1 x 10G SFP+ Mgmt, 1 x RJ45 Mgmt, 2 x USB 3.0, 1 x RJ45 Console, 1 x Mini USB Console
Max Slot Bandwidth	2.4 Tbps (1.2 Tbps full-duplex) per slot
System Switching Capacity	Up to 9.6 Tbps (4.8 Tbps full-duplex)
CPU / Memory	Intel 2.0 GHz x86, 8 cores, 16 GB DRAM, 16 GB Flash, SATA SSD option
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	5.45 kg (12.02 lbs)
Operating Temperature	-5° to 45°C (up to 6000 ft), -5° to 40°C (up to 10,000 ft)
MTBF	271,420 hours

Key Features

High-Performance UADP 3.0 ASIC

Delivers up to 2.4 Tbps per slot and 9.6 Tbps system switching capacity, enabling non-blocking, line-rate forwarding for enterprise-scale networks.

Advanced Enterprise Routing & Security

Supports robust Layer 2/3 routing, IPv4/IPv6, hardware-based MACsec, programmable QoS/ACL, and comprehensive policy enforcement.

Rich Management Interfaces & Automation

Includes 10G SFP+ and RJ45 management ports, dual USB, dual console, and supports model-driven automation (NETCONF, RESTCONF, YANG).

Redundancy, ISSU & Hot Swap

Enables 1+1 supervisor redundancy, seamless in-service software upgrades (ISSU), and hot-swappable operation for maximum uptime.

Enterprise-Ready CPU & Memory

Features Intel x86 CPU, 8 cores, 16GB DRAM, 16GB Flash, and SATA SSD option for enhanced programmability, analytics, and application hosting.

Flexible Integration & Investment Protection

Compatible with a wide range of Catalyst 9600 Series line cards, ensuring long-term network scalability and modular investment protection.

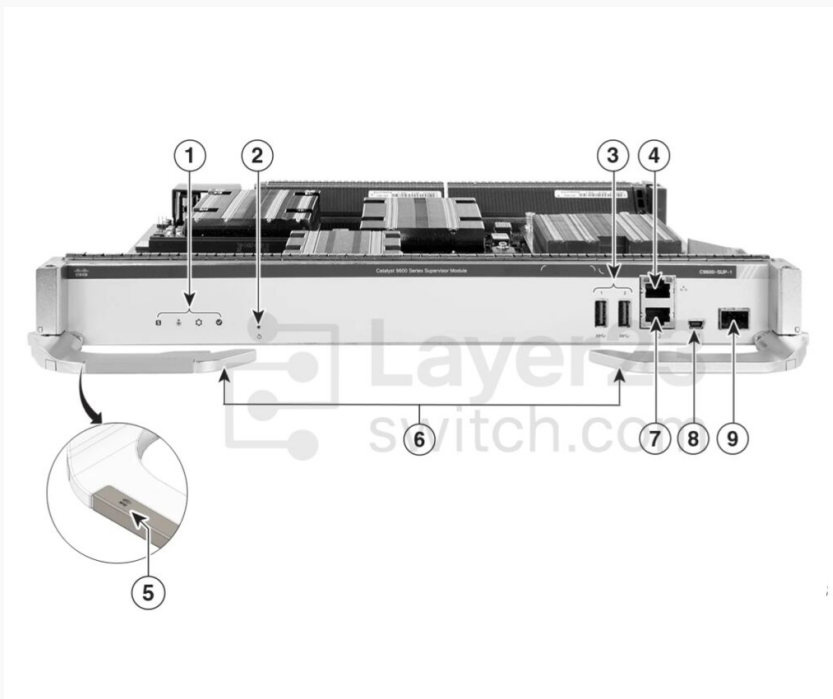
Product Comparison

Compatibility Information	C9600-SUP-1	C9600X-SUP-2
Chassis compatibility	Supported on Cisco Catalyst 9600 Series 6 Slot Chassis (C9606R).	
Minimum software requirements	Cisco IOS XE Gibraltar 16.11.1 and later releases. See the Release Notes for Cisco Catalyst 9600 Series Switches document for the latest software release requirements.	Cisco IOS XE 17.7.1 and later releases.
Chassis slot restrictions	C9606R: Slots 3 and 4 only (redundant supervisor engines supported). The primary supervisor engine can be installed in either slot.	
Bandwidth per slot	2.4 Tbps full-duplex per slot	6.4 Tbps full-duplex per slot
Memory	Dynamic Random-Access Memory (DRAM): 16 GB	Dynamic Random-Access Memory (DRAM): 32 GB
	Onboard flash: 16 GB	Onboard flash: 16 GB
Line Card compatibility	C9600-LC-40YL4CDC9600-LC-24CC9600-LC-48YLC9600-LC-48TXC9600-LC-48S	C9600-LC-40YL4CDC9600-LC-24CC9600-LC-48YLC9600-LC-48TX

Front Panel Components

1	Supervisor engine LEDs	6	Ejector levers
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2	Reset button	7	RJ-45 console port
3	USB 3.0 Type A ports	8	USB mini Type B console port
4	RJ-45 Ethernet management port	9	10 G SFP+ management port
5	RFID embedded on the left ejector lever	-	-



Specification

Parameter	Value	Parameter	Value
Product ID	C9600-SUP-1	Supported Chassis	Catalyst 9606R
Max Slot Bandwidth	2.4 Tbps (1.2 Tbps full-duplex)	System Switching Capacity	9.6 Tbps (4.8 Tbps full-duplex)
CPU / Memory	Intel 2.0 GHz x86, 8C, 16GB DRAM, 16GB Flash	SSD Support	Optional SATA SSD (up to 960GB)
Management Ports	1 x 10G SFP+ Mgmt, 1 x RJ45 Mgmt	Console Ports	1 x RJ45 Console, 1 x Mini USB Console
USB Ports	2 x USB 3.0	Supervisor Redundancy	1+1 (SSO, ISSU, hot swap)

Parameter	Value	Parameter	Value
ASIC	Cisco UADP 3.0	MACsec Support	Yes (256-bit AES)
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	5.45 kg (12.02 lbs)
Operating Temp.	-5° to 45°C (up to 6000 ft), -5° to 40°C (up to 10,000 ft)	Humidity	10% to 95%, non-condensing
MTBF	271,420 hours	Minimum Software	IOS XE 16.11.1
Automation	NETCONF, RESTCONF, YANG, ZTP	Application Hosting	Yes (SATA SSD)

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