



Cisco Nexus 9804 Switch Overview

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Cisco Nexus 9808 Switch Overview

The Cisco 9808 switch includes:

Cisco 9800 Series Switches

The following table describes the Cisco 9804 switch components, and the supported quantity.

Table 1: Cisco 9804 Switch Components

Component	Quantity
Line cards	4
Supervisor Modules	2
Fabric Modules	8
Fan trays	4
Power trays	2
Power supplies	HVAC—6 (3 per tray)

Line Card Overview

Cisco Nexus 9800 switches support the following line cards:

Table 2: Supported Line Cards and Transceivers

Line Card PIDs	Transceivers
N9K-X9836DM-A	QSFP-DD / QSFP28 / QSFP+
N9K-X98900CD-A	QSFP-DD / QSFP28 / QSFP+

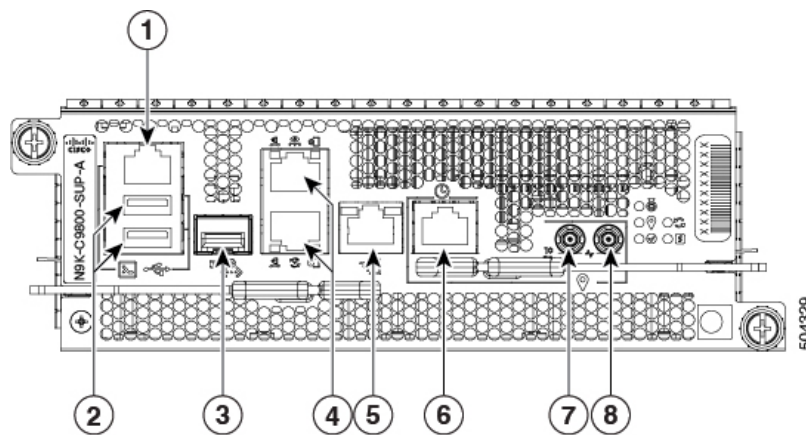


Note When unlocking the ejector button and then relocking it without removing the line card, the line card will power down. The line card will not power up and will not show **poweroff module** in command line interface. Performing OIR is required to power up the line card.

Supervisor Module Overview

Cisco Nexus 9800 Supervisor Modules (N9K-C9800-SUP-A) manage all control plane functions on the Cisco Nexus 9800 Series Switches.

Figure 1: Supervisor Module



1	Console RS-232 Serial Port RJ45	5	SyncE BITS/DTI/J.211
2	USB Port Type-A (2-ports). Port A gets detected ahead of Port B. Top: Port B Bottom: Port A	6	G.703 Time-of-Day (TOD)
3	Control Plane Expansion SFP/SFP+ port	7	1.0/2.3 50 ohm connector for 10 MHz, input, and output

4	Top: Management Ethernet (10/100/1000-Mbps) RJ-45 (Copper) port LAN. Bottom: IEEE 1588 Precision Time Protocol (PTP)	8	1.0/2.3 50 ohm connector for 1 PPS, input, and output
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Fabric Module Overview

Cisco Nexus 9804 switches support the following fabric modules:

- N9K-C9804-FM-A—Cisco Nexus 9804 Fabric Module

Temperature and Physical Specifications

For temperature and physical specifications, refer to the *Physical characteristics* table in the [Cisco Nexus 9800 Series Switches Data Sheet](#).

Weight and Power Consumption

For chassis dimensions and weight, please refer to the following table.

Weight	Unloaded: 124 lbs. (56.36 kg.) Fully loaded: 402 lbs. (183 kg.)
Dimensions	(H) 17.5 x (W) 17.45 x (D) 33 in. (44.45 x 44.32 x 83.82 cm.)
Number of Rack Units	10 RU

The following table describes the maximum power consumption of supervisors, fabric modules, fan trays and line cards in Nexus 9804 chassis.

Table 3: Power Requirements for the Cisco Nexus 9804 Switch Components

Component	Maximum power / Unit
Supervisor Module (N9K-C9800-SUP-A)	95 W
Fabric Module (N9K-C9804-FM-A)	230 W
Fan tray (N9K-C9804-FAN-A)	330 W
Line card (N9K-X9836DM-A – 36 port 400G QSFP-DD line card)	2436 W

Component	Maximum power / Unit
Line card (N9K-X98900CD-A – 34 port 100G and 14 port 400G QSFP-DD line card)	2436 W

For more information, refer to the [Cisco Nexus 9800 Series Switches Data Sheet](#).

Airflow Direction

To ensure proper airflow for the switch in your facility, position the switch with its air intake on a cold aisle and the air exhaust on a hot aisle.

Maximum Power Available to the Switch

The maximum power available for operations depends on the input power from your power source, the number and output capabilities of your power supplies, and the power redundancy mode that you use.

The following table lists the amount of power available for Cisco 9800 series switches from all available power trays.

Table 4: Maximum Power Available for a Switch with HVAC Power Supplies

Total Power Supply	Combined Mode in Watts (No redundancy)	N+1 Redundancy Mode in Watts (with Single Supply Loss)	Total Power Tray
1	6,300	—	1
2	12,600	6,300	
3	18,900	12,600	
4	25,200	18,900	2
5	31,500	25,200	
6	37,800	31,500	

Table 5: Maximum Power Available for a Switch with DC60 Power Supplies

Total Power Supply	Combined Mode in Watts (No redundancy)	N+1 Redundancy Mode in Watts (with Single Supply Loss)	N+N Redundancy Mode in Watts (with Feed Loss)	Total Power Tray
1	4,400	—	2,200	1
2	8,800	4,400	4,400	
3	13,200	8,800	6,600	
4	17,600	13,200	8,800	

Total Power Supply	Combined Mode in Watts (No redundancy)	N+1 Redundancy Mode in Watts (with Single Supply Loss)	N+N Redundancy Mode in Watts (with Feed Loss)	Total Power Tray
5	22,000	17,600	11,000	2
6	26,400	22,000	13,200	
7	30,800	26,400	15,400	
8	35,200	30,800	17,600	

Table 6: Maximum Power Available for a Switch with DC100 Power Supplies

Total Power Supply	Combined Mode in Watts (No redundancy)	N+1 Redundancy Mode in Watts (with Single Supply Loss)	N+N Redundancy Mode in Watts (with Feed Loss)	Total Power Tray
1	4,800	—	2,400	1
2	9,600	4,800	4,800	
3	14,400	9,600	7,200	
4	19,200	14,400	9,600	
5	24,000	19,200	12,000	2
6	28,800	24,000	14,400	
7	33,600	28,800	16,800	
8	38,400	33,600	19,200	

Supported Optics



Note To determine which transceivers and cables are supported by this switch, refer to the Transceiver Module Group (TMG) Compatibility Matrix Tool:

<https://tmgmatrix.cisco.com/home>

- For QSFP-DD data sheets, refer to the [Cisco 400G QSFP-DD Cable and Transceiver Modules Data Sheet](#).
- For QSFP28 data sheets, refer to the [Cisco 100GBASE QSFP-100G Modules Data Sheet](#).
- For QSFP+ data sheets, refer to the [Cisco 40GBASE QSFP Modules Data Sheet](#).
- For 10G using QSA, refer to the [Cisco 10GBASE SFP+ Modules Data Sheet](#)

