Overview

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The Cisco Nexus 9364C-GX switch (N9K-C9364C-GX) is a 2-rack unit (RU), fixed-port switch designed for spine-leaf-APIC deployment in data centers.

This switch has the following ports:

- 64 100-Gigabit QSFP28 ports

- Two management ports (one RJ-45 port and one SFP port)

- One console port

- 1 USB port

Port considerations:

- Odd numbered ports (i.e. all ports on row 1) will support breakout - even numbered ports on row 2 will be disabled. This is applicable to 1/1-60.

- The last 2 ports (1/63-64) are reserved for the default fabric links. These Ports will be used for most discovery considerations, documented below.

- 1/61-62 can be converted to down-link ports but breakout is not supported. That is because 1/61-64 belong to the same MAC quad in the ASIC and you can't mix breakout ports and non-breakout ports in the same MAC quad.

- This 4 ports per MAC quad consideration is applicable to 1/1-60 as well (for example, if 1/1 is breakout enabled, 1/3 must be breakout enabled too. - 1/2 and 1/4 are error-disabled).

For breakout information, see the Cisco APIC Layer 3 Networking Configuration Guide.

Leaf/Spine role considerations:

- This switch's default role is as a leaf switch. Due to this, ports 1-62 default to downlinks.

- The default fabric links (1/63-64) must be used for initial switch discovery via another switch.

- To change the switch from the default role, the switch must be rebooted (you must select the role of leaf or spine, except in the case of the default spine switch being connected directly to the APIC).

- A default spine switch that is connected directly to the APIC will be converted to a leaf switch, automatically.

- Port-profile (downlink/fabric link conversion) can be done after it's registered to the APIC.

Discovery considerations:

- Leaf discovery via APIC – Connect a fully-fit APIC to one of the default downlink ports (1-62).

- Leaf discovery via spine – Connect a discovered spine to one of the default fabric links (63-64).

- Spine discovery via leaf – Connect a discovered leaf to one of the default fabric links (63-64) then convert the switch to spine (reboot is required).

- Sub leaf discovery via leaf – Connect a discovered leaf to one of the default fabric links (63-64).

- Multipod (Pod 2+) first spine discovery via IPN – Connect the IPN to one of the default fabric links (63-64). Ensure the spine has at least one leaf node connected to it.

This switch includes the following user-replaceable components:

- Fan modules (four—three for operations and one for redundancy [n+1]) with the following airflow choices:

    - Port-side exhaust fan module with blue coloring (NXA-FAN-160CFM2-PE)

    - Port-side intake fan module with burgundy coloring (NXA-FAN-160CFM2-PI)

- Power supply modules (two—one for operations and one for redundancy [1+1]) with the following choices:

    - 2000-W port-side exhaust AC power supply with blue coloring (NXA-PAC-2KW-PE)

    - 2000-W port-side intake AC power supply with burgundy coloring (NXA-PAC-2KW-PI)

    - 2000-W port-side intake HVAC/HVDC power supply with burgundy coloring (NXA-PHV-2KW-PI)

    - 2000-W port-side exhaust DC power supply with blue coloring (NXA-PDC-2KW-PE)

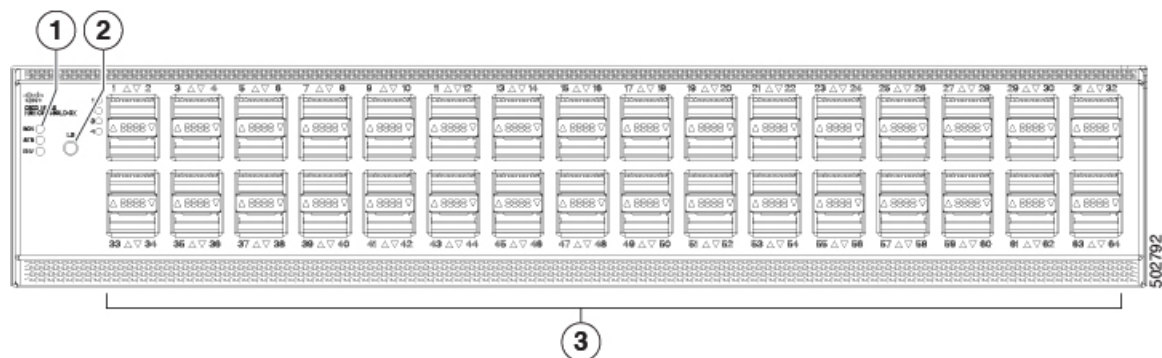   - 2000-W port-side intake DC power supply with burgundy coloring (NXA-PDC-2KW-PI)

> **Note** Power supplies are the same type. Do not mix AC, DC, or HVAC/HVDC power supplies.

> **Note** All fan modules and power supplies must use the same airflow direction.

The following figure shows the switch features on the port side of the chassis.

| 1	Beacon (BCN), Status (STS), and Environment (ENV) LEDs	3	64 100-Gigabit QSFP28 ports
2	Lane select button		

To determine which transceivers, adapters, and cables support this switch, see the Cisco Transceiver Modules Compatibility Information document.

The following figure shows the switch features on the power supply side of the chassis.
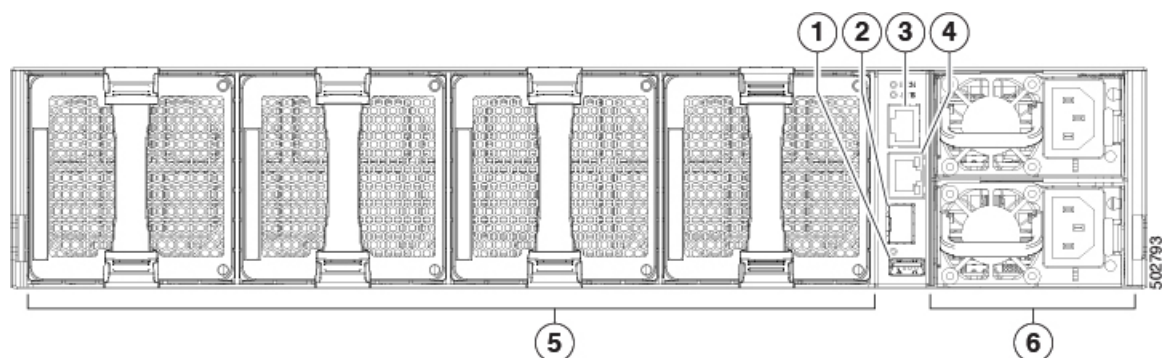
1	USB port (1)	4	Management port (1—SFP optical port)
2	Console port (1)	5	Fan modules (4) with slots numbered from 1 (left) to 4 (right)
3	Management port (1—RJ-45 copper port)	6	Power supply modules (1 or 2) (AC power supplies shown) with slots numbered 1 (top) and 2 (bottom)

The following figure shows the side of the chassis.
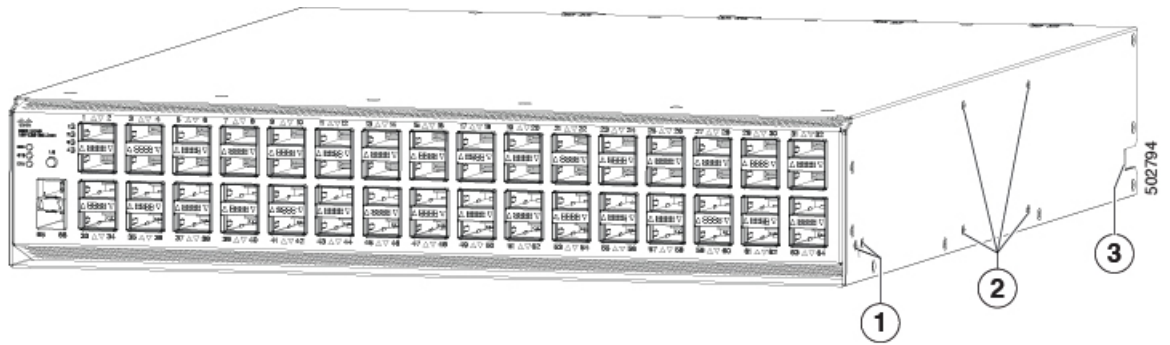
1	Screw holes for front mounting brackets (4-post rack installations)	3	Notch on both sides of the chassis for locking the power supply end of the chassis to the bottom support rails (4-post rack installations).
2	Screw holes for center-mount bracket (2-post rack installations)		

Note The access panel for DIMM upgrade is located on the underside of the chassis and uses Philips flat-head screws, M3x0.5x4mmL, CSwZNwPAT,121'.

Depending on whether you plan to position the ports in a hot or cold aisle, you can order the fan and power supply modules with port-side intake or port-side exhaust airflow. For port-side intake airflow, the fan and AC power supply modules have burgundy coloring. For port-side exhaust airflow, the fan and AC power supplies have blue coloring.

The fan and power supply modules are field replaceable. You can replace one fan module or one power supply module during operations so long as the other modules are installed and operating. If you have only one power supply installed, you can install the replacement power supply in the open slot before removing the original power supply.

Note All fan and power supply modules must have the same direction of airflow. Otherwise, the switch can overheat and shut down.

Caution If the switch has port-side intake airflow (burgundy coloring for fan modules), you must locate the ports in the cold aisle. If the switch has port-side exhaust airflow (blue coloring for fan modules), you must locate the ports in the hot aisle. If you locate the air intake in a hot aisle, the switch can overheat and shut down.