Overview

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The Cisco Nexus 9332D-GX2B switch (N9K-C9332D-GX2B) is a 1-rack unit (RU), fixed-port switch designed for spine-leaf-APIC deployment in data centers.

This switch includes the following ports:

- 400-Gigabit QSFP-DD ports (32)

- 10-Gigabit SFP+ ports (2)

- Management ports (one 10/100/1000BASE-T port and one SFP port)

- Console port (RS-232)

- USB port

Note
- If MACsec is enabled on 8 ports, then you can not use high powered (>12W) optics.

- If MACsec is enabled on 4 ports, then you can use 4 ports with high powered (>12W) optics.

- If no MACsec is enabled, then you can use 8 ports with high powered (>12W) optics.

Default port-profile information for this switch:

- Default port profile (Leaf): 24 downlinks and 8 fabric links + 2x1/10G downlinks

Leaf/Spine role considerations:

- This switch's default role is as a leaf switch.

- The default fabric links (ports 25-32) must be used for initial switch discovery via another switch.

- To change the switch from the default role, you must proceed as follows: the node appears as a discovered device in the fabric inventory view, you must set the role of the switch (spine or leaf) and the switch automatically goes for reboot to come up in the configured role.

- If you connect a default spine (i.e. a dual role switch that by default is a spine, such as Nexus 9316D-GX) directly to an APIC, the change of the role to leaf is performed automatically by APIC as well as the reboot. After that, the node appears in "Nodes pending registration" and you need to register the node.

Discovery considerations:

- Discovery via APIC – use the default downlink ports.

- Spine discovery – use the default fabric links (ports 25-32) and convert the switch to spine (reboot is required).

- Leaf discovery via spine – use the default fabric links (ports 25-32).

- Sub leaf discovery via leaf – use the default fabric links (ports 25-32).

- Multipod (Pod 2+) first spine discovery via IPN – Connect the IPN to one of the default fabric links (ports 25-32). Ensure the spine has at least one leaf node connected to it.

This switch includes the following user-replaceable components:

- Fan modules (6) with the following airflow choices:

  - Port-side intake fan module with burgundy coloring (NXA-SFAN-35CFM-PI)

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

  - 1500-W port-side intake AC power supply with blue coloring (NXA-PAC-1500W-PI)

  - 1100-W port-side intake DC power supply with burgundy coloring (NXA-PDC-1100W-PI)

Note When port-side intake DC power supplies are installed, the total power available for optics is 200W and the following limitations apply:

  - When not using high power optics (15W to 20W), then MACsec can be used on 8 ports of the switch

  - When using 4x high power optics (15W to 20W), then MACsec can be used on 4 ports of the switch

  - When using 8x high power optics (15W to 20W), then MACsec cannot be used on the switch

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

- Each fan module has two rotors. The switch can function normally if one rotor inside the any one fan module fails. In case of more than one rotor failure, the switch will issue a warning and power down in 2 minute.

The following figure shows the switch features on the port side of the chassis.
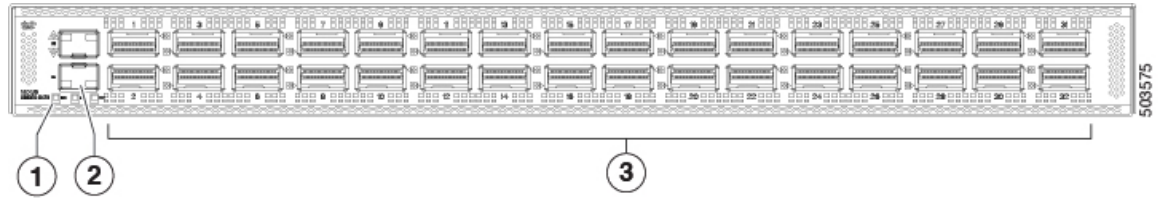
| 1	LEDs	3	400-Gigabit QSFP-DD ports (32)
2	10-Gigabit SFP+ ports (2)		

To determine which transceivers, adapters, and cables are 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.
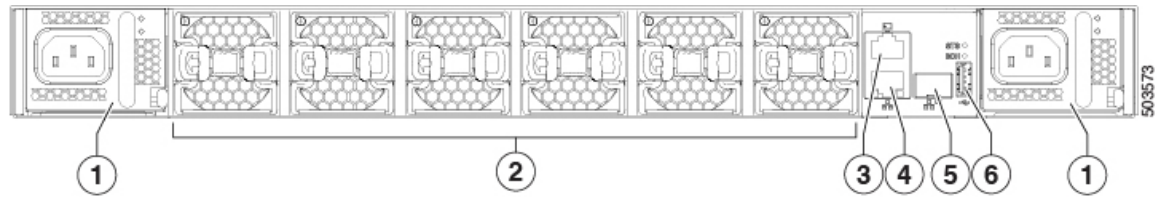
1	Power supply modules (1 or 2) (AC power supplies shown) with slots numbered 1 (left) and 2 (right)	4	Management port (RJ45)
2	Fan modules (6) with slots numbered from 1 (left) to 6 (right)	5	Management port (SFP)
3	Console port	6	USB port

The following figure shows the side of the chassis.
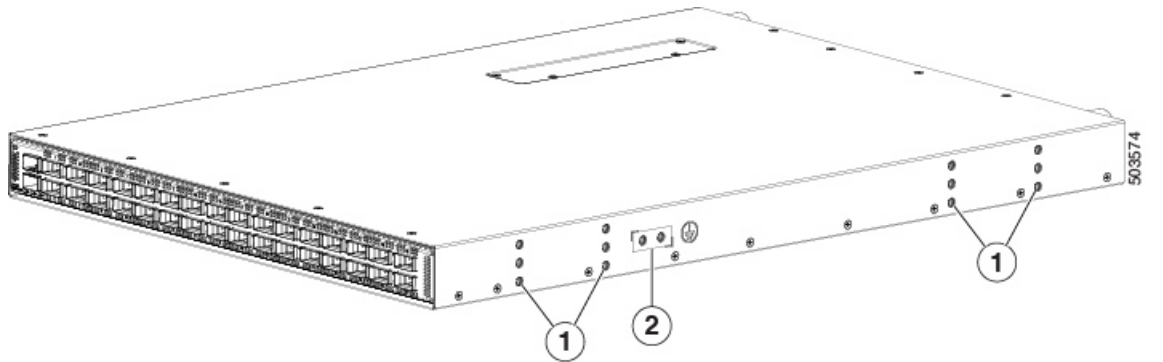
1	Screw holes for mounting brackets	2	Grounding pad

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.