



# Cisco 8100 Series Routers Overview

- [Cisco 8100 Series Routers, on page 1](#)
- [Field Replaceable Units, on page 3](#)

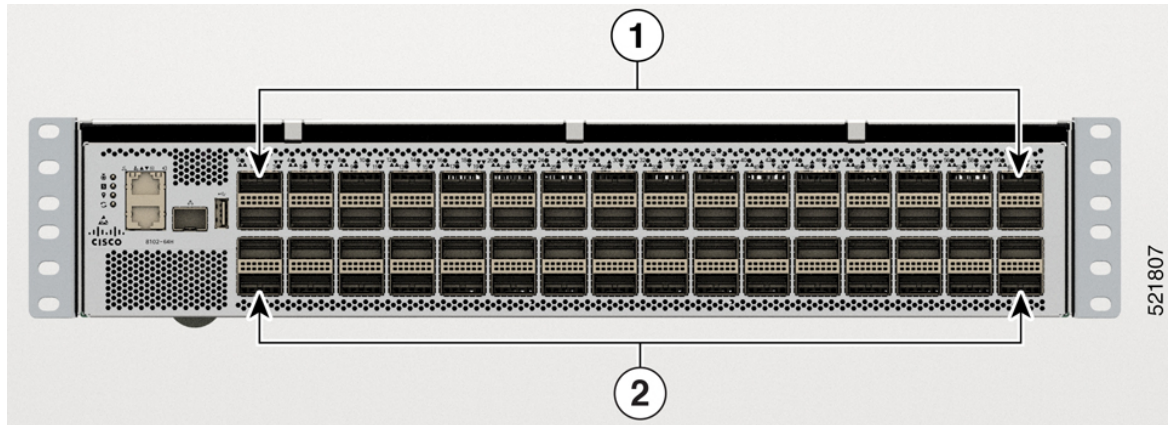
## Cisco 8100 Series Routers

The Cisco 8100 Series Routers utilizes Cisco's new Router-on-Chip (RoC) model to deliver full routing functionality with a single ASIC per router. The RoC architecture is distinguished from System-on-Chip (SoC) switches by supporting large forwarding tables, deep buffers, more flexible packet operations, and enhanced programmability.

The Cisco 8100 series routers include the following variants:

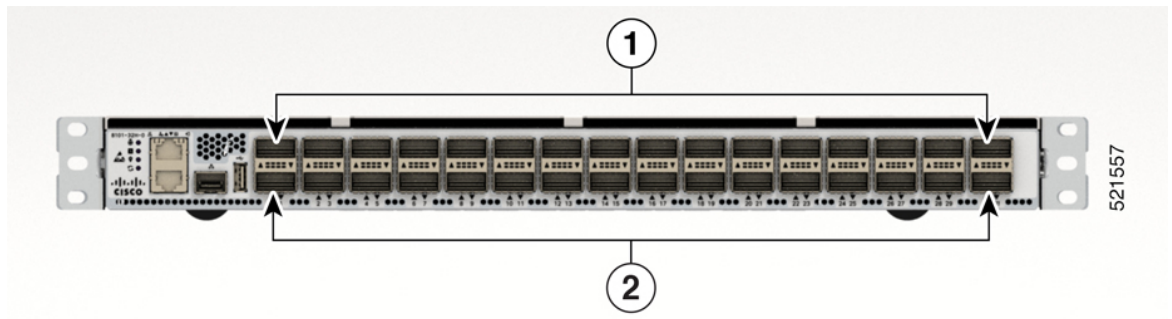
- Cisco 8102-64H - It provides 6.4 Tbps of network bandwidth with dramatically lower power consumption than contemporary 10 Tbps systems. The Cisco 8102 Router is a fixed port, high density, two rack unit form-factor router. Supported ports include 64 x 100G QSFP28.
- Cisco 8102-64H-O - It provides 6.4 Tbps of network bandwidth with dramatically lower power consumption than contemporary 10 Tbps systems. The Cisco 8102 Router is a fixed port, high density, two rack unit form-factor router. Supported ports include 64 x 100G QSFP28. The Cisco 8102-64H-O supports Cisco-qualified open-source network operating systems, such as SONiC (Software for Open Networking in the Cloud).
- Cisco 8101-32FH - It provides 12.8Tbps of network bandwidth. The Cisco 8101-32FH Router is a fixed port, high density, one rack unit form-factor router. Supported ports include 32 x 400G QSFP-DD. The functionality and installation of this router is similar to that of Cisco 8201-32FH. The Hardware Installation Guide for Cisco 8201-32FH is available [here](#).
- Cisco 8101-32FH-O - It provides 12.8Tbps of network bandwidth. The Cisco 8101-32FH Router is a fixed port, high density, one rack unit form-factor router. Supported ports include 32 x 400G QSFP-DD. The Cisco 8101-32FH-O supports Cisco-qualified open-source network operating systems, such as SONiC (Software for Open Networking in the Cloud). The functionality and installation of this router is similar to that of Cisco 8201-32FH. The Hardware Installation Guide for Cisco 8201-32FH is available [here](#).
- Cisco 8101-32H - It provides 3.2 Tbps of network bandwidth with dramatically lower power consumption than contemporary 10 Tbps systems. The Cisco 8101 Router is a fixed port, high density, one rack unit form-factor router. Supported ports include 32 x 100G QSFP28.

Figure 1: Cisco 8102-64H Router—Front View



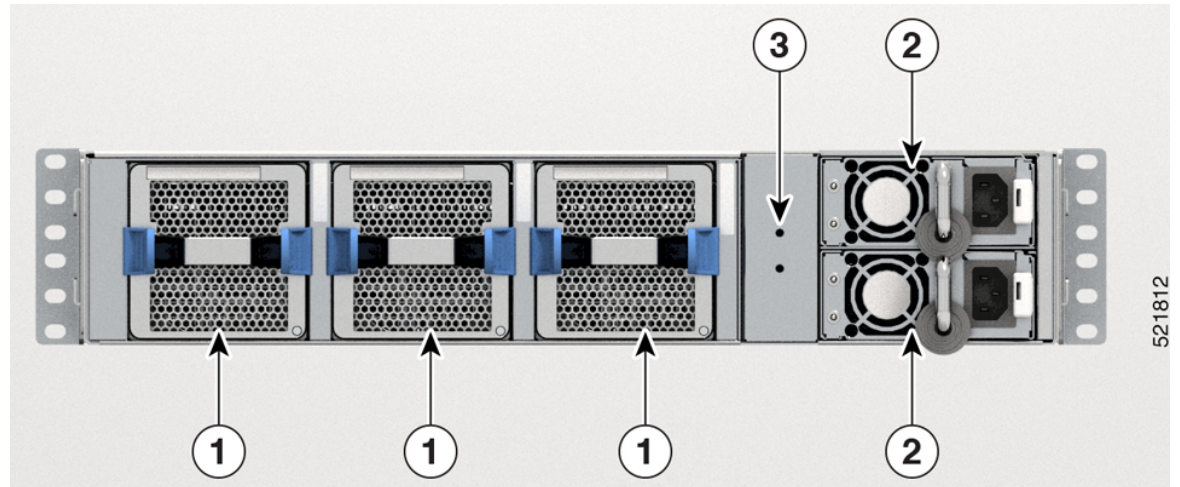
1	32 QSFP28 ports
2	32 QSPF28 ports

Figure 2: Cisco 8101-32H Router—Front View



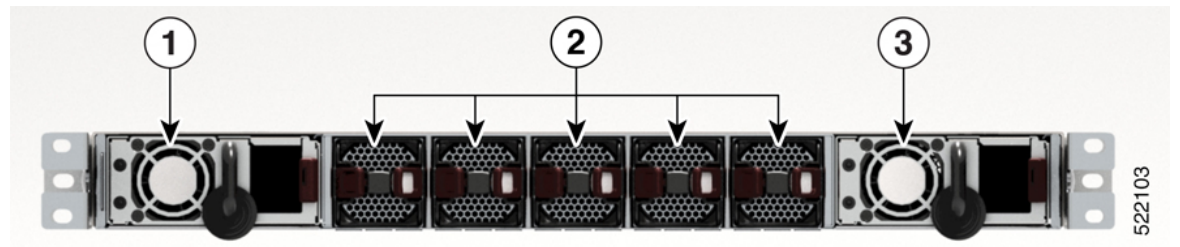
1	16 QSFP28 ports
2	16 QSPF28 ports

Figure 3: Cisco 8102-64H Router—Rear View



1	Fan Tray Three Fans: FT0, FT1, and FT2
2	PSU-0 and PSU-1
3	Ground Lug Location

Figure 4: Cisco 8101-32H Router—Rear View



1	PSU-0
2	Fan Tray Five Fans: FT0, FT1, FT2, FT3, and FT4
3	PSU-1

## Field Replaceable Units

The router has two field replaceable units (FRUs):

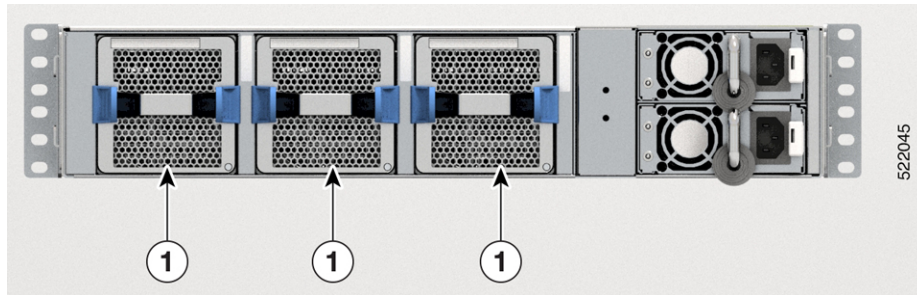
- Fan Module
- Power Supply Unit

Both the FRUs support OIR (Online Insertion and Removal).

### Fan Module

The router has three latched fan modules that install into the chassis from the rear. Fans cool the system and maintain proper airflow through the system. The fan modules work with N+1 redundancy.

**Figure 5: Fan Module - Cisco 8102-64H**

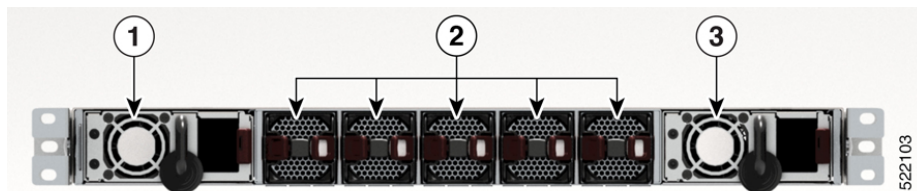


1	Fan
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**Table 1: Fan Module PIDs**

	Fan Module PID
Port side intake	FAN-2RU-PI-V2 The color of the fan module is Burgundy.
Port side exhaust	FAN-2RU-PE-V2 The color of the fan module is Blue.

**Figure 6: Fan Module - Cisco 8101-32H**



1	Fan
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**Table 2: Fan Module PIDs**

	Fan Module PID
Port side intake	FAN-1RU-PI-V2 The color of the fan module is Burgundy.

	Fan Module PID
Port side exhaust	FAN-1RU-PE-V2 The color of the fan module is Blue.

### Power Supply Unit

The router has two PSUs that install into the chassis from the rear. The PSUs work with 1+1 redundancy and the router supports two AC or two power supplies. The PSUs can be:

- AC to DC type - 650W
- DC to DC type - 930W

The PSUs provide 12V power to the entire system.

**Table 3: PIDs for Power Supply Unit**

AC PID	DC PID
<ul style="list-style-type: none"> <li>• PSU650W-ACPI</li> <li>• PSU650W-ACPE</li> </ul>	<ul style="list-style-type: none"> <li>• PSU930W-DCPI</li> <li>• PSU930W-DCPE</li> </ul>

**Figure 7: Power Supply Unit**



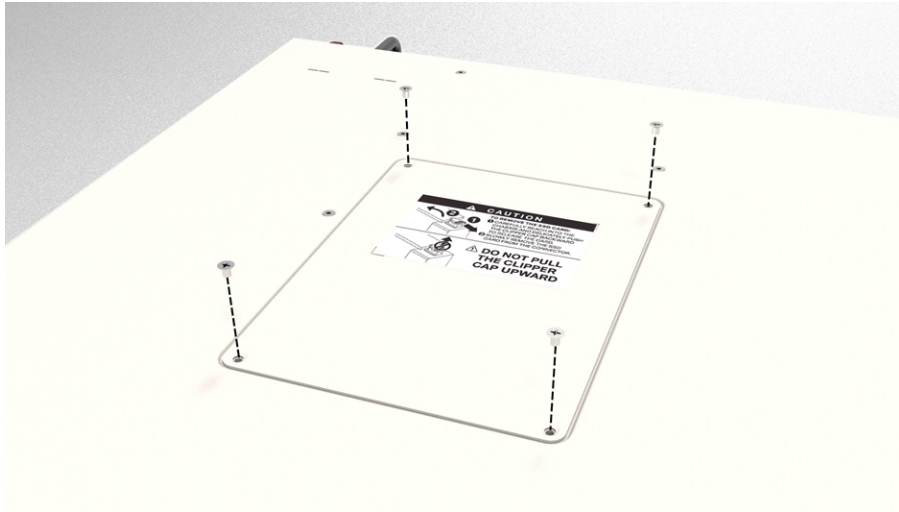
### SSD Card

The router has a removable Solid State Drive (SSD) card. We recommend to remove the SSD card before shipping the hardware for a Return Merchandise Authorization (RMA) request. Removal of the SSD card enforces customer data security while performing an RMA.

You can access the SSD card by using the hatch provided on the top panel. To remove the SSD card, follow the instructions mentioned on the printed label on the hatch.

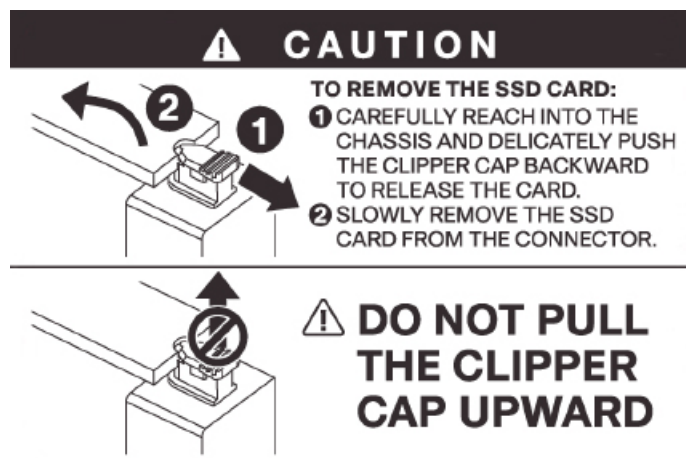


Figure 8: Remove the Hatch



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Figure 9: SSD Card Removal Instructions



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