Overview of Cisco 8100 Series Secure Routers

The Cisco 8100 Series Secure Routers offer secure branch connectivity to customers connecting small branch and remote locations to their enterprise networks over a diverse set of interfaces. This allows users and devices at these locations to access enterprise applications hosted at the campus, headquarters, data centers, or the cloud.

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About Cisco 8100 Series Secure Routers

The Cisco 8100 Series Secure Routers are the next generation, IOS XE based, multi-core, branch routers. These platforms are fixed with some pluggable cellular options.

Table 1: Base Models of the Cisco 8100 Series Secure Routers

Base Models	LAN Ports Only	WAN Ports Only	Flex L2/L3 Ports	Console Ports	Power Supply	DRAM, Flash	Storage	PoE/PoE+	Cellular Connectivity
C8130-G2	2xGE RJ45	1xGE RJ45 1xGE RJ45/SFP combo	2xGE RJ45	1xRJ45 console	30W/66W	4 GB, 16 GB	USB Type C 3.0	None	None
C8140-G2	6xGE RJ45	2xGE RJ45/SFP combo	2xGE RJ45	1xRJ45 console	66W	4 GB, 16 GB	USB Type C 3.0	None	None
C8151-G2	6xGE RJ45	2xGE RJ45/SFP combo	2xGE RJ45	1xRJ45 console	66W	8 GB, 16 GB	USB Type C 3.0	None	5G Standalone CAT 7 LTE (Pluggable)
C8161-G2	6xGE RJ45	2xGE RJ45/SFP combo	2xGE RJ45	1xRJ45 console	150W	8 GB, 16 GB	USB Type C 3.0	4PoE/2PoE+	5G Standalone CAT 7 LTE (Pluggable)

Table 2: Pluggable Modules of the Cisco 8100 Series Secure Routers

| Pluggable Interface Modules	Pluggable Interface Modules Technology
P-5GS6-R16SA-GL	5G Sub-6 GHz Pluggable Interface Module
P-LTEA7-NA	CAT7 LTE Pluggable for North America
P-LTEA7-JP	CAT7 LTE Advanced PIM for Japan
P-LTEA7-EAL	CAT7 LTE Advanced PIM for EMEA, APAC, LATAM

Chassis views

This section contains front and back panel views of the Cisco 8100 Series Secure Routers showing locations of the power and signal interfaces, interface slots, status indicators, and chassis identification labels.

Figure 1: C8130-G2- Rear view

1	System status	2	VPN

Figure 2: C8130-G2 - Front view
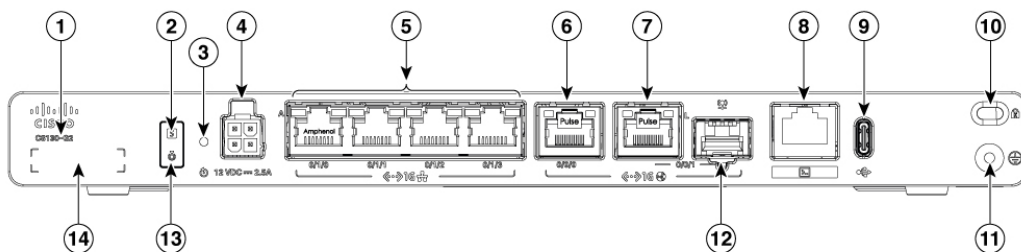
1	Product Identification Number (PID)	2	System status
3	Reset button	4	4-Pin power connector
5	GE RJ45 0/1/0 to 0/1/3	6	GE 0/0/0 - RJ45
7	GE 0/0/1 - RJ45	8	RJ45 console port
9	USB-C 3.0	10	Kensington lock slot
11	Grounding	12	GE 0/0/1 - SFP

13	Blue beacon	14	Serial number

Figure 3: C8140-G2- Rear view

| 1	System status	2	VPN

Figure 4: C8140-G2 - Front view
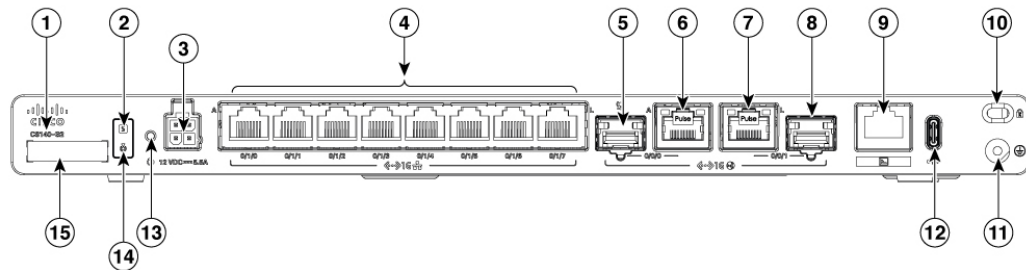
1	Product Identification Number (PID)	2	System status
3	4-Pin power connector	4	GE RJ45 0/1/0 to 0/1/7
5	GE 0/0/0 - SFP	6	GE 0/0/0 - RJ45
7	GE 0/0/1 - RJ45	8	GE 0/0/1 - SFP
9	RJ45 console port	10	Kensington lock slot
11	Grounding	12	USB-C 3.0
13	Reset button	14	Blue beacon
15	Serial number		

Figure 5: C8151-G2 - Rear view

1	System status	2	VPN

Figure 6: C8151-G2 - Front view
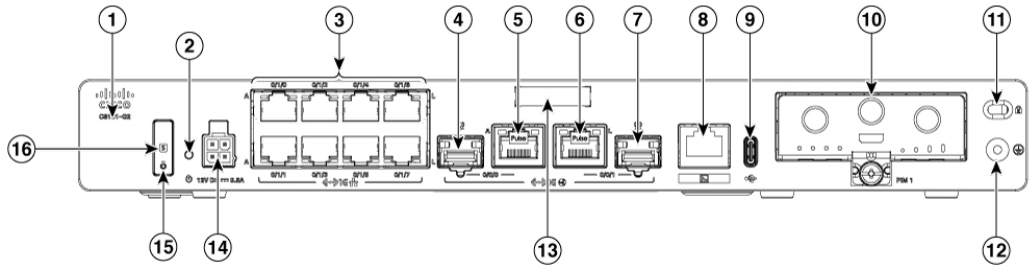
1	Product Identification Number (PID)	2	Reset button
3	GE RJ45 0/1/0 to 0/1/7	4	GE 0/0/0 - SFP
5	GE 0/0/0 - RJ45	6	GE 0/0/1 - RJ45
7	GE 0/0/1 - SFP	8	RJ45 console port
9	USB-C 3.0	10	PIM module
11	Kensington lock slot	12	Grounding
13	Serial number	14	4-Pin power connector
15	Blue beacon	16	System status

Figure 7: C8161-G2 - Rear view

1	System status	2	VPN

Figure 8: C8161-G2 - Front view
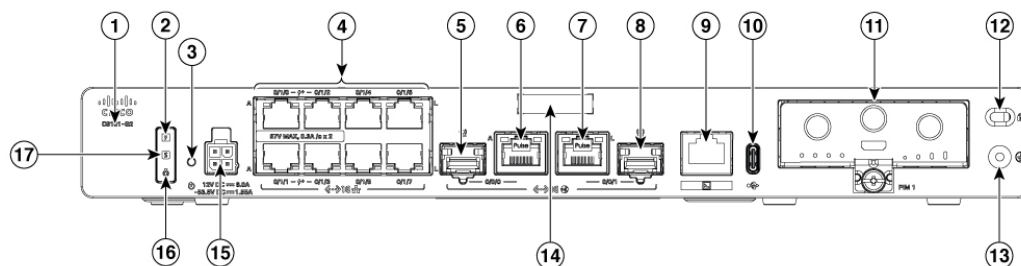
1	Product Identification Number (PID)	2	POE status
3	Reset button	4	GE RJ45 0/1/0 to 0/1/7
5	GE 0/0/0 - SFP	6	GE 0/0/0 - RJ45
7	GE 0/0/1 - RJ45	8	GE 0/0/1 - SFP
9	RJ45 console port	10	USB-C 3.0
11	PIM module	12	Kensington lock slot
13	Grounding	14	Serial number
15	4-Pin power connector	16	Blue beacon
17	System status		

Power supply

The product power specifications are specified below:

- AC input voltage: Universal 100 to 240 VAC

- Frequency: 50 to 60 Hz

- Maximum output power: Up to 30W/66W for non-PoE supply and up to 150W for PoE supply.

- PoE and PoE+ (only for C8161-G2)

- Output voltage: +12V for system power and -53.5V for PoE power.

- Dual AC PSU (with RPS adaptor): Supported

*Table 3: Power requirements for Cisco 8100 Series Secure Routers*

Device supported	Power source	Input rated	Output rated
C8130-G2	30W AC Power Adapter (PWR-CC1-30W)	100-240VAC, 1A	12V, 2.5A

Device supported	Power source	Input rated	Output rated
C8130-G2 C8140-G2 C8151-G2	66W AC Power Adapter (PWR-CC1-66W)	100-240VAC, 2A	12V, 5.5A
C8161-G2	150W AC Power Adapter (PWR-150W-AC)	100-240 VAC, 2.5A	12V 6.0A, -53.5V 1.55A

Install the router with a single PSU on an IPS tray

1. Obtain the IPS tray.

2. Align the router with the mounting holes on the IPS tray as shown in the below figure.

3. Secure the router to the tray using the provided screws.

4. Attach the velcro straps to the power supply unit (PSU).

5. Secure the PSU alongside the router using the velcro straps.

6. Connect the PSU to the router using the power cable.

Figure 9: IPS tray installation with single PSU for Cisco 8100 Series Secure Routers
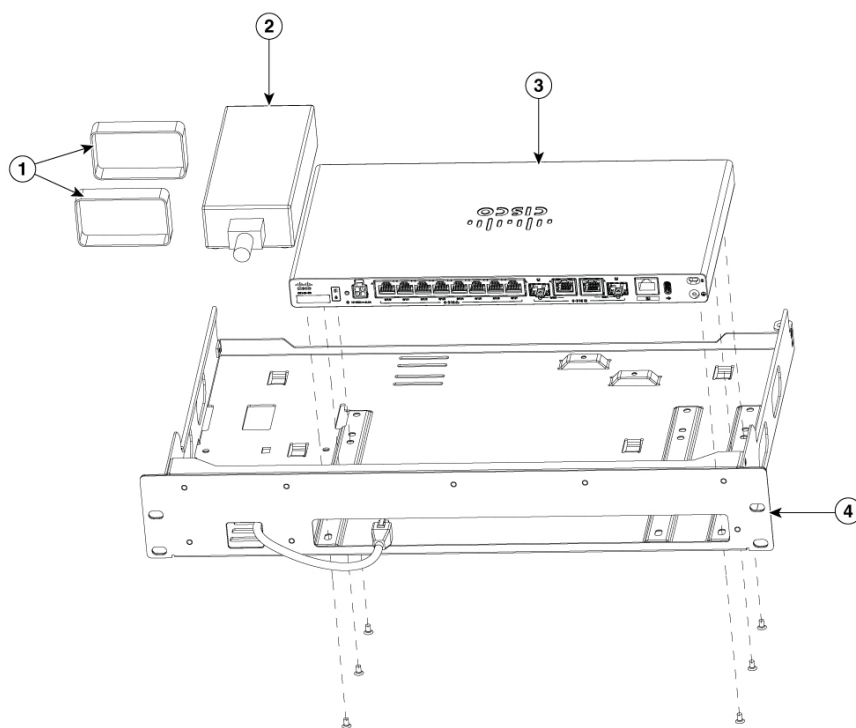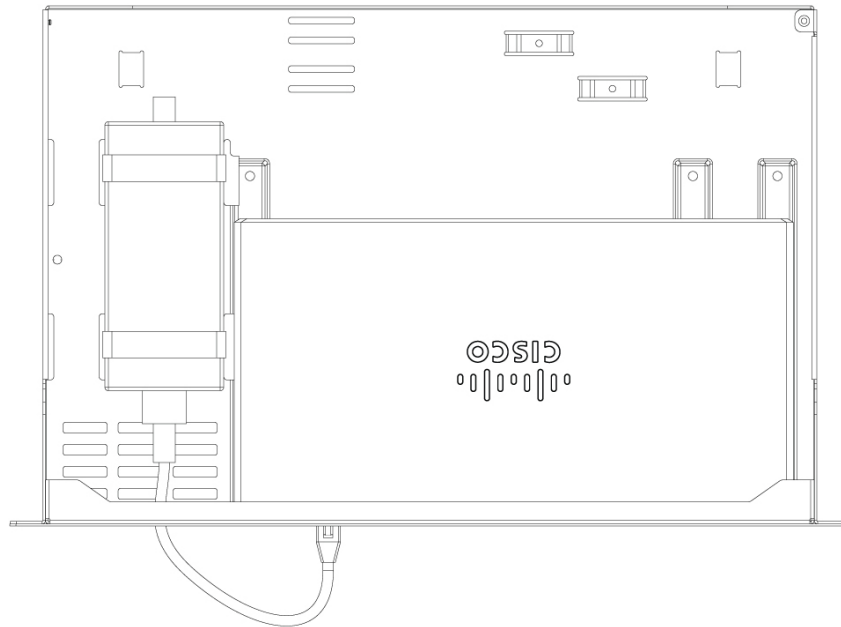

1	Velcro straps

2	Single PSU
3	Router
4	RPS tray

Figure 10: IPS tray attached with single PSU to Cisco 8100 Series Secure Routers

LED indicators

The following table summarizes the LED indicators that are located in the Rear or chassis of the Cisco 8100 Series Secure Routers.

Table 4: LED Indicators for Cisco 8100 Series Secure Routers

Port	LED color	Description
System status (Front and Rear)	Green and Amber	Off—No power.
		Steady Green - System is operating normally.
		Blinking Amber — BIOS/ROMmon is booting.
		Steady Amber — BIOS/ROMmon has completed booting, and the system is at the ROMmon prompt or booting the platform software.

Port	LED color	Description
VPN	Green	Off— No tunnel.
		Steady Green— At least one tunnel is up.
Activity (WAN and LAN ports)	Green	Off— No data transmission.
		Blinking Green - TXD/RXD data.
Link, non-PoE (WAN and LAN ports)	Green	Off— No link.
		Steady Green— Link up.
Link, with PoE (WAN and LAN ports, C8161-G2 only)	Green	Off— No link, PoE administratively down.
		Steady Green— link up; if PoE device, power is enabled.
Power over Ethernet (PoE/PoE+)	Green	Off — No -53.5V PoE power supply connected to router.
		Steady Green— -53.5V PoE power supply connected and all powered ports operating normally.
Blue beacon	Blue	Off — No attention needed.
		Blinking Blue— Beacon active.

Reset button

The actuation of the Reset button is only recognized during ROMmon boot, that is, as the router comes to the ROMmon prompt.

The Reset button does not require much force to be pressed. The Reset button should be pressed only with a small implement such as the tip of a pen or a paper clip. When the Reset button is pressed at startup, the system LED turns green.

Slots and interfaces

The Cisco 8100 Series Secure Routers designates its interfaces using a 3-tuple notation that lists the slot, sub-slot, and port in the format slot/sub-slot/port. The slot number is reserved for the motherboard, which is "0". Each interface type is allocated a sub-slot and the port number is a unique port on the interface.

Table 5: Slots and Interfaces

Sub-slot 0/x/x	Interface type
0	Ethernet WAN

Sub-slot 0/x/x	Interface type
1	Ethernet LAN
2	Cellular

Periodic inspection and cleaning

We recommend that you periodically inspect and clean the external surface of the router. Removing is recommended to minimize the negative impact of environmental dust or debris. The frequency of inspection and cleaning is dependent upon the severity of the environmental conditions, but we recommend cleaning the router once every six months.

Note   Sites with ambient temperatures consistently above 25°C or 77°F and with potentially high levels of dust or debris might require periodic preventative maintenance cleaning.

Periodic inspection and cleaning