



Cisco 8200 Series Secure Routers

A Part of the Cisco 8000 Series Secure Routers Family.

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Overview

The Cisco® 8200 Series Secure Routers deliver secure networking simplified. Powered by the all-new secure networking processor and the unified Cisco secure networking platform, the Cisco 8200 Series delivers robust platform-level security, advanced performance engineering via routing and SD-WAN, and on-premises, infrastructure-as-code, or cloud management flexibility that enables businesses to seamlessly scale and grow. Each class of secure routers is designed to deliver risk reduction, enhanced reliability, and future readiness.

Platform highlights

Designed for medium-sized branch deployments, the Cisco 8200 Series Secure Routers combine robust security, advanced performance engineering, and flexible management options. These routers offer seamless connectivity, dynamic path selection, and unified security enforcement, helping ensure resilient operations and simplified IT overhead as your network grows. With integrated security and support for high-speed 10 Gigabit Ethernet (GE) interfaces, these platforms deliver scalable and reliable performance for modern WAN edge deployments. Whether used for traditional routing or SD-WAN applications, the Cisco 8200 Series supports AI-driven growth to meet digital branch demands.

Key features

Hardware-accelerated security and networking	• Dedicated secure networking processor for fast cryptography and deep packet inspection • Hardware acceleration that helps ensure high throughput with robust threat protection
Fanless model for medium-sized branches	• Quiet, reliable, fanless SKU ideal for noise-sensitive or space-constrained sites • Fewer moving parts for lower maintenance and enhanced durability
Integrated branch connectivity	• Combines Next-Generation Firewall (NGFW) security, routing, and SD-WAN in one unified platform • Simplifies branch infrastructure and management with all-in-one secure access
Secure networking with Post-Quantum Cryptography (PQC) readiness	• Future-ready branch security with advanced, quantum-resistant encryption

Models and specifications

The Cisco 8200 Series Secure Routers offer a range of configurations to meet diverse networking needs and include the following models:

- **Cisco C8235-E-G2 and C8231-E-G2** with one NIM slot plus two 10 GE SFP/SFP+ and two 2.5 GE Multigigabit RJ-45 ports
- Cisco C8235-G2 with two 1/10 GE SFP+ and eight 2.5 GE Multigigabit RJ-45 ports
- Cisco C8231-G2 with two 1/10 GE SFP+, four 2.5 GE Multigigabit RJ-45, and four 1 GE RJ-45 ports
- Cisco C8225-G2 and C8221-G2 with two 1/10 GE SFP+ and eight 1 GE RJ-45 ports
- Cisco C8221L-G2 with two 10 GE RJ-45 and eight 1 GE RJ-45 ports
- Cisco C8211-G2 with two 1 GE RJ-45/SFP combo and four 1 GE RJ-45 ports
- Cisco C8255-G2-UCSXE (secure router node for [Cisco UCS® XE9305 Chassis](#)) with two 1/10 GE SFP+, four 2.5 GE Multigigabit RJ-45, and fourteen 1 GE RJ-45 ports

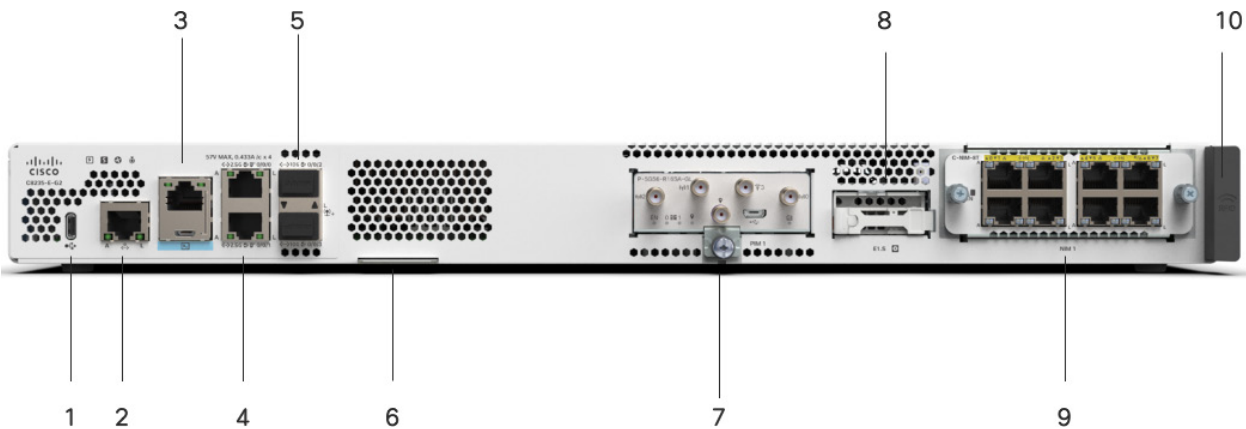


Figure 1. Front view of a Cisco C8235-E-G2 Secure Router

Table 1. Descriptions of front panel of Cisco C8235-E-G2 Secure Router

Label	Description
1	USB 3.0 Type C storage
2	Management RJ-45 port
3	Console RJ-45/Micro-USB port
4	2x 2.5 GE Multigigabit RJ-45 ports
5	2x 1/10 GE SFP+ ports
6	Label tray

Label	Description
7	PIM slot
8	E1.S storage slot
9	NIM slot
10	RFID

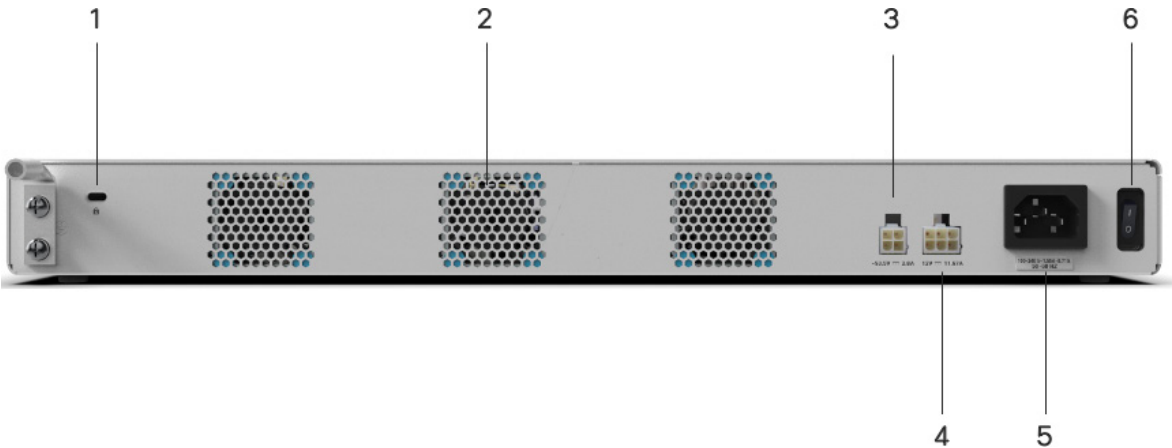


Figure 2. Rear view of a Cisco C8235-E-G2 Secure Router

Table 2. Descriptions of rear panel of a Cisco C8235-E-G2 Secure Router

Label	Description
1	Kensington lock, ground screw
2	2x fan assemblies – default (optional third fan assembly for NEBS temperature support)
3	Power over Ethernet (PoE) adapter input
4	12V DC – secondary PSU input
5	AC – primary power socket
6	Power switch

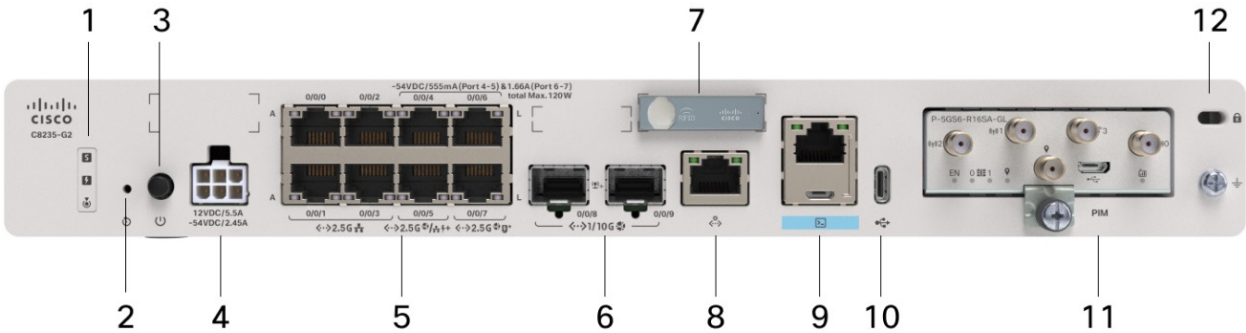


Figure 3. Front view of a Cisco C8235-G2 Secure Router

Table 3. Descriptions of front panel of Cisco C8235-G2 Secure Router

Label	Description
1	Status LEDs, blue beacon LED
2	Reset button
3	Power button
4	Power supply input (AC/AC+PoE)
5	8x 2.5 GE Multigigabit RJ-45 ports
6	2x 1/10 GE SFP+ ports
7	RFID
8	Management RJ-45 port
9	Console RJ-45 port/Micro-USB console port
10	USB 3.0 Type C storage
11	PIM slot
12	Kensington lock, ground screw

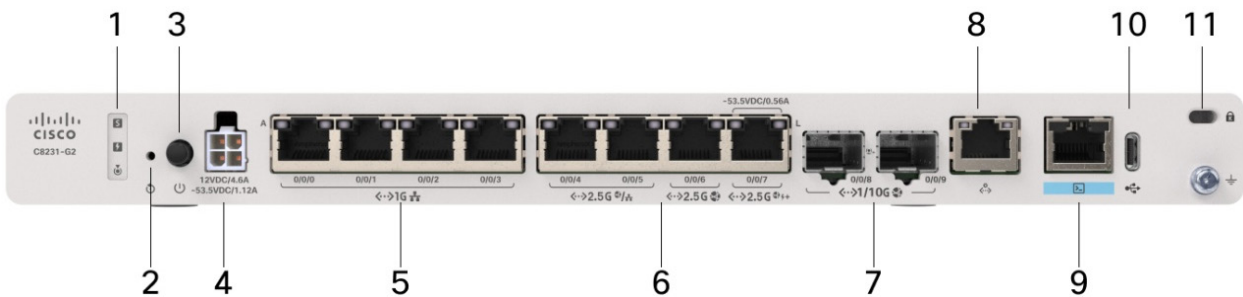


Figure 4. Front view of a Cisco C8231-G2 Secure Router

Table 4. Descriptions of front panel of a Cisco C8231-G2 Secure Router

Label	Description
1	Status LEDs, blue beacon LED
2	Reset button
3	Power button
4	Power supply input (AC/AC+PoE)
5	4x 1 GE RJ-45 ports
6	4x 2.5 GE Multigigabit RJ-45 ports
7	2x 1/10 GE SFP+ ports
8	Management RJ-45 port
9	Console RJ-45 port
10	USB 3.0 Type C storage
11	Kensington lock, ground screw

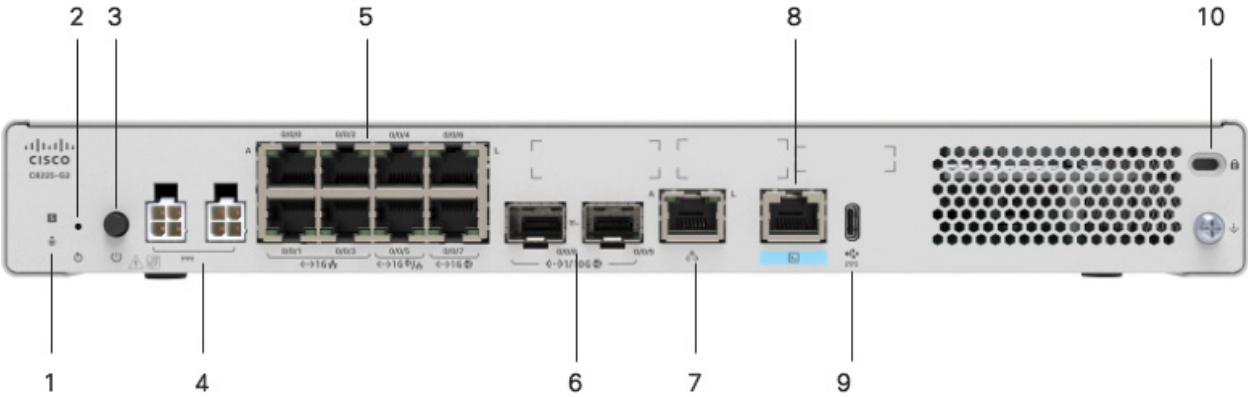


Figure 5. Front view of a Cisco C8225-G2 Secure Router

Table 5. Descriptions of front panel of a Cisco C8225-G2 Secure Router

Label	Description
1	Status LEDs, blue beacon LED
2	Reset button
3	Power button
4	Dual power supply Input
5	8x 1 GE RJ-45 ports
6	2x 1/10 GE SFP+ ports
7	Management RJ-45 port
8	Console RJ-45 port
9	USB 3.0 Type C storage
10	Kensington lock, ground screw

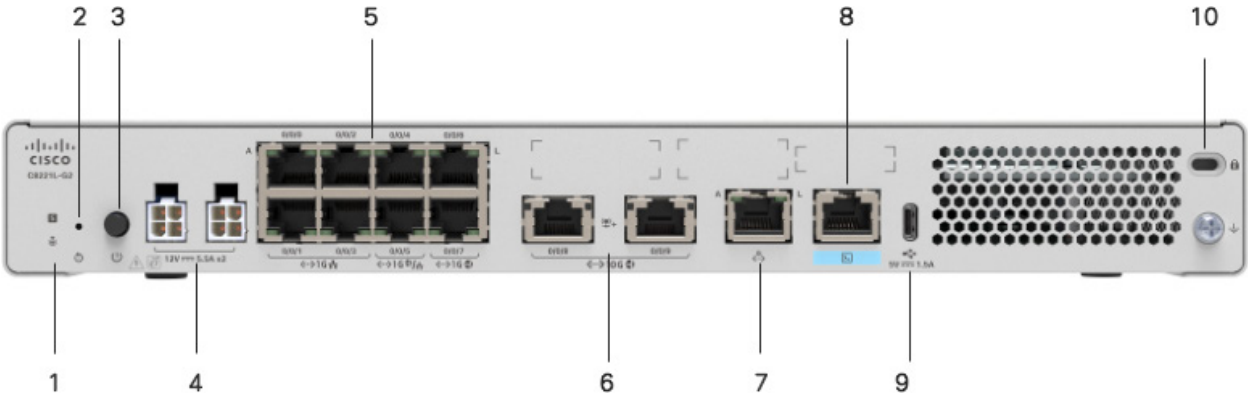


Figure 6. Front view of a Cisco C8221L-G2 Secure Router

Table 6. Descriptions of front panel of a Cisco C8221L-G2 Secure Router

Label	Description
1	Status LEDs, blue beacon LED
2	Reset button
3	Power button
4	Dual power supply Input
5	8x 1 GE RJ-45 ports
6	2x 10 GE RJ-45 ports
7	Management RJ-45 port
8	Console RJ-45 port
9	USB 3.0 Type C storage
10	Kensington lock, ground screw

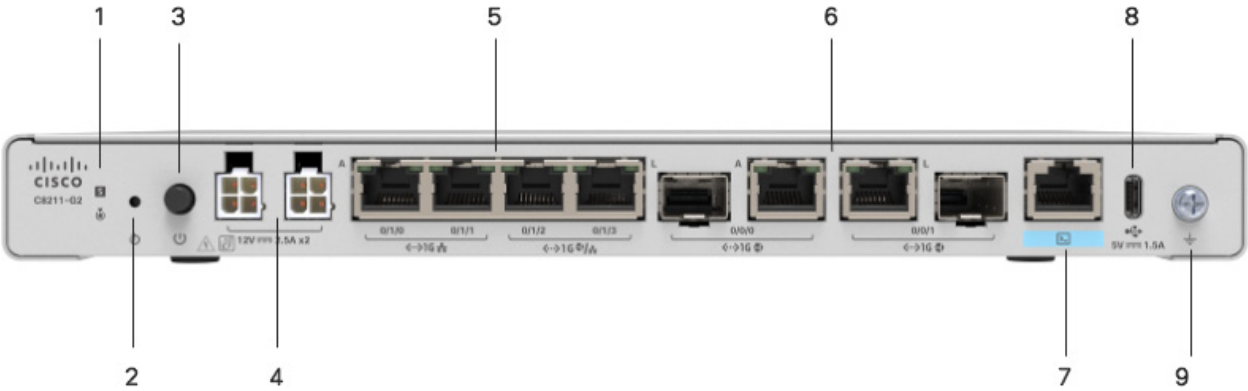


Figure 7. Front view of a Cisco C8211-G2 Secure Router

Table 7. Descriptions of front panel of a Cisco C8211-G2 Secure Router

Label	Description
1	Status LEDs, blue beacon LED
2	Reset button
3	Power button
4	Dual power supply input
5	4x 1 GE RJ-45 ports
6	2x 1 GE RJ-45/SFP combo ports
7	Console RJ-45 port
8	USB 3.0 Type C storage
9	Ground screw

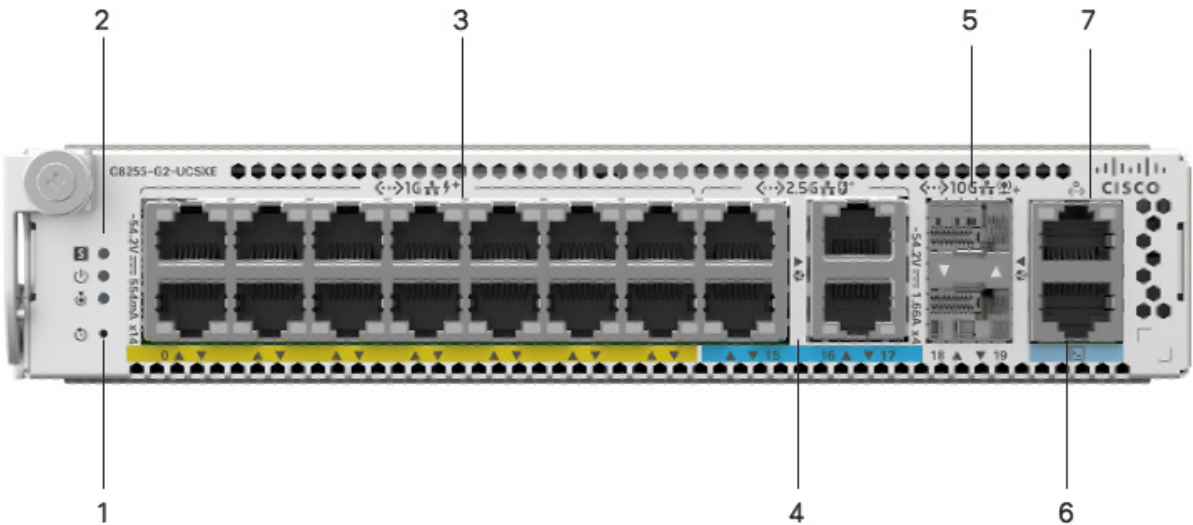


Figure 8. Front view of a Cisco C8255-G2-UCSXE Secure Router Node

Table 8. Descriptions of front panel of a Cisco C8255-G2-UCSXE Secure Router Node

Label	Description
1	Reset button
2	Status, power, and locator LEDs
3	14x 1 GE RJ-45 ports
4	4x 2.5 GE Multigigabit RJ-45 ports
5	2x 1/10 GE SFP+ ports
6	Console RJ-45 port
7	Management RJ-45 port

Table 9. Technical specifications

	C8235-E-G2 and C8231-E-G2	C8235-G2	C8231-G2
Interfaces and slots			
WAN ports	2x 1/10 GE SFP+, 2x 2.5 GE mGig RJ-45 (2x UPOE+)	2x 1/10 GE SFP+, 2x 2.5 GE mGig RJ-45 (2x UPOE+)	2x 1/10 GE SFP+, 2x 2.5 GE mGig RJ-45 (1x PoE+)
Flex ports	–	2x 2.5 GE mGig RJ-45 (2x PoE+)	2x 2.5 GE mGig RJ-45
LAN ports	–	4x 2.5 GE mGig RJ-45	4x 1 GE RJ-45
Expansion slots	1x NIM	–	–
Cellular slot	1x PIM	1x PIM	–
Management/ console port	1x RJ-45 Out-of-Band (OOB) mgmt 1x RJ-45, 1x micro-USB console	1x RJ-45 OOB mgmt 1x RJ-45, 1x micro-USB console	1x RJ-45 OOB mgmt 1x RJ-45 console
Memory and storage			
DRAM	16 GB (for C8235-E-G2), 8 GB (for C8231-E-G2)	16 GB	8 GB
Storage	16 GB (default) 600 GB	16 GB	16 GB
Power supply (default)	140W AC (internal default)	66W AC (default – external adapter)	66W AC (default – external adapter)
Power supply (upgrade options)	150W AC for PoE (external adapter) PoE budget: 120W secondary PSU option – external adapter 150W AC-DC 150W DC-DC	230W AC for PoE (external adapter) PoE budget: 120W	115W AC for PoE (external adapter) PoE budget: 30W
Typical power consumption	34.20W	27.11 W	26.70 W

	C8225-G2, C8221-G2, and C8221L-G2	C8211-G2	C8255-G2-UCSXE (secure router node for Cisco UCS XE9305 Chassis)
Interfaces and slots			
WAN ports	For C8225-G2 and C8221-G2 2x 1/10 GE SFP+, 2x 1 GE RJ-45 For C8221L-G2 2x 10 GE RJ-45, 2x 1 GE RJ-45	2x 1 GE RJ-45/SFP combo	–
Flex ports	2x 1 GE RJ-45	2x 1 GE RJ-45	2x 1/10 GE SFP+, 2x 2.5 GE mGig (UPOE+)
LAN ports	4x 1 GE RJ-45	2x 1 GE RJ-45	2x 2.5 GE mGig (UPOE+) 14x 1 GE RJ-45 (PoE+)
Cellular slot	–	–	–
Management/ console port	1x RJ-45 OOB mgmt 1x RJ-45 console	1x RJ-45 console	1x RJ-45 OOB mgmt 1x RJ-45 console
Memory and storage			
DRAM	16 GB (for C8225-G2) 8 GB (for C8221-G2 and C8221L-G2)	8 GB	16 GB
Storage	16 GB	16 GB	16 GB (default) 600 GB
Power supply (default)	66W AC (default – external adapter)	30W AC (default – external adapter)	Powered within the Cisco UCS XE9305 Chassis PoE budget – 360W
Power supply (spare options)	Secondary PSU option – external adapter 66W AC	Secondary PSU option – external adapter 30W AC	
Typical power consumption	21W	15.4W	–

Table 10. Throughput and scale

	C8235-E-G2, C8235-G2, C8225-G2, and C8255-G2-UCSXE	C8231-E-G2, C8231-G2, C8221-G2, and C8221L-G2	C8211-G2
Throughput			
Forwarding (512B)	19 Gbps	19 Gbps	5.6 Gbps
IPsec (512B)	5 Gbps	5 Gbps	3 Gbps
SD-WAN* (512B)	4 Gbps	4 Gbps	2 Gbps
Threat protection** (EMIX)	2.4 Gbps	1 Gbps	1 Gbps
Scale			
IPv4/IPv6 routes	1.5M	1.5M	1.5M
IPsec tunnels	700	700	700
IPv4 Access Control Lists (ACLs)	3000	3000	3000
IPv4 Access Control Entries (ACEs)	15,000	15,000	15,000
Network Address Translation (NAT) sessions	1.5M	1.5M	1.5M
Virtual Route Forwarding (VRF) instances	4000	4000	4000

*SD-WAN feature combination: IPsec + Quality of Service (QoS) + deep packet inspection + Flexible NetFlow

**Threat protection: 100% Direct Internet Access (DIA)-NAT + NGFW + Intrusion Prevention System (IPS) + URL Filtering + Advanced Malware Protection (AMP)

Table 11. Physical specifications

Description	C8235-E-G2 and C8231-E-G2	C8235-G2	C8231-G2
Dimensions (H x D x W)	1.73 x 17.25 x 11.81 in. (4.39 x 43.82 x 30.00 cm)	1.65 x 8.9 x 12.7 in. (4.19 x 22.60 x 32.26 cm) 2.835 x 12 x 17.56 in. (7.20 x 30.48 x 44.60 cm) with rack-mount tray holding power supply	1.14 x 8.1 x 12.23 in. (2.89 x 20.57 x 31.06 cm) 2.835 x 12 x 17.56 in. (7.20 x 30.48 x 44.60 cm) with rack-mount tray holding power supply
Rack Units (RU)	1 RU	Desktop	Desktop
Chassis weight	8.36 lb (3.79 kg)	7 lb (3.17 kg)	5 lb (2.27 kg)
Input voltage	AC: 85 to 264 VAC DC: -40 to 72V; 48V nominal	AC: 85 to 264 VAC	AC: 85 to 264 VAC
Operating temperature	0° to 40°C (32° to 104°F) up to 10,000 feet 0 to 45°C (32° to 113°F) up to 6000 feet For NEBS, -5° to 55°C (23° to 131°F) up to 6000 feet (additional third fan assembly required)	0° to 40°C (32° to 104°F) at sea level	0° to 45°C (32° to 113°F) at sea level
Storage temperature	-40° to 70°C (-40° to 158°F)	-40° to 70°C (-40° to 158°F)	-40° to 70°C (-40° to 158°F)
Relative humidity (noncondensing)	Operating: 5% to 85% Nonoperating and storage: 5% to 95%		

Description	C8225-G2, C8221-G2, and C8221L-G2	C8211-G2
Dimensions (H x D x W)	1.61 x 8.5 x 12.7 in. (4.09 x 21.59 x 32.26 cm) (2.835 x 12 x 17.56 in. [7.20 x 30.48 x 44.60 cm] with rack-mount tray holding power supply)	1.10 in x 7.2 in x 10.8 in (2.79 x 18.29 x 27.43 cm) (2.835 x 12 x 17.56 in [7.20 x 30.48 x 44.60 cm] with rack-mount tray holding power supply)
Rack Units (RU)	Desktop	Desktop
Chassis weight	5 lb (2.27 kg)	3.38 lb (1.53 kg)
Input voltage	AC: 85 to 264 VAC	AC: 85 to 264 VAC

Description	C8225-G2, C8221-G2, and C8221L-G2	C8211-G2
Operating temperature	0° to 45°C (32° to 113°F) at sea level (0° to 40°C [32° to 104°F] at sea level with dust/liquid cover)	0° to 40°C (32° to 104°F) at sea level (0° to 35°C [32° to 95°F] at sea level with dust/liquid cover)
Storage temperature	-40° to 70°C (-40° to 158°F)	-40° to 70°C (-40° to 158°F)
Relative humidity (noncondensing)	Operating: 5% to 85% Nonoperating and storage: 5% to 95%	

Modules

Table 12. Modules

Product number	Description
WAN modules	
C-NIM-WAN-2X	2-port 1/10 Gbps SFP/SFP+ WAN Module, NIM with WAN MACsec
C-NIM-WAN-4S	4-port 1 Gbps SFP WAN Module, NIM with WAN MACsec
LAN modules	
C-NIM-4X	4-port 1/10 Gbps SFP/SFP+ switch NIM, LAN/WAN MACsec and optional L3
C-NIM-8T	8-port 100 Mbps/1 Gbps switch NIM, LAN/WAN MACsec and optional L3
C-NIM-8M	8-port 100 Mbps/1/2.5 Gbps switch NIM, UPOE+, LAN/WAN MACsec and optional L3
Serial WAN interface	
NIM-1T	1-port serial high-speed WAN interface card
NIM-2T	2-port serial high-speed WAN interface card
NIM-4T	4-port serial high-speed WAN interface card
Async WAN interface	
NIM-16A	16-port Asynchronous Module
NIM-24A	24-port Asynchronous Module
Cellular modules	
P-5GS6-R16SA-GL	5G Sub-6 GHz Pluggable – 5G SA Global
P-LTEA7-NA	CAT7 LTE Advanced Pluggable – North America
P-LTEA7-EAL	CAT7 LTE Advanced Pluggable – EMEA, APAC, and LATAM
P-LTEA7-JP	CAT7 LTE Advanced Pluggable – Japan

Software management

The minimum Cisco IOS® XE release versions for the Cisco 8200 Series Secure Routers are listed in the table below.

Table 13. Minimum software releases

	Device OS	Cisco Catalyst™ SD-WAN Manager
C8235-E-G2, C8231-E-G2 C8235-G2, C8231-G2	IOS XE Release 17.18.1 and later	SD-WAN Release 20.18.1 and later
C8225-G2, C8221-G2, C8221L-G2	IOS XE Release 26.1.2 and later	SD-WAN Release 26.1.2 and later
C8255-G2-UCSXE, C8211-G2	IOS XE Release 26.2.1 and later	SD-WAN Release 26.2.1 and later

Ordering information

For a detailed overview of the ordering process, please visit the [Cisco 8000 Series Secure Routers Ordering Guide](#).

Warranty

Cisco 8200 Series Secure Routers come standard with a Cisco Limited 2-Year Return to Factory Hardware Warranty. For more information, refer to:

<https://www.cisco.com/c/en/us/products/warranties/warr-2yr-ltd-hw.html>

Sustainability profile

Cisco is embedding sustainability into the product lifecycle—from manufacturing to end of use. Designed with consideration for Cisco's [Circular Design Principles](#), our products feature both individual and portfolio-wide programs and innovations, including those that address efficient architecture design, power consumption, energy management, packaging sustainability, and takeback. These elements are pivotal in reducing operational costs and advancing net-zero Greenhouse Gas (GHG) emissions targets and other sustainability-related ambitions.

Information about Cisco's Environmental, Social, and Governance (ESG) initiatives and performance is available in [Cisco's Purpose Reporting Hub](#).

Table 14. Sustainability references

Sustainability topic		Description
Power	Power management configuration	The power management chapter in the System Management Configuration Guide provides detailed information on power management features and configurations available for the Cisco 8200 Series Secure Routers. The features discussed include power-supply modes and power-budgeting considerations.
	Auto-off ports without Small Form-Factor Pluggable (SFP)	Once enabled, the system checks for the presence of SFPs in fiber ports on a regular basis and turns on the Serializer/Deserializer (SerDes) when an SFP is detected. If no SFP is detected, the system will keep SerDes off to save energy..

Sustainability topic		Description
	Auto-off port LEDs	Once enabled, port LEDs will stay depowered, saving energy, until a link event is triggered or manually enabled by the command-line interface or Mode button..
Energy management	Energy Management dashboard	The Energy Management dashboard on the Cisco Catalyst SD-WAN Manager offers comprehensive energy management capabilities, allowing users to monitor energy usage, energy mix, costs, and greenhouse gas emissions in real time. Energy Management
	Environmental monitoring configuration	The environmental monitoring chapter in the System Management Configuration Guide provides guidelines for configuring monitoring of environmental conditions of chassis components.
Materials, modularity, and reuse	Hardware standardization and modularity	Cisco 8200 Series Secure Routers use standard subassemblies and common components across products to streamline production and enhance repairability and upgradability.
	Simplified architecture	Cisco 8200 Series Secure Routers offer a simplified architecture by consolidating multiple discrete ASIC/NPU components into a central System-on-Chip (SoC) architecture, providing multiple discrete functions in a more integrated design.
	Powder-coat finish	Cisco 8200 Series Secure Routers use a powder-coating finish instead of oil-based wet paint. This finish reduces the amount of harmful solvents used and Volatile Organic Compounds (VOCs) emitted during the painting process.
	Bezel-free design	Cisco 8200 Series Secure Routers use a bezel-free design, reducing plastic usage.
	Cisco Takeback and Reuse Program	This program allows customers to return used equipment for responsible recycling and reuse. Takeback and Reuse Program
Cisco Refresh	This program offers certified remanufactured products, providing cost-effective alternatives to new equipment. Cisco Refresh	
Foam reduction	Cisco 8200 Series Secure Routers are packaged with corrugated and fiber flute materials, containing minimum 25% post-consumer recycled content. Circular economy and packaging sustainability	

Sustainability topic		Description
Accessory opt-in		Accessory opt-in allows customers to select whether to include the accessory kit. Not including the kit results in using fewer materials and reducing waste. The default is to omit the kit unless it is required.
Regulatory compliance	Environmental compliance	Information regarding Cisco compliance with applicable environmental laws and regulations is available at the Environmental Compliance section of Cisco's Purpose Reporting Hub. Environmental compliance
	Product Approvals Status (PAS)	Information regarding the certification status for given Cisco products in certain countries is available at Cisco's self-service PAS database. PAS database
	Product-related materials compliance	This page addresses Cisco's position regarding relevant product-related materials legislation, such as Restriction of Hazardous Substances (RoHS) and Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH). RoHS and REACH
	Waste Electrical and Electronic Equipment (WEEE), battery, and packaging compliance	This page discusses Cisco's position regarding relevant product-related legislation on recycling, battery, and packaging. WEEE, battery, and packaging
	Cisco packaging materials and codes	This table provides material identification for packaging used for Cisco products. Packaging materials and codes
General	Sustainability inquiries	For ESG or CSR inquiries, please contact your Cisco account team.
	Cisco policies, positions, and guides	Links to select Cisco environmental sustainability policies, positions, and guides are provided in the "Policies, positions, and guides" section of Cisco's Purpose Reporting Hub. Policies, positions, and guides
	Cisco Green Pay	This page provides an overview of Cisco Green Pay, a financing program aimed at promoting more sustainable technology adoption by providing flexible payment options. Green Pay

Appendix

Safety and compliance

Chassis

The table below lists the safety and compliance information for the Cisco 8200 Series Secure Routers chassis.

Table 15. Chassis safety and compliance information

Safety and certifications	EMC and EMI compliance
- UL 60950-1 - CAN/CSA-C22.2 No. 60950-1 - UL 62368-1 - CAN/CSA-C22.2 No. 62368-1 - EN 60950-1 - IEC 60950-1 - IEC 62368-1 - EN 62368-1 - AS/NZS 60950.1 - AS/NZS 62368.1 - IEC/EN 60825 Laser Safety - FDA: Code of Federal Regulations Laser Safety	47 CFR Part 15 Class A - ICES 003 Class A - AS/NZS CISPR 32 Class A - CISPR 32 Class A - EN55032 Class A - VCCI-CISPR 32 Class A - CNS 13438 Class A - KS32 Class A - IEC/EN 61000-3-2: Power Line Harmonics - IEC/EN 61000-3-3: Voltage Fluctuations and Flicker - IEC/EN-61000-4-2: Electrostatic Discharge Immunity - IEC/EN-61000-4-3: Radiated Immunity - IEC/EN-61000-4-4: Electrical Fast Transient Immunity - IEC/EN-61000-4-5: Surge AC, DC, and Signal Ports - IEC/EN-61000-4-6: Immunity to Conducted Disturbances - IEC/EN-61000-4-8: Power Frequency Magnetic Field Immunity - IEC/EN-61000-4-11: Voltage DIPS, Short Interruptions, and Voltage Variations - KS C 9835 - EN300 386: Telecommunications Network Equipment (EMC) - EN55032: Multimedia Equipment (Emissions) - EN55024: Information Technology Equipment (Immunity) - EN55035: Multimedia Equipment (Immunity) - EN61000-6-1: Generic Immunity Standard



Next steps

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Bias-free language

The documentation set for this product strives to use bias-free language. For the purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product. [Learn more](#) about how Cisco is using inclusive language.

Document history

Document history	Described in	Date
Document created	Data sheet	June 10, 2025
Added new modular variant	Across document	Nov 10, 2025
Added scale numbers and removed unsupported modules	Table #6 and Table #8	Dec 5, 2025
Added new 8200 Series Secure Routers	Across document	June 2, 2026