

Catalyst 9200L-M Datasheet

Overview

The Catalyst 9200L-M addresses the most demanding enterprise applications by combining the simplicity of the Meraki dashboard with powerful switching hardware. To satisfy high-bandwidth applications and the deployment of high-speed wifi access points, the Catalyst 9200L-M provides multigigabit ports, 80GB stacking with either four fixed 1G/10G or two fixed 25G uplinks. The Catalyst 9200L-M delivers resiliency with fast stack convergence. The Catalyst 9200L-M provides Adaptive Policy using an over-the-wire tag which segments traffic into security groups to deliver scalable security. The Catalyst 9200L-M is integrated under the Meraki dashboard to provide a simply powerful solution to the most demanding wired access applications.

Adaptive Policy provides simple & scalable security policies to segment traffic using Security Groups. Security Groups are created in the dashboard using natural language such as "IOT device" & "Guest." The security policy intent (e.g., Permit or Deny) is then simply provisioned between Security Groups which results in the segmentation of each group's traffic. By making security policy management intuitive and scalable relative to legacy IP-address based Access Control Lists, Adaptive Policy empowers operators to confidently secure their network traffic independent of future network changes.



A Catalyst 9200L switch can also be migrated to a Meraki-managed persona, where it would function as its Catalyst Meraki 9200L-M equivalent. For details on the migration process, please refer to our [Getting started: Cisco Catalyst 9200 with Meraki Dashboard](#) guide.

Models

Number of Ports	Model	Description
24 Ports	C9200L-24T-4G-M	24-port 1 GbE Data with 4x 1G fixed uplinks, PWR-C5-125WAC
	C9200L-24P-4G-M	24-port 1GbE PoE+ with 4x 1G fixed uplinks, PWR-C5-600WAC
	C9200L-24T-4X-M	24-port 1 GbE Data with 4x 1G/10G fixed uplinks, PWR-C5-125WAC
	C9200L-24P-4X-M	24-port 1GbE PoE+ with 4x 1G/10G fixed uplinks, PWR-C5-600WAC

Number of Ports	Model	Description
	C9200L-24PXG-4X-M	24-port PoE+, 8 mGig(10G/5G/2.5G/1G/100M) with 4x 1G/10G fixed uplinks, PWR-C5-600WAC
	C9200L-24PXG-2Y-M	24-port PoE+, 8 mGig(10G/5G/2.5G/1G/100M) with 2x 1G/10G/25G fixed uplinks, PWR-C5-600WAC
48 Ports	C9200L-48T-4G-M	48-port 1 GbE Data with 4x 1G fixed uplinks, PWR-C5-125WAC
	C9200L-48P-4G-M	48-port 1GbE PoE+ with 4x 1G fixed uplinks, PWR-C5-1KWAC
	C9200L-48PL-4G-M	48-port 1GbE partial PoE+ with 4x 1G fixed uplinks, PWR-C5-600WAC
	C9200L-48T-4X-M	48-port 1 GbE Data with 4x 1G/10G fixed uplinks, PWR-C5-125WAC
	C9200L-48P-4X-M	48-port 1GbE PoE+ with 4x 1G/10G fixed uplinks, PWR-C5-1KWAC
	C9200L-48PL-4X-M	48-port 1GbE partial PoE+ with 4x 1G/10G fixed uplinks, PWR-C5-600WAC
	C9200L-48PXG-4X-M	48-port PoE+, 12 mGig(10G/5G/2.5G/1G/100M) with 4x 1G/10G fixed uplinks, PWR-C5-1KWAC
	C9200L-48PXG-2Y-M	48-port PoE+, 8 mGig(10G/5G/2.5G/1G/100M) with 2x 1G/10G/25G fixed uplinks, PWR-C5-1KWAC

Features

Category	Features
Highlights	Layer-3

Category	Features
	• Four SFP+(10G/1G) fixed uplinks on 4X models • Two SFP28(25G/10G/1G) fixed uplinks on 2Y models • mGig support on XG models • 80G Dual Dedicated Hardware Stacking Ports • PoE+ (30W per port) & IEEE 802.3at • Redundant hotswappable power supplies
Management	• Managed via Cisco Meraki Dashboard • Zero-touch remote provisioning (no staging needed) • Basic configuration capability via local management page • Detailed historical per-port and per-client usage statistics • Operating System, device, and hostname fingerprinting • Automatic firmware upgrades with scheduling control • SNMP and SYSLOG support for integration with other network management solutions
Remote Diagnostics	• Email, SMS and Mobile push notification alerts • Ping, traceroute, cable testing, and link failure detection with alerting • Remote packet capture • Dynamic and interactive network discovery and topology • Combined event and configuration change logs with instant search
Stacking	• Optional stacking kit allowing 8 switches in a stack with 80Gbps of stacking bandwidth • Virtual stacking supports thousands of switch ports in a single logical stack for unified management, monitoring, and configuration • Faster convergence
Ethernet Switching Capabilities	• 802.1p Quality of Service, 8 queues (w/ 6 configurable for DSCP-to-CoS mapping) • 802.1Q VLAN and trunking support for up to 4,094 VLANs (1000 active VLANs with STP enabled) • Single Instance of 802.1s Multiple Spanning Tree Protocol (interoperable with RSTP, STP, PVST, RPVST) • STP Enhancements: BPDU guard, Root guard, Loop guard, UDLD • Broadcast storm control • 802.1ab Link Layer Discovery Protocol (LLDP) and Cisco Discovery Protocol (CDP) • 802.3ad Link aggregation with up to 8 ports per aggregate, multi-chassis aggregates supported on stacked switches • Port mirroring • IGMP snooping for multicast filtering • MAC Forwarding Entries: 16K
Layer 3	• Static routing, OSPFv2 • Multicast routing (ASM: PIM-SM) • Warm Spare (VRRP) * • DHCP Server, DHCP Relay

Category	Features
Security	• Integrated multi-factor authentication for Dashboard management • Role-based access control (RBAC) with granular device and configuration control • Corporate wide password policy enforcement • IEEE 802.1X RADIUS and MAB, hybrid authentication and RADIUS server testing • Single-Host/Multi-Domain/Multi-Host/Multi Authentication • Port security: Sticky MAC, MAC Allow listing * • DHCP snooping, detection and blocking, Dynamic ARP Inspection • IPv4 and IPv6 ACLs • Secure Connect * • Adaptive Policy



* Available in a future software release

Catalyst 9200L-M Licensing

The Catalyst 9200L-M license applies to all C9200L hardware platforms. Catalyst 9200L-M license structure includes two feature tiers: Enterprise and Advanced. As with all Meraki managed switches, every Catalyst 9200L-M license is available in 1, 3, and 5 year terms.

Catalyst 9200L-M License Structure	24-Port	48-port
Advanced Features	LIC-C9200-24A	LIC-C9200-48A
Enterprise Features	LIC-C9200-24E	LIC-C9200-48E

The features available with advanced licensing are:

- [Adaptive policy](#)
- [Netflow v10 \(IPFIX\) and Encrypted Traffic Analytics](#)



In the Co-term licensing model (most existing Organizations), an Organization must either have all Catalyst 9200L-M Enterprise or all Catalyst 9200L-M Advanced licenses - they cannot be mixed. In the Per-device licensing model, a mix of Enterprise and Advanced can be added to a single Organization, but certain features may require all devices in a Network to have Advanced licenses, e.g. Adaptive Policy.



Note: [MS390s](#) and or Catalyst 9300/L/X-M existing in the same co-term Organization will require the *same* license edition (either Enterprise or Advanced) as the Catalyst 9200L-M. License types cannot be mixed and will result in an incompatible license error.

For more information on licensing, refer to [Meraki Licensing Models article](#).

[Subscription licensing](#) is also available for the Catalyst 9200L-M switches

Technical Breakdown

Interfaces Specifications

Model	Interfaces	Fixed Uplinks (SFP+/SFP28)	80G Hardware Stack Ports	Dedicated Management Interface	PoE Capabilities
C9200L-24T-4G-M	24 1G ports data	4x 1G SFP	2	1	n/a
C9200L-24P-4G-M	24 1G ports full PoE+	4x 1G SFP	2	1	30W PoE+
C9200L-24T-4X-M	24 1G ports data	4x 10G/1G SFP+	2	1	n/a
C9200L-24P-4X-M	24 1G ports full PoE+	4x 10G/1G SFP+	2	1	30W PoE+
C9200L-24PXG-4X-M	24 ports full PoE+ (8 mGig ports up to 10G, 16 ports up to 1G)	4x 10G/1G SFP+	2	1	30W PoE+
C9200L-24PXG-2Y-M	24 ports full PoE+ (8 mGig ports up to 10G, 16 ports up to 1G)	2x 25G/10G/1G SFP28	2	1	30W PoE+
C9200L-48T-4G-M	48 1G ports data	48 ports data	2	1	n/a
C9200L-48P-4G-M	48 1G ports full POE+	4x 1G SFP	2	1	30W PoE+
C9200L-48PL-4G-M	48 1G ports partial PoE+	4x 1G SFP	2	1	30W PoE+
C9200L-48T-4X-M	48 1G ports data	4x 10G/1G SFP+	2	1	n/a
C9200L-48P-4X-M	48 1G ports full PoE+	4x10G/1G SFP+	2	1	30W PoE+
C9200L-48PL-4X-M	48 1G ports partial PoE+	4x 10G/1G SFP+	2	1	30W PoE+
C9200L-48PXG-4X-M	48 ports full POE+ (12 mGig ports up to 10G, 36 ports up to 1G)	4x 10G/1G SFP+	2	1	30W PoE+
C9200L-48PXG-2Y-M	48 ports full POE+ (8 mGig ports up to 10G, 40 ports up to 1G)	2x 25G/10G/1G SFP28	2	1	30W PoE+



For supported SFP modules please refer the [SFP Datasheet](#).



Cabling Best Practices for Multi-Gigabit operations: While Category-5e cables can support multigigabit data rates upto 2.5/5/10 Gbps, external factors such as noise, alien crosstalk coupled with longer cable/cable bundle lengths can impede reliable link operation. Noise can originate from cable bundling, RFI, cable movement, lightning, power surges and other transient event. It is recommended to use Category-6a cabling for reliable multigigabit operations as it mitigates alien crosstalk by design.

Physical Specifications

Model	Dimensions (h x w x d) W/ Default Power Supply	Weight w/ Default Power Supply	Mount Type	Hot Swap Fans	Operating Temperature	Humidity
C9200L-24T-4G-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	9.59 lb (4.35 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-24P-4G-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	10.38 lb (4.71 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-24T-4X-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	9.59 lb (4.35 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-24P-4X-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	10.38 lb (4.71 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-24PXG-4X-M	1.73 x 17.5 x 15.4" (4.4 x 44.5 x 39.1cm)	12 lb (5.44 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-24PXG-2Y-M	1.73 x 17.5 x 15.4" (4.4 x 44.5 x 39.1cm)	12 lb (5.44 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-48T-4G-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	9.97 lb (4.53 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5 to 90%
C9200L-48P-4G-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	10.58 lb (4.80 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%

Model	Dimensions (h x w x d) W/ Default Power Supply	Weight w/ Default Power Supply	Mount Type	Hot Swap Fans	Operating Temperature	Humidity
C9200L-48PL-4G-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	10.58 lb (4.80 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%
C9200L-48T-4X-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	9.97 lb (4.53 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%
C9200L-48P-4X-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	10.58 lb (4.80 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%
C9200L-48PL-4X-M	1.73 x 17.5 x 12.9" (4.4 x 44.5 x 32.9cm)	10.58 lb (4.80 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%
C9200L-48PXG-4X-M	1.73 x 17.5 x 15.4" (4.4 x 44.5 x 39.1cm)	12.6 lb (5.71 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%
C9200L-48PXG-2Y-M	1.73 x 17.5 x 15.4" (4.4 x 44.5 x 39.1cm)	12.6 lb (5.71 kg)	1U Rack Mount	No, 2x	-5°C to 45°C	5% to 90%

Performance

Model	Switching Capacity	Stacking Bandwidth	Forwarding rate Single / Stack
C9200L-24T-4G-M	56 Gbps	136 Gbps	41.67 Mpps / 101 Mpps
C9200L-24P-4G-M	56 Gbps	136 Gbps	41.67 Mpps / 101 Mpps
C9200L-24T-4X-M	128 Gbps	208 Gbps	95.23 Mpps / 155 Mpps
C9200L-24P-4X-M	128 Gbps	208 Gbps	95.23 Mpps / 155 Mpps
C9200L-24PXG-4X-M	272 Gbps	352 Gbps	214.28 Mpps / 262 Mpps
C9200L-24PXG-2Y-M	292 Gbps	372 Gbps	229.16 Mpps / 277 Mpps
C9200L-48T-4G-M	104 Gbps	184 Gbps	77.38 Mpps / 137 Mpps

Model	Switching Capacity	Stacking Bandwidth	Forwarding rate Single / Stack
C9200L-48P-4G-M	104 Gbps	184 Gbps	77.38 Mpps / 137 Mpps
C9200L-48PL-4G-M	104 Gbps	184 Gbps	77.38 Mpps / 137 Mpps
C9200L-48T-4X-M	176 Gbps	256 Gbps	130.95 Mpps / 190 Mpps
C9200L-48P-4X-M	176 Gbps	256 Gbps	130.95 Mpps / 190 Mpps
C9200L-48PL-4X-M	176 Gbps	256 Gbps	130.95 Mpps / 190 Mpps
C9200L-48PXG-4X-M	392 Gbps	472 Gbps	291.66 Mpps / 351 Mpps
C9200L-48PXG-2Y-M	340 Gbps	420 Gbps	252.97 Mpps / 313 Mpps

Power Supply and Specifications

Model	Default Power Supply	Hot Swap Power Supply	Available PoE W/ Primary PS	PoE W/ Secondary PS**	Power Load (idle/max)
C9200L-24T-4G-M	PWR-C5-125WAC	Yes, Dual	n/a	n/a	27.39 / 36.23 W
C9200L-24P-4G-M	PWR-C5-600WAC	Yes, Dual	370W	740W	39.59 / 466.34 W
C9200L-24T-4X-M	PWR-C5-125WAC	Yes, Dual	n/a	n/a	27.82 / 38.6 W
C9200L-24P-4X-M	PWR-C5-600WAC	Yes, Dual	370W	740W	39.48 / 434.06 W
C9200L-24PXG-4X-M	PWR-C5-600WAC	Yes, Dual	370W	740W	64.54 / 472.39 W
C9200L-24PXG-2Y-M	PWR-C5-600WAC	Yes, Dual	370W	740W	65.58 / 489.62 W
C9200L-48T-4G-M	PWR-C5-125WAC	Yes, Dual	n/a	n/a	33.85 / 47.33 W
C9200L-48P-4G-M	PWR-C5-1KWAC	Yes, Dual	740W	1440W	45.82 / 933.03 W
C9200L-48PL-4G-M	PWR-C5-600WAC	Yes, Dual	370W	740W	39.59 / 466.34 W
C9200L-48T-4X-M	PWR-C5-125WAC	Yes, Dual	n/a	n/a	36.08 / 53.60 W
C9200L-48P-4X-M	PWR-C5-1KWAC	Yes, Dual	740W	1440W	50.31 / 872.6 W
C9200L-48PL-4X-M	PWR-C5-600WAC	Yes, Dual	370W	740W	40.17 / 445.35

Model	Default Power Supply	Hot Swap Power Supply	Available PoE W/ Primary PS	PoE W/ Secondary PS**	Power Load (idle/max)
C9200L-48PXG-4X-M	PWR-C5-1KWAC	Yes, Dual	740W	1440W	72.14 / 930.11 W
C9200L-48PXG-2Y-M	PWR-C5-1KWAC	Yes, Dual	740W	1440W	71.45 / 934.08 W



* Limited by port number and port rating (e.g. 24 PoE+ 30W ports = 720W)

** The PoE values are provided considering the secondary PS to be the default power supply of the respective model.

C6 variant is not supported in C9200L. Please refer to [Unsupported Power Supplies on Catalyst 9200 and 9200L switches](#)

Package contents

In addition to the MS switch, each shipment includes the following.

- 1 x default power supply unit for the switch model (please refer to the [Power Supply and Specifications](#) section)
- Rack mount brackets
- 2 x Pre-installed fans.
- **STACKING NOTE:** The C9200L does NOT include stacking ports by default. Please order the C9200L-STAK-KIT-M with every C9200L switch that you plan to deploy in a stack. That kit includes two stacking ports and a 50cm stacking cable.

Optional Accessories

Accessory	Description
PWR-C5-125WAC-M	125W AC Power Supply
PWR-C5-600WAC-M	600W AC Power Supply
PWR-C5-1KWAC-M	1000W AC Power Supply
C9200L-STAK-KIT-M	Stack Kit for 9200L. Includes two adapters and one 50cm stack cable
STACK-T4-50CM-M	50 cm Stacking Cable Spare
STACK-T4-1M-M	1m Stacking Cable Spare
STACK-T4-3M-M	3M Stacking Cable Spare

SFP Modules

The following SFP/Fiber transceivers are supported. For detailed SFP specifications, refer to the [Meraki SFP datasheet](#). For information about Cisco Optics compatibility, please click [here](#)

Transceiver Model	Standard
1 Gbps	
MA-SFP-1GB-SX	1000BASE-SX over OM1/2/3/4 up to distances of 1KM
MA-SFP-1GB-LX10	1000BASE-LX10 over OS1/OS2 up to distances of 10KM
10 Gbps	
MA-SFP-10GB-SR	10GBASE-SR over OM1/2/3/4 up to distances of 400 M
MA-SFP-10GB-LR	10GBASE-LR over OS1/2 up to distances of 10 KM
MA-SFP-10GB-ER	10GBASE-ER over OS1/2 up to distances of 40 KM
MA-SFP-10GB-ZR	10GBASE-ZR over OS1/2 up to distances of 80 KM
MA-SFP-10GB-LRM	10GBASE-LRM over OM1/2/3, OS1/2 up to distances of 300 M
Direct Attach	
MA-CBL-TA-1M	10GSFP+Cu Passive Twinax
MA-CBL-TA-3M	

Regulations and Compliance

Electromagnetic Compatibility	FCC Part 15 (CFR 47) Class A ICES-003 Class A EN 55032 Class A CISPR 32 Class A AS/NZS 3548 Class A BSMI Class A VCCI Class A CISPR 35 EN 55035, EN300 386* , EN 61000-3-2, EN 61000-3-3
Certifications	
Safety	UL 60950-1/62368-1, CAN/CSA-C22.2 No. 60950-1/62368-1, EN 60950-1/62368-1, IEC 60950-1/62368-1, CCC, CE Marking
Environmental	Reduction of Hazardous Substances (ROHS) 5
Warranty	Full lifetime hardware warranty with next-day advanced replacement included

MTBF Rating

Model	MTBF
C9200L-24T-4G-M	531,030
C9200L-24P-4G-M	392,210
C9200L-24T-4X-M	525,990
C9200L-24P-4X-M	390,310
C9200L-24PXG-4X-M	379,410
C9200L-24PXG-2Y-M	374,730
C9200L-48T-4G-M	508,700
C9200L-48P-4G-M	347,760
C9200L-48PL-4G-M	347,760
C9200L-48T-4X-M	503,400
C9200L-48P-4X-M	346,270
C9200L-48PL-4X-M	346,270
C9200L-48PXG-4X-M	379,410
C9200L-48PXG-2Y-M	337,360

Installation Guide

For instructions on how to install and configure the C9200L series switch please refer the [C9200L Series Installation Guide](#)