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## MS210 Overview and Specifications

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### Overview

Cisco Meraki MS210 stackable switches provide basic Layer 3 connectivity ideal for branch and campus deployments. The MS210 series features a variety of power options designed to meet the diverse needs of branch and campus deployments.

With 5 different models, capable of providing up to 740W of PoE+ power over a variety of port densities, including SFP capable uplinks, the MS210 line is fully ready to support future wireless infrastructure deployments across a variety of different environments.



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### Features

- Managed via Cisco Meraki Dashboard
- Remote Packet Capture Tools via Meraki Dashboard
- Automatic Firmware upgrades
- SNMP/Syslog Integration
- IPv4/6 ACL support
- 802.1q VLAN tagging
- Static routing
- 2x Dedicated Stack Ports providing 80G of Stacking bandwidth
- Broadcast Storm Control
- Dynamic ARP Inspection / DHCP Snooping
- 802.1X Authentication
- 10/100/1000 Mbps RJ45
- 4x 1000 Mbps SFP models available
- PoE and PoE+ models available for device level powering

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## Configuration

The basic initial configuration of the MS210 is just as simple as any other model of MS switch. The links below provide additional information and instructions relating to each step in getting the device setup and configured for the first time.

1. [Claim the device to an Organization on the Meraki Dashboard](#)
  - a. If a Dashboard Organization does not yet exist, [Create one](#)
2. [Add the device to a Dashboard Network](#)
  - a. If a Network does not yet exist, [Create one first](#)
3. Physically connect the device to the local network
  - a. Connect one of the RJ45 ports to existing infrastructure to provide a temporary uplink
  - b. Power on the device and let it check in to the Dashboard
  - c. If necessary, configure a Static IP through the [Local Status Page](#) to allow it to communicate with the Meraki Dashboard.
4. Allow the device to complete check-in and perform any initial firmware upgrades
5. Finish configuring the device from the Meraki Dashboard
  - a. [Create a Switch Stack](#)
  - b. [Manage local VLANs / Port configuration](#)
  - c. [Configure Layer 3 Routing](#)

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## Context and Comparisons

	MS120-48FP	MS210-24P	MS210-48FP
1GbE RJ45	48	24	48
1GbE SFP	4	4	4
Hardware Stack Port	-	2	2
Dedicated Mgmt Interface	1	1	1
Redundant Power Supply	-	External RPS (optional)	External RPS (optional)
PoE/PoE+ Capable	Yes, 740W	Yes, 370W	Yes, 740W
Layer 3 Routing	-	Static Routing	Static Routing
Max Stacking Bandwidth	-	80 Gbps	80 Gbps

<b>Max Switching Capacity</b>	104 Gbps	128 Gbps	176 Gbps
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## Technical Breakdown

### Hardware Breakdown

	<b>MS210-24</b>	<b>MS210-24P</b>	<b>MS210-48</b>	<b>MS210-48LP</b>	<b>MS210-48FP</b>
<b>1GbE RJ45</b>	24	24	48	48	48
<b>1GbE SFP</b>	4	4	4	4	4
<b>Hardware Stack Port</b>	2	2	2	2	2
<b>Dedicated Mgmt Interface</b>	1	1	1	1	1
<b>Fan Operation</b>	Fanless Operation	Fixed Internal	Fanless Operation	Fixed Internal	Fixed Internal
<b>Power Supply</b>	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal
<b>Redundant Power Supply</b>	External RPS* (optional)	External RPS* (optional)	External RPS* (optional)	External RPS* (optional)	External RPS* (optional)

\*RPS interface: Requires RPS-2300 chassis. As of May 31, 2023, RPS2300 has reached its end-of-sale. This means that RPS2300 is no longer available for purchase and there is no replacement product. Read the notice [here](#).

### Throughput and Capabilities

	<b>MS210-24</b>	<b>MS210-24P</b>	<b>MS210-48</b>	<b>MS210-48LP</b>	<b>MS210-48FP</b>
<b>PoE/PoE+ Capable</b>	-	Yes, 370W	-	Yes, 370W	Yes, 740W
<b>Layer 3 Routing</b>	Static Routing	Static Routing	Static Routing	Static Routing	Static Routing
<b>Switching Capacity</b>	128 Gbps	128 Gbps	176 Gbps	176 Gbps	176 Gbps
<b>Stacking Bandwidth</b>	80 Gbps	80 Gbps	80 Gbps	80 Gbps	80 Gbps

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## Physical

	<b>MS210-24</b>	<b>MS210-24P</b>	<b>MS210-48</b>	<b>MS210-48LP</b>	<b>MS210-48FP</b>
<b>Mount Type</b>	1U Rack Mount	1U Rack Mount	1U Rack Mount	1U Rack Mount	1U Rack Mount
<b>Dimensions (h x w x d)</b>	1.72 x 19 x 9.05in (4.38 x 48.46 x 23cm)	1.72 x 19 x 9.05in (4.38 x 48.46 x 23cm)	1.72 x 19 x 13.38in (4.38 x 48.46 x 34cm)	1.72 x 19 x 13.38in (4.38 x 48.46 x 34cm)	1.72 x 19 x 13.38in (4.38 x 48.46 x 34cm)
<b>Weight</b>	6.03 lb (2.73 kg)	8.18 lb (3.71 kg)	8.78 lb (3.98 kg)	9.63 lb (4.37 kg)	9.63 lb (4.37 kg)
<b>Power Consumption</b>	15 - 882W	15 - 882W	15 - 882W	15 - 882W	15 - 882W
<b>Power Load (idle/ max)</b>	15 / 24 W	21 / 448 W	25 / 42 W	53 / 490 W	54 / 882 W
<b>Operating Temperature</b>	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C	23 °F - 122 °F -5°C - 50°C
<b>Humidity</b>	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%

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## Troubleshooting

The MS uses LEDs to inform the user of the device's status. When the device powers on, all the Internet LEDs flash twice. Additional functions are described below, from left to right.

### Front Panel Components

<b>Function</b>	<b>LED Status</b>	<b>Meaning</b>
<b>Power</b>	Solid orange	Switch is unable to connect to the Meraki cloud
	Flashing white	Firmware upgrade in process

	Solid white	Switch is fully operational and connected to the Meraki cloud
	Off	Switch does not have power
<b>Restore</b>	N/A	Restore button to clear switch IP and local configuration settings
<b>Switch Ports</b>	Off	No link is detected on this port
	Solid orange	10/100 Mbps
	Solid green	1 Gbps

In addition, there is a RESTORE button available on the front panel.

Insert a paperclip if a restore is required.

- A brief, momentary press: To delete a downloaded configuration and reboot.
- Press and hold for more than 10 sec: To force the unit into a full factory restore.

## Back Panel Components

Function	LED Status	Meaning
<b>Management Interface</b>	Green	Connected, used for easy access to the local status page
<b>Stack Ports</b>	Green	QSFP stacking cable is connected
	Off	No link is detected on this port
<b>22-Pin Redundant Power Supply Connector</b>	N/A	RPS2300 can be connected to provide redundant power

Power cords may be ordered separately.

Equipment is to be used only in a restricted access location and installed/operated only by trained service personnel.

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## Common Troubleshooting

### **My device is connected to the network but not checking in to the Meraki cloud or shows a solid Orange LED.**

Confirm that the device is powered on and has a valid IP address that is able to access the Internet. Use the Local Status Page to get more information about the connectivity status of the device such as if it can successfully reach the Local Gateway, Internet, and/or Meraki Cloud servers. If necessary, contact Meraki Support for additional assistance.

### **My Status LED is blinking WHITE**

A blinking WHITE Status LED indicates that the device is in contact with the Dashboard Cloud servers and is performing a firmware update. This can sometimes take 20-45 minutes or more to complete depending on hardware and other factors.

### **My Status LED is blinking ORANGE**

The device is not able to successfully communicate with the Dashboard Cloud servers or there may be a hardware issue with the device. Check the Local Status Page of the device to confirm the status and reach out to Meraki Support for further troubleshooting.

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## Event Log

The most common Event Log messages and their meaning are listed below.

### **Port STP change**

Indicates the STP state of the port has changed, lists the relevant port number, previous, and new states. Typically accompanied by a 'Port status change' event.

### **Port status change**

Indicates the link state of the port has changed, lists the relevant port number, old, and new state. Always accompanied by a 'Port STP change' event.

### **SFP module inserted/removed**

Indicates that an SFP module was either inserted or removed, includes SFP module information for inserted events and always lists the relevant port number.

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## Common Stacking Alerts

View our dedicated [Switch Stacking document](#) for more detailed information about configuring a Switch Stack and common issues.

Ensure all stack members are configured on dashboard, online and connected via their stacking ports.

**Note:** If connected and configured correctly, the alert will disappear within up to 1 hour. If the error persists, please contact Cisco Meraki Technical Support for further troubleshooting.

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### This switch's current stack members differ from the dashboard configuration/ Misconfigured Switch.

**This switch's current stack members  
differ from the dashboard configuration.**



**Misconfigured switch.**

This can occur in the following scenarios:

- Stack members are configured on dashboard, but not all members are connected via their stacking ports.
- A stack member has failed or is powered off.

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### This switch is not connected to a stack/Switch not connected to stack.

**This switch is not connected to a  
stack.**



**Switch not connected to  
stack.**

This can occur in the following scenarios:

- The switch is configured on dashboard as a stack member, but is not connected to a stack.

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This switch does not have a stack configuration/Unconfigured Switch.

**This switch does not have a stack configuration.**



**Unconfigured switch.**

This can occur in the following scenarios:

- The switch is physically connected as a stack, but not configured on dashboard as a stack member.