MS120 Overview and Specifications

Overview

Cisco Meraki MS120 switches provide Layer 2 access switching, ideal for branch and campus deployments. The MS120 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 power over a variety of port densities, including SFP capable uplinks, the MS120 line is fully ready to support future wireless infrastructure deployments across a variety of different environments.

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
- 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

Configuration

The basic initial configuration of the MS120 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. Manage local VLANs / Port configuration

Context and Comparisons

	MS120-8FP	MS120-24P	MS120-48FP
1GbE RJ45	8	24	48
1GbE SFP	2	4	4
Dedicated Mgmt Interface	-	1	1
Max Switching Capacity	20 Gbps	56 Gbps	104 Gbps
PoE/PoE+ Capable	Yes, 124W	Yes, 370W	Yes, 740W

Technical Breakdown

Hardware Breakdown

MS120-8 Models

	MS120-8	MS120-8LP	MS120-8FP
1GbE RJ45	8	8	8

1GbE SFP	2	2	2
Dedicated Mgmt Interface	-	-	-

MS120-24/48 Models

	MS120-24	MS120-24P	MS120-48	MS120-48LP	MS120-48FP
1GbE RJ45	24	24	48	48	48
1GbE SFP	4	4	4	4	4
Dedicated Mgmt Interface	1	1	1	1	1

Throughput and Capabilities

MS120-8 Models

	MS120-8	MS120-8LP	MS120-8FP
PoE/PoE+ Capable	-	Yes, 67W	Yes, 124W
Switching Capacity	20 Gbps	20 Gbps	20 Gbps
Power Supply	External	External	Fixed Internal

MS120-24/48 Models

	MS120-24	MS120-24P	MS120-48	MS120-48LP	MS120-48FP
PoE/PoE+ Capable	-	Yes, 370W	-	Yes, 370W	Yes, 740W
Switching Capacity	56 Gbps	56 Gbps	104 Gbps	104 Gbps	104 Gbps
Power Supply	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal

Physical

MS120-8 Models

	MS120-8	MS120-8LP	MS120-8FP

Mount Type	-	-	1U Rack Mount
Dimensions (h x w x d)	1.1 x 8.74 x 6 in (2.8 x 22 x 15cm)	1.1 x 8.74 x 6 in (2.8 x 22 x 15cm)	1.75 x 9 x 8.58 in (4.4 x 23 x 23cm)
Weight	2.36 lb (1.07 kg)	2.76 lb (1.25 kg)	3.42 lb (1.55 kg)
Power Consumption	5 - 161W	5 - 161W	5 - 161W
Power Load (idle/max)	5 / 9 W	7 / 88 W	9 / 161 W
Operating Temperature	32°F - 113 °F 0°C - 45°C	32°F - 113 °F 0°C - 45°C	32°F - 113 °F 0°C - 45°C
Humidity	5% to 95%	5% to 95%	5% to 95%

MS120-24/48 Models

	MS120-24	**MS120-24P**	**MS120-48**	**MS120-48LP**	**MS120-48FP**
Mount Type	1U Rack Mount	1U Rack Mount	1U Rack Mount	1U Rack Mount	1U Rack Mount
Dimensions (h x w x d)	1.73 x 17.32 x 10 in (4.4 x 44 x 25cm)	1.73 x 17.32 x 10 in (4.4 x 44 x 25cm)	1.73 x 17.32 x 10 in (4.4 x 44 x 25cm)	1.73 x 17.32 x 13.4 in (4.4 x 44 x 34cm)	1.73 x 17.32 x 13.4 in (4.4 x 44 x 34cm)
Weight	8.09 lb (3.67 kg)	9.26 lb (4.20 kg)	8.97 lb (4.06 kg)	12.70 lb (5.70 kg)	12.70 lb (5.70 kg)
Power Consumption	8 - 908W	8 - 908W	8 - 908W	8 - 908W	8 - 908W
Power Load (idle/max)	8 / 18 W	28 / 425 W	16 / 36 W	37 / 477 W	37 / 908 W
Operating Temperature	32°F - 113 °F 0°C - 45°C	32°F - 113 °F 0°C - 45°C	32°F - 113 °F 0°C - 45°C	32°F - 113 °F 0°C - 45°C	32°F - 113 °F 0°C - 45°C
Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%

Troubleshooting

The MS uses LEDs to inform the user of the device's status. Functions are described below, from left to right.

Function	**LED Status**	**Meaning**
Power	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
Restore	N/A	Reset button to clear switch IP and local configuration settings
Switch Ports	Off	No link is detected on this port
	Flashing orange (RJ45 ports only)	Activity indicator
	Solid green	1 Gbps link detected
Management Interface	Green	Connected, used for easy access to the local status page

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

Insert a paperclip if a reset 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 reset.

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

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.

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.