MS130 Datasheet

Overview

Cisco Meraki MS130 switches provide Layer 2 access switching, ideal for branch and campus deployments. The MS130 series features a variety of options designed to meet the diverse needs of branch and campus deployments.

With 10 different models, capable of providing up to 740W of power over a variety of port densities, including SFP+ capable uplinks, the MS130 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
- 2.5GbE RJ45
- 4x 10 Gbe SFP+ models available
- PoE+ for device level powering

Configuration

The basic initial configuration of the MS130 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 or SFP/SFP+ 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

Technical Breakdown

Hardware Breakdown

MS130 Models

	MS130-8	MS130-8P	MS130-8X	MS130-12X
1Gbe RJ45	8	8	6	8
mGbe RJ45	-	-	2 x 2.5G	4 x 2.5G
1 Gbe SFP	2	2	-	-
10GbE SFP+	-	-	2	2
Dedicated Mgmt Interface	-	-	-	-
PoE/PoE+ Capable	-	120W	120W	240W
Power Input	12VDC, 2.5A	54VDC, 2.78A	54VDC, 2.78A	54VDC, 5.56A
Power Load (idle/max)	8W/8W	8W/128W	16W/136W	19W/260W

Power Consumption	8 - 808W	8 - 808W	8 - 808W	8 - 808W
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
Storage and Transportation Temperature	-4°F - 158 °F -20°C - 70°C	-4°F - 158 °F -20°C - 70°C	-4°F - 158 °F -20°C - 70°C	-4°F - 158 °F -20°C - 70°C
Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Mounting	Desktop Integrated Wall mount	Desktop Integrated Wall mount	Desktop Integrated Wall mount	Desktop Integrated Wall mount
Switching Capacity	20Gbps	20Gbps	62Gbps	76Gbps
Power Supply	External	External	External	External
Fan Operation	Fanless	Fanless	Fixed Internal	Fixed Internal
Dimensions (h x w x d)	1.1 x 8.74 x 6in (2.8 x 22.2 x 15cm)	1.1 x 8.74 x 6in (2.8 x 22.2 x 15cm)	1.75 x 9 x 8.58in (4.4 x 23 x 23cm)	1.75 x 9 x 8.58in (4.4 x 23 x 23cm)
Weight	1.94 lb (0.88 kg)	1.94 lb (0.88 kg)	2.12 lb (0.96 kg)	2.34 lb (1.06 kg)

	MS130-24	MS130-24P	MS130-24X	MS130-48	MS130-48P	MS130-48X
1Gbe RJ45	24	24	18	48	48	40
mGbe RJ45	-	-	6 x 2.5G	-	-	8 x 2.5G
1Gbe SFP	4	4	-	4	4	-
10Gbe SFP+	-	-	4	-	-	4
Dedicated Mgmt Interface	1	1	1	1	1	1
PoE/PoE+ Capable	-	370W	370W	-	740W	740W
Power Input	100-240V~, 1.5-0.85A, 50-60Hz	100-240V~, 8A-4A, 50-60Hz	100-240V~, 8A-4A, 50-60Hz	100-240V~, 1.5-0.85A, 50-60Hz	100-240V~, 12-6A, 50-60Hz	100-240V~, 12-6A, 50-60Hz
Power Load (idle/max)	15W/15W	32W/406W	50W/421W	28W/28W	49W/803W	60W/808W
Power Consumption	8 - 808W	8 - 808W	8 - 808W	8 - 808W	8 - 808W	8 - 808W
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	32°F - 113 °F 0°C - 45°C
Storage and	-4°F - 158 °F	-4°F - 158 °F	-4°F - 158 °F	-4°F - 158 °F	-4°F - 158 °F	-4°F - 158 °F

Transportation Temperature	-20°C - 70°C	-20°C - 70°C	-20°C - 70°C	-20°C - 70°C	-20°C - 70°C	-20°C - 70°C
Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Mounting	Integrated 1U Rack Mount	Integrated 1U Rack Mount	Integrated 1U Rack Mount	Integrated 1U Rack Mount	Integrated 1U Rack Mount	Integrated 1U Rack Mount
Switching Capacity	128Gbps	128Gbps	146Gbps	104Gbps	104Gbps	200Gbps
Power Supply	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal
Fan Operation	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal	Fixed Internal
Dimensions	1.73 x 17.32 x 10in (4.4 x 44 x 25cm)	1.73 x 17.32 x 10in (4.4 x 44 x 25cm)	1.73 x 17.32 x 10in (4.4 x 44 x 25cm)	1.73 x 17.32 x 10in (4.4 x 44 x 25cm)	1.73 x 17.32 x 13.4in (4.4 x 44 x 34cm)	1.73 x 17.32 x 13.4in (4.4 x 44 x 34cm)
Weight	7.19 lb (3.26 kg)	8.91 lb (4.04 kg)	9.37 lb (4.25 kg)	8.14 lb (3.69 kg)	12.13 lb (5.5 kg)	12.59 lb (5.71 kg)

Whats In the Box

Model	Included
MS130-8, 8P, 8X, 12X	MS130 switch, AC Power Supply
MS130-24, 24P. 24X, 48, 48P, 48X	MS130 switch

Region-specific power cords are not included in the box*. Order the appropriate power cord separately:

- MA-PWR-CORD-US
- MA-PWR-CORD-EU
- MA-PWR-CORD-UK
- MA-PWR-CORD-CN
- MA-PWR-CORD-IN
- MA-PWR-CORD-BR
- MA-PWR-CORD-TW
- MA-PWR-CORD-AU
- MA-PWR-CORD-AR

ⓘ *1 MA-PWR-CORD-US is included automatically with US orders only*

Rack-mount screws are not included in the box, but can be ordered separately. Meraki recommends sourcing rack-mount screws and nuts made for your specific rack.

Accessories

SFP Modules

The following SFP/Fiber transceivers are supported

SFP Models	Supported Modules
• MS130-8, 8P	• MA-SFP-1GB-SX
• MS130-24, 24P	• MA-SFP-1GB-LX10
• MS130-48, 48P	• MA-SFP-1GB-TX

SFP+ Models	Supported Modules
	• MA-SFP-1GB-SX
• MS130-8X	• MA-SFP-1GB-LX10
• MS130-12X	• MA-SFP-1GB-TX
• MS130-24X	• MA-SFP-10GB-SR
• MS130-48X	• MA-SFP-10GB-LR
	• MA-SFP-10GB-ER

ⓘ * For more information regarding the SFP modules, see the following Cisco Meraki datasheets:

- SFP and Stacking Accessories

Troubleshooting

The MS uses LEDs to inform the user of the device's status. Functions are described below, from left to right. For fixed Ethernet ports, the status LED is on the top left or bottom right depending on port orientation. There is also a traffic LED which flashes orange as traffic is sent/received through that port.

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

Switch Ports	Off	Port is operating at less than full speed. For example: • 10/100M on a 1GE port • 100M/1GE on 2.5GE ports • 1G on SFP+ ports
	Solid green	Port is operating at full speed • 1GE on 1GE ports • 2.5GE on 2.5GE ports • 10GE on SFP+

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.