

# MERAKI MS120-8 COMPACT SWITCHES

Layer 2 Access Switches  
1G SFP Uplinks  
Small Form Factor  
Optional PoE+



## Product Highlights

(8) x 1GbE ports provide Gigabit access switching with optional PoE/PoE+ on select models

- All models feature 2 x 1G SFP uplink interfaces
- 67/124 watt PoE budget with PoE+ support and dynamic power allocation for powering access points, phones, cameras, and other PoE-enabled devices

- CablesAndKits Lifetime Advanced Replacement Warranty included at no additional cost
- Unify data, voice, & video with 6 configurable QoS queues
- 20 Gbps non-blocking compact switch
- Sleek, fanless design

## CLOUD MANAGED COMPACT ACCESS SWITCHES

Cisco Meraki MS120-8 switches are an excellent choice for those looking for Layer 2 access in a compact form factor. These fanless switches feature 1G SFP uplinks, integrated mounting brackets, and a Kensington security slot.

All Cisco Meraki switches are built from the ground up with a specific focus on cloud management. They strike the perfect balance of enabling cloud management without compromising any of the power or flexibility of traditional networking.

Cisco Meraki switches are managed through the user-friendly, intuitive cloud interface known as the Meraki Dashboard. No need for a cryptic command line.

These switches are simple to bring up as all users need to do is plug it in. There is no required CLI for switch configuration or port management.

The beauty of Meraki's centralized management platform is that it gives administrators granular visibility into their network. This helps users keep track of every configuration change in the network with detailed event and change logs.



## INDUSTRY-LEADING CLOUD MANAGEMENT

The benefits of cloud management are far-reaching and make it easier to create both large and small networks. Benefits include:

- Automatic email alerts from power loss, downtime, excessive Layer 1 errors, or configuration changes
- Powerful remote diagnostic tools such as packet capture to help isolate and troubleshoot network issues
- Role-based administration
- Firmware upgrades and enhancements from the Meraki cloud
- Virtual Stacking enables switch port configuration changes on the dashboard interface without the need to physically stack switches
- Incredible network transparency with application, operating system, client, and hostname visibility
- Zero-touch provisioning for rapid deployment across sites

# Features & Capabilities

Meraki switches include all of the traditional Ethernet features found in modern enterprise access switches, including:

## Branch & Campus Access

- PoE and PoE+ models available for device level powering
- Quality-of-Service (QoS) to prioritize mission critical traffic such as voice and video
- Voice VLAN support for simplified VoIP deployments
- CDP/LLDP with detailed neighbor discovery and visibility
- Port Mirroring support for monitoring network traffic at line rate
- IGMP Snooping to optimize network performance for multicast applications
- Link Aggregation Control Protocol (LACP) for high-capacity trunking

## Network Security

- IEEE 802.1X, MAB, and Hybrid authentication support for wired access control with RADIUS server monitoring
- ACL support (IPv4 & IPv6) and MAC whitelisting
- Single-Host/Multi-Domain/Multi-Host/Multi Authentication
- Change of Authorization (CoA) and RADIUS accounting support
- DHCP snooping to prevent users from adding unauthorized DHCP servers on the network
- Rapid spanning tree, BPDU guard, root guard, loop guard, UDLD and other safeguards to help prevent misconfigurations and reduce convergence time
- Per-port VLAN configuration
- Multiple administrative roles with sophisticated security policy management

## Network Troubleshooting & Automation

- Virtual Stacking helps IT admins make configuration changes to hundreds of switch ports in seconds with our intuitive dashboard interface
- Configuration templates for rapid, zero-touch provisioning and auditing of all sites
- Network Topology for automatic and interactive network mapping
- Remote cable testing, packet capture and client discovery
- Automatic and scheduled firmware upgrades for the complete network



# Features & Capabilities

## Rapid Deployment & Configuration

With Meraki's secure cloud architecture, device provisioning and orchestration becomes completely streamlined. Zero-touch configuration coupled with configuration templates let administrators define a switch configuration once and then bind thousands of switches to a profile, reducing overhead and increasing network security.

## Application Layer Visibility

Meraki switches include integrated Layer 7 fingerprinting without the need to purchase additional modules or services. Identify hundreds of applications from business apps to BitTorrent and YouTube.

User fingerprinting allows administrators to quickly identify individual users by device and tune network resources for optimum performance.

## Unified Software Architecture

Meraki switches run the same operating system used by all of our products, which allows us to deliver a consistent user experience for network management.

When connected, new MS120 switches automatically reach out to the Meraki cloud and download the most current configuration. Future updates can be user-scheduled, ensuring the network is kept up-to-date with bug fixes, security updates, and new features.

## Simplified Management & Operations

Meraki's cloud-managed architecture makes it simpler than ever to quickly provision and reconfigure switch ports with security, QoS, and other parameters. The Meraki dashboard provides unified policies, event logs, and monitoring, which make it easy to manage and grow scale network deployments.

By providing a complete, powerful set of management functions over the cloud, Meraki cloud-based management eliminates the need for proprietary command line configuration interfaces which require expensive and time-consuming certifications. Meraki MS switches can be fully deployed and provisioned in minutes, without requiring any local configuration or staging. Additional or replacement switches can be sent to remote offices and installed by non-technical staff, saving thousands of dollars in time and travel expenses.

The Meraki MS family also includes several remote diagnostic features, from network connectivity and cable integrity tests to latency measurement tools. For deep client troubleshooting, administrators can even perform per-port remote pcap packet captures without any additional probes or hardware on-site.



# Designed for Reliability & Environmental Efficiency

The Meraki switch family was designed for reliable operation in network closets, which are prone to high temperatures and limited ventilation. By minimizing total component count and only using proven switching silicon, Meraki is able to deliver highly reliable products with exceptional mean time between failure (MTBF) ratings.

Each Meraki switch also operates with a split-plane architecture, where silicon-based switching and data forwarding are separated from software-based control and management. By decoupling the underlying switching logic from control, each unit is able to deliver wire-speed switching even when advanced software features such as Layer 7 host and OS fingerprinting are enabled.

Finally, the highly integrated designs of Meraki switches result in power and cooling savings in large deployment environments of 30- 60% when compared with similar managed Gigabit switches.

## Distributed Branches & Remote Sites

Meraki's cloud-based system makes it easy to manage a single switch, or thousands of distributed switches, from a single interface.

- Troubleshoot problems remotely; e.g., find which port has a bad cable attached.
- Add or replace switches without having to send a technician onsite. Switches automatically download their current configuration as soon as they are connected to the network.
- Receive email alerts or SMS messages whenever there's a problem at a remote site

## Campus Edge

MS switches are ideal for small and large scale campus deployments, where reliability, scalability, and managability are top priorities.

- Virtual Stacking helps IT admins control port access policies, apply VLANs, toggle port power and more.
- SFP uplinks with link aggregation provide high speed connectivity to the core of the network.
- Receive alerts if any switch loses connectivity, before users complain.



# Dimensions & Interfaces

Model	Dimensions (HxWxD")	Weight	Interface	Switching Capacity
MS120-8-HW	1.1 x 8.74 x 5.91"	2.36 lbs	<ul style="list-style-type: none"> <li>• 8 x 10/100/1000BASE-T Ethernet RJ45 with auto negotiation and crossover detection (auto-MDIX crossover)</li> <li>• 2 x 1G SFP uplink</li> </ul>	20 Gbps
MS120-8LP-HW	1.1 x 8.74 x 5.91"	2.76 lbs	<ul style="list-style-type: none"> <li>• 8 x 10/100/1000BASE-T Ethernet RJ45 with auto negotiation and crossover detection (auto-MDIX crossover)</li> <li>• 2 x 1G SFP uplink</li> </ul>	20 Gbps
MS120-8FP-HW	1.1 x 8.74 x 8.58"	3.42 lbs	<ul style="list-style-type: none"> <li>• 8 x 10/100/1000BASE-T Ethernet RJ45 with auto negotiation and crossover detection (auto-MDIX crossover)</li> <li>• 2 x 1G SFP uplink</li> </ul>	20 Gbps

# Power Options & Specifications

Model	Idle/Full Power Load	Available PoE/PoE+ Power	Power Supply Configuration
MS120-8-HW	6 / 9 W	-	External Power Supply
MS120-8LP-HW	7 / 88 W	67 W	External Power Supply
MS120-8FP-HW	9 / 162 W	124 W	Fixed Internal

# MTBF Ratings (in hours)

Model	MTBF (at 25c)
MS120-8-HW	784,221
MS120-8LP-HW	502,221
MS120-8FP-HW	347,479

# MS120 Specifications

## Management

- Managed via the Web with the Meraki cloud management platform
  - Integrated with Meraki Wireless and complete portfolio of IT products and solutions
  - Zero-touch remote provisioning (no staging needed)
  - Detailed historical per-port and per-client usage statistics
  - DHCP, client, and hostname fingerprinting
  - SNMP and Syslog support for integration with other network management solutions
  - Automatic firmware upgrades with scheduling control
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## 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
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## Stacking

- Virtual Stacking supports thousands of switch ports in a single logical stack for unified management, monitoring, and configuration
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## Performance

- Switching capacity: 20Gbps
- Forwarding rate: 14.88mpps with standard packet size
- Jumbo frame (9578 byte Ethernet frame)
- Flow control support

## Ethernet Switching Capabilities

- 802.1p Quality of Service, 8 queues (w/ 6 configurable for DSCP-toCoS mapping)
  - 802.1Q VLAN and trunking support for up to 4,094 VLANs
  - 802.1w, 802.1D Rapid Spanning Tree Protocol (RSTP, STP)
  - 802.1ab Link Layer Discovery Protocol (LLDP) and Cisco Discovery Protocol (CDP)
  - 802.3ad Link aggregation with up to 8 ports per aggregate
  - Port mirroring
  - IGMP snooping for multicast filtering
  - MAC forwarding entries: 16K on 24-port models, 32K on 48-port models
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## Power

- Power input: 100 - 240 VAC, 47-63 Hz
  - Power consumption: 6-162 W
  - External power supply for MS120-8, MS120-8 LP
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## Mounting

- Wall or utility board mountable with included mount hardware
  - Kensington lock slot included
  - Desktop-mountable with included feet
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## Environment

- Operating temperature: 0 °C to 45 °C
- Humidity: 5 to 95% non-condensing
- Fanless operation

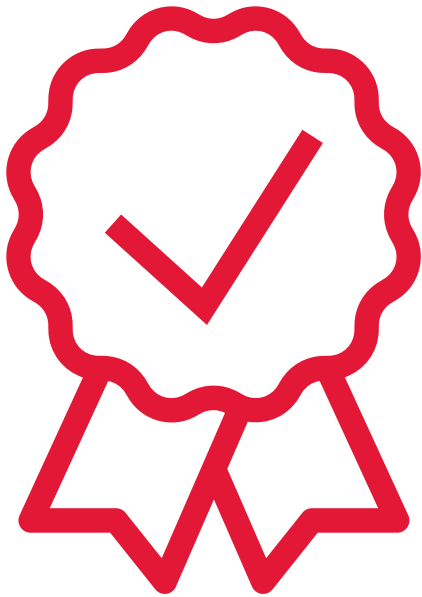
## Security

- 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 whitelisting
- DHCP snooping, detection and blocking
- IPv4 and IPv6 ACLs

## Regulatory

- CSA-US (US, Canada)
- FCC (USA)
- IC (Canada)
- CE (Europe)
- RCM (Australia/New Zealand)
- RoHS

# CablesAndKits Advanced Replacement Lifetime Warranty



Purchase with confidence knowing that your Meraki device comes with a Lifetime Advance Replacement Warranty at no additional cost. We understand that in the event of a product malfunction or failure long downtimes are not an option. If you experience a malfunction or failure with a product at any point during your ownership we'll ship a replacement the same day you report the issue. We'll even expedite the shipment if requested, with an effort to provide a delivery date and time that meets your needs. That's Awesome.