

Cisco Meraki MS250-48FP-HW

HARDWARE DATASHEET

CLOUD-MANAGED LAYER 3 STACKABLE 48-PORT SWITCH

The **Cisco Meraki MS250-48FP-HW** is designed for enterprise campus and branch deployments requiring robust Layer 3 routing capabilities, high-density Power over Ethernet (PoE+), and seamless physical stacking. Managed centrally through the intuitive Cisco Meraki Dashboard, it delivers high availability, zero-touch provisioning, and deep network visibility without physical console configuration.

48 Ports

1G GBE RJ45

740 Watts

FULL POE+ BUDGET

4× 10G

SFP+ UPLINKS

80 Gbps

STACK BANDWIDTH

HARDWARE ARCHITECTURE & KEY SPECIFICATIONS

Parameter	Specification Details
Interfaces	48 × 10/100/1000 Mbps RJ45, 4 × 10GbE SFP+ uplinks, 2 × Stacking ports
PoE / PoE+ Capability	802.3af (PoE) and 802.3at (PoE+) up to 30W per port (740W total budget)
Switching Capacity	176 Gbps non-blocking switch fabric
Forwarding Rate	127.98 Mpps (Million Packets Per Second)
Physical Stacking	Dedicated 80 Gbps stacking hardware (Up to 8 units in a stack)
Form Factor	1U Rack-mountable (19-inch rack mount hardware included)
Power Supply	Dual hot-swappable power supply support (1× 1025W AC PSU included)

LAYER 3 & NETWORKING FEATURES

- Dynamic & Static Routing:** Supports OSPFv2, static routing, and inter-VLAN routing for scalable enterprise network architectures.
- DHCP Services:** Built-in DHCP Server, DHCP Relay, and DHCP option support with failover capability.
- High Availability:** Warm Spare redundancy (VRRP) and physical stacking ensure maximum network uptime and failover protection.
- Quality of Service (QoS):** 802.1p class of service priority queues, DSCP mapping, and voice VLAN configuration for prioritized traffic flow.

ENTERPRISE SECURITY & ACCESS CONTROLS

- **Port Security & Authentication:** IEEE 802.1X, MAC Authentication Bypass (MAB), and Hybrid Authentication with RADIUS accounting.
- **Network Protection:** Dynamic ARP Inspection (DAI), DHCP Snooping, BPDU Guard, and Root Guard prevent malicious network intrusions.
- **Access Control Lists (ACLs):** Granular IPv4 and IPv6 ACLs for inbound policy enforcement.

PHYSICAL & ENVIRONMENTAL SPECIFICATIONS

Feature	Specification
Dimensions (H × W × D)	1.72" × 19.08" × 20.42" (4.38 cm × 48.46 cm × 51.87 cm)
Weight	12.83 lbs (5.82 kg)
Power Consumption	Idle: 25W Max (with 740W PoE load): 874W
Operating Temperature	-5°C to 50°C (23°F to 122°F)
Humidity	5% to 95% non-condensing

ACCESSORIES & COMPATIBLE OPTICS

Power Supplies & Cables:

- **MA-PWR-1025WAC:** Meraki 1025W AC Power Supply (Primary / Redundant)
- **MA-CBL-40G-50CM:** 50cm Stacking Cable
- **MA-CBL-40G-1M:** 1m Stacking Cable
- **MA-CBL-40G-3M:** 3m Stacking Cable

SFP / SFP+ Transceivers:

- **MA-SFP-10GB-SR:** 10Gbase-SR SFP+ Transceiver (Multimode)
- **MA-SFP-10GB-LR:** 10Gbase-LR SFP+ Transceiver (Single-mode)
- **MA-SFP-1GB-SX:** 1GbE SX SFP Transceiver
- **MA-SFP-1GB-TX:** 1GbE RJ45 Copper SFP Transceiver

CLOUD MANAGEMENT HIGHLIGHTS

The Meraki Dashboard provides intuitive centralized visibility, remote live troubleshooting tools (packet captures, cable testing, ping tests), and enterprise-wide firmware updates. Zero-touch deployment enables quick provisioning without on-site technical expertise.