

Cisco Catalyst Micro Switches

Q What are the Cisco Catalyst Micro Switches?

A The Cisco® Catalyst® Micro Switches are Cisco's purpose-built product family for Fiber To The x (FTTx) deployments, allowing customers to eliminate Intermediate Distribution Frames (IDF), save precious real estate, conserve energy, and cut cabling costs.

Q What pluggable transceiver modules do the Catalyst Micro Switches support?

A Please refer to the Cisco Transceiver Module Compatibility Matrixes at <https://tmgmatrix.cisco.com/> for a complete list of supported modules.

Q What input voltage do the Catalyst Micro Switches require?

A Please refer to the data sheet for detailed voltage and frequency ratings.

Parameter	Minimum	Nominal	Maximum
Voltage range	85V AC	100V, 120V, 240V AC	264V AC
Line frequency	47 Hz	50/60 Hz	63 Hz

Q What are the flash and DRAM sizes on the Micro Switches?

A The DRAM is 512 MB and flash is 256 MB on all variants of the Catalyst Micro Switches.

Q Do the Catalyst Micro Switches support line rate?

A Yes, the Catalyst Micro Switches support line rate.

Q What software do the Catalyst Micro Switches support?

A The Catalyst Micro Switches support classic Cisco IOS® Software. For image details, please check Cisco.com.

Q What Layer 3 functionality do the Catalyst Micro switches support?

A The Catalyst Micro Switches are pure Layer 2 switches with no Layer 3 functionality support.

Q What switch models are available?

A For a list of models available, please refer to Table 2 of the data sheet.

Switch mounting

Q What mounting options are available with the Catalyst Micro Switches?

A The CMICR-4PS and CMICR-4PC models are wall-jack switches:

- **Direct mount:** Wall-jack switches can be mounted directly into cable ducts compatible with the M45 standard without any mounting accessories
- **Duct and conduit mount:** Wall-jack switches can be mounted into cable ducts and conduits through a series of brackets and cover bezels
- **DIN rail mount:** Wall-jack switches can be mounted onto DIN rails with a DIN rail clip

The CMICR-4PT model is a desktop switch:

- **Surface mount:** The desktop switch can be mounted onto flat surfaces with the mounting bracket

Q Can I reuse my installation accessories from a competing product?

A Yes, the Catalyst Micro Switches conform to the M45 standard and are mechanically compatible with competing products conforming to the same standard. We do recommend using new mounting bezels orderable with the switch for aesthetic reasons.

Reuse of competing power supplies is also permitted through the adapter CMICR-PWR-CNT=. The reused power supply needs to be capable of supplying at least 65W at 53V DC, and special attention must be paid to configure the switch to accept the lower power rating. For more details, please refer to the configuration guide.

Q What are the recommended mounting orientations?

A We recommend the following mounting orientations for the micro switches:

Wall-jack switches (CMICR-4PS, CMICR-4PC):

- Upright
- Vertical

Desktop switch (CMICR-4PT):

- Upright
- Vertical
- Inverted mounting (under a desk) is permitted but will limit the operating temperature to 35°C (95°F).

Hardware

Q What is the purpose of the Mode button on the switch?

A The Mode button is used for resetting the switch, entering day-zero setup mode, or changing an LED mode.

Q Do the switches have a front-panel Out-Of-Band (OOB) Ethernet management interface?

A No, the switches do not support the OOB Ethernet management interface.

Q What can I do with the USB Type A port located on the front of the Catalyst Micro Switches?

A As additional storage, the USB Type A port can be used to perform software upgrades, store configurations, and write memory core dumps for troubleshooting purposes. The switches support up to 8-GB Cisco flash drives.

Q What can I do with the micro-SD card slot?

A The micro-SD card slot can be used to install or upgrade firmware images on the micro switches. They can be disabled through configuration to prevent potential misuse and vandalism.

Q Can a third-party USB flash drive be used with the Catalyst Micro Switches?

A No, third-party USB drives are not supported.

Power and PoE

Q Do the Catalyst Micro Switches support field-replaceable power supplies?

A Yes, all Catalyst Micro Switches feature external power supplies that can easily be replaced in the field.

Q Do the Catalyst Micro Switches support Power over Ethernet (PoE)?

A Yes, the Catalyst Micro Switches support PoE+ on all downlink ports. For more information on the PoE budget available on different models, refer to Table 2 in the data sheet.

Q What is the maximum power that can be drawn from a port on a PoE switch?

A A maximum of 30W can be supported on a single port.

Q What power management features do the Catalyst Micro Switches support?

A The Catalyst Micro Switches support IEEE 802.3az Energy Efficient Ethernet (EEE).

Q Can the Catalyst Micro Switches be powered using a Redundant Power Supply (RPS) or the Cisco Expandable Power System (XPS)?

A No, the Catalyst Micro Switches do not support RPS or XPS.

Q Can we increase the PoE budget of a Catalyst Micro Switch?

A No. The PoE budget of a given model is fixed and cannot be increased.

Management, security, and configuration

Management

Q Do the Catalyst Micro Switches support the Network Plug and Play (PnP) agent?

A Yes. PnP technology automates the installation and configuration of Cisco IOS Software using an embedded PnP agent on Cisco Catalyst switches. It requires a preconfigured network PnP server that manages sites, site devices, and their images, configurations, files, and licenses for deployment.

Q Is Cisco Prime® Infrastructure supported on the Catalyst Micro Switches?

A Yes, Cisco Prime Infrastructure is supported on the micro switches.

Q Is Cisco DNA Center supported on the Catalyst Micro Switches?

A Yes, the Catalyst Micro Switches support Cisco DNA Center, which gives access to Base Automation (Software Image Management [SWIM], template-based provisioning, PnP), health monitoring, and Assurance capabilities.

Q Do the Catalyst Micro Switches support automatic baud rate detection on the console port?

A No, the Catalyst Micro Switches don't support automatic baud rate detection on the console port.

Q Are the Catalyst Micro Switches IPv6 ready?

A The Catalyst Micro Switches support certain IPv6 capabilities. Please refer to the data sheet for more details.

Q Is stacking supported on the Catalyst Micro Switches?

A No. Stacking is not supported on any of the models of the Catalyst Micro Switches.

QoS and security

Q How do the Catalyst Micro Switches help keep unauthorized users from accessing the network?

A The Catalyst Micro Switches provide superior Layer 2 threat defense capabilities for mitigating man-in-the-middle attacks (such as MAC, IP, and Address Resolution Protocol [ARP] spoofing). They also provide storm control protection and dynamic ARP inspection.

In addition, the switches support advanced security features such as protected port, port security, TACACS+, and RADIUS authentication.

Q What Cisco cyber threat defense security features do the Catalyst Micro Switches support?

A The Catalyst Micro Switches support threat defense features such as port security, Dynamic Host Configuration Protocol (DHCP) snooping, and dynamic ARP inspection.

Q Do the Catalyst Micro Switches support signed images?

A Yes. The Catalyst Micro Switches support only signed images, which prevents any tampering with the Cisco IOS Software image.

Q What are some of the key trustworthy technologies that the Catalyst Micro Switches support, and how do they protect the network?

A Key trustworthy technologies include image signing, Secure Boot, and the Cisco Trust Anchor module. Trustworthy technologies protect against counterfeit hardware and software modification.

Q Do the Catalyst Micro Switches support Quality of Service (QoS)?

A The Catalyst Micro Switches offer intelligent traffic management that keeps everything flowing smoothly. Flexible mechanisms for marking, classification, and scheduling deliver superior performance for data, voice, and video traffic, all at wire speed. Primary QoS features include:

- Up to four egress queues per port and strict priority queuing so that the highest-priority packets are serviced ahead of all other traffic
- Shaped Round Robin (SRR) scheduling and Weighted Tail Drop (WTD) congestion avoidance

Intelligent services

Q Do the Catalyst Micro Switches support the SD-Access architecture?

A Yes, the Catalyst Micro Switches support the SD-Access architecture as an SD-Access extended node.

Configuration

Q What feature sets do the Catalyst Micro Switches support?

A The Catalyst Micro Switches support the LAN Lite feature set.

Q How do you configure and manage the Catalyst Micro Switches?

A The Catalyst Micro Switches can be configured and managed via the classic Cisco IOS Command-Line Interface (CLI) using the console port (micro USB port).

Q What is the Switch Database Management (SDM) template for the Catalyst Micro Switches?

A The Catalyst Micro Switches support a unique default template that cannot be modified.

The switches supports the following level of features:

- 64 Switch Virtual Interfaces (SVIs) and 64 Virtual LANs (VLANs)
- Number of IPv4 multicast groups: 1024
- Number of unicast MAC addresses: 15,000
- Number of IPv4/IPv6/MAC access control entries: 180

Q How do you configure and manage the Catalyst Micro Switches?

A The micro switches are managed through the micro USB console. However, Simple Network Management Protocol (SNMP) is supported, and Telnet/Secure Shell (SSH) can be used as well.