

Cisco Catalyst 1000 Series Switches

General



What are the Cisco® Catalyst® 1000 Series Switches?

A Cisco® Catalyst® 1000 Series Switches are fixed managed Layer 2 Gigabit ethernet switches that are simple, flexible, secure, enterprise-grade network switches built for small deployments, out-of-the-wiring-closet applications, and critical Internet of Things (IoT) deployments. They operate on Cisco IOS® Software and support simple device management and network management via a Command-Line Interface (CLI) as well as an on-box web UI. These switches offer advanced Layer 2 as well as Power over Ethernet Plus (PoE+) power. They deliver enhanced network security, network reliability, and operational efficiency.



What pluggable transceiver modules are supported by the Cisco Catalyst 1000 Series Switches?

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



What input voltage is required by the Cisco Catalyst 1000 Series Switches?

A The AC input voltage range is 100V to 240V. The AC frequency range is 50 to 60 Hz.



Do Cisco Catalyst 1000 Series Switches support single IP management?

A Yes, up to eight Catalyst 1000 Series switches can be managed together with single IP using the front-panel uplink (SFP/SFP+) ports.



What are the flash and DRAM sizes on the switches?

A All the switches have 256 MB flash and 512 MB DRAM.



Do the Cisco Catalyst 1000 Series Switches support line rate?

A Yes, all switches are nonblocking line-rate switches.



What is the software supported on the Cisco Catalyst 1000 Series Switches?

A The Cisco Catalyst 1000 Series switches support the classic Cisco IOS Software.



How do you configure and manage the Cisco Catalyst 1000 Series Switches?

A They can be configured and managed via the GUI or with the CLI using the console port (RJ-45 or USB Type B).

Q Do the Cisco Catalyst 1000 Series Switches support front-to-back airflow?

A The airflow on the Cisco Catalyst 1000 Series is “front and sides” to back.

Q Is the airflow reversible?

A No. The airflow is not reversible.

Q What is the software license level for the Cisco Catalyst 1000 Series?

A The 1000 Series switches come with a LAN Lite feature set through a right-to-use (RTU) license.

Q What Layer 3 functionality do the Cisco Catalyst 1000 switches support?

A These switches support static routing.

Q What is the Switch Database Management (SDM) template for the Cisco Catalyst 1000 Series Switches?

A Cisco Catalyst 1000 Series switches support unique default templates that cannot be modified.

The switches support the following level of features for 1 Switch Virtual Interface (SVI) and 64 Virtual LANs (VLANs):

- Number of IPv4 multicast groups: 1024
- Number of unicast MAC addresses: 16,000
- Number of IPv4/IPv6/MAC access control entries: 600

Q What models are available?

A For list of models available, please refer to Table 1 on datasheet at <https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-1000-series-switches/nb-06-cat1k-ser-switch-ds-cte-en.html>.

Switch mounting

Q What mounting options are available with the Cisco Catalyst 1000 Series Switches?

A The switches are designed for easy and flexible mounting. They can be mounted vertically or horizontally, using one of the following options:

- 8- or 16-port SKUs:
 - Magnet mount (on a desk, wall, or shelf)
 - DIN rail mount
 - Rack mount (with rack mount kit)
- 24- or 48-port SKUs:
 - Rack mount (with rack mount kit)
 - Wall mount
 - On a desk or shelf

For more information about switch mounting options, see the Cisco Catalyst 1000 Series Switches Hardware Installation Guide.

Q What are the recommended switch orientations?

A The following are the recommended switch orientation options:

- 8- or 16-port SKUs:
 - Upright (on a table)
 - Inverted (under a desk)
 - Vertical (on a wall, ports facing down)
- 24- or 48-port SKUs:
 - Upright (in a rack)
 - Vertical (on a wall, ports facing down)

Q **What are the best practices for mounting the fanless switches in closets, under tables, or in other closed environments?**

A Be sure that the temperature around the unit does not exceed its maximum limit. Switches can operate at 122°F (50°C) for short time periods only. Best practices allow for at least 3 inches (7.6 cm) of clearance on all sides and ventilation openings and at least 1.75 inches (4 cm) of clearance above each switch if placed in a rack. Access to ports should be sufficient for unrestricted cabling. The rear-panel power connector should be within reach of an AC power receptacle. When wall-mounting the switch, have the switch align with ports facing down. For more information about best installation practices, see the Cisco Catalyst 1000 Series Switches Hardware Installation Guide.

Hardware

Q **Are all the Cisco Catalyst 1000 Series models fanless?**

A The below list highlights the models without fans

- 8 Port – All models are fanless
- 16 Port – All Models are fanless
- 24 Port – All models fanless except the full PoE Models (C1000-24FP-4G-L, C1000-24FP-4X-L, C1000SM-24FP-4G-L, C1000SM-24FP-4X-L)
- 48 Port – No Fanless models

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 Cisco Catalyst 1000 Series 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 **Can a third-party USB flash drive be used with the Cisco Catalyst 1000 Series Switches?**

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

Q **How does cooling work in the Cisco Catalyst 1000 Series Switches?**

A Because most of the PIDs of Catalyst 1000 Series switches do not have fans, they are cooled by natural convection. Except 24 port full PoE and 48 Port switches are cooled by a fan.

Q **What is the noise level on the Cisco Catalyst 1000 Series Switches?**

A The fanless models do not generate significant noise. For noise levels on SKUs with a fan, please refer to the data sheet at <https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-1000-series-switches/nb-06-cat1k-ser-switch-ds-cte-en.html>.

Management

Q **Do the Cisco Catalyst 1000 Series Switches support Bluetooth?**

A The Catalyst 1000 Series can be configured and managed over the air with Bluetooth. The switches support an external Bluetooth dongle that plugs into the USB port on the switch and allows a Bluetooth-based RF connection with an external laptop or tablet.

Laptops and tablets can now access the switch CLI using a Telnet or Secure Shell (SSH) Protocol client over Bluetooth. The GUI can be accessed over Bluetooth with a browser.

Q Do the Cisco Catalyst 1000 Series 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 What is the default baud rate of the serial port on the Cisco Catalyst 1000 Series Switches?

A The default baud rate is 9600 bps.

Q Can both console ports be used simultaneously?

A No. When the USB console is used, the RJ-45 console receives the output of the USB console as well. This design allows the administrator to see when the USB console port is in use. This capability is useful for remote administrators.

Q Does the switch support autobaud on the console port?

A No.

Power and PoE

Q Do Cisco Catalyst 1000 Series Switches support field-replaceable power supplies?

A No. Power supplies on all models are built into the switch (except models with external PS that can be replaced).

Q Can Cisco Catalyst 1000 Series Switches protect themselves against power spike damage?

A Yes. Catalyst 1000 Series switches have surge protection to protect against damages caused by random power spikes.

Q Do the Cisco Catalyst 1000 Series Switches support PoE?

A Yes, the Catalyst 1000 Series supports PoE. For more information on number of ports supporting PoE and the PoE budget available on different models, please refer to Table x in the datasheet at <https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-1000-series-switches/nb-06-cat1k-ser-switch-ds-cte-en.html>.

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 Cisco Catalyst 1000 Series Switches support?

A The Catalyst 1000 Series supports IEEE 802.3az Energy Efficient Ethernet (EEE) and Cisco EnergyWise®.

Q Can the Cisco Catalyst 1000 Series Switches be powered using a Redundant Power Supply (RPS) or the Cisco Expandable Power System (XPS)?

A No, the Catalyst 1000 Series switches do not support RPS or XPS.

Q Can we increase the PoE budget of a Cisco Catalyst 1000 Series Switch?

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

QoS and security

Q Do the Cisco Catalyst 1000 Series Switches support Quality of Service (QoS)?

A The Catalyst 1000 Series 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

Q What is the egress buffer size?

A The egress buffer is 1.5 MB on all Cisco Catalyst 1000 Series Switches.

Q How do the switches help keep unauthorized users from accessing the network?

A Cisco Catalyst 1000 Series 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.

These switches also support advanced security features such as protected port, port-based access control lists (ACLs), port security, TACACS+, and RADIUS authentication.

Q What Cisco cyber threat defense security features do the Cisco Catalyst 1000 Series Switches support?

A The Catalyst 1000 Series switches support threat defense features such as port security, Dynamic Host Configuration Protocol (DHCP) snooping, and dynamic ARP inspection.

Q How can I protect administration passwords and traffic going to the switch during configuration or troubleshooting?

A To protect administration traffic during the configuration or troubleshooting of a switch, the best approach is to encrypt the data using both SSH and Simple Network Management Protocol (SNMP) v3.

Q Do Cisco Catalyst 1000 Series Switches support signed images?

A Yes. Cisco Catalyst 1000 Series Switches support only signed images, which prevents any Cisco IOS Software image tampering.

Q What are some of the key trustworthy technologies that Cisco Catalyst 1000 Series 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.

Intelligent services

Q What is sFlow?

A The Cisco Catalyst 1000 Series Fully Managed switches support hardware-driven sampled flows. sFlow uses sampled flows to provide statistics for network traffic accounting, network monitoring, and network planning. A flow is created using a flow record, which defines the unique keys of the flow. NetFlow Lite provides valuable information about network users and applications, peak usage times, and traffic routing.

Q Is sFlow supported on all ports of the Cisco Catalyst 1000 Series?

A sFlow is natively supported on all downlink and uplink ports of the Cisco Catalyst 1000 Series.

Q Is sFlow supported on devices that are managed through a single IP?

A No, sFlow works only on a standalone switch.

Intelligent management

Q Do the Cisco Catalyst 1000 Series Switches support a web UI to perform a day-zero switch installation?

A Yes, the Catalyst 1000 Series supports a day-zero GUI called Cisco [Configuration Professional for Catalyst](#) to help with easy deployment of the switch without the need for a CLI. Some of the capabilities supported are listed below.

- Day-zero setup wizard
- Day-1 and day-2 provisioning
- Image upgrades
- Troubleshooting and diagnostics
- System monitoring and client view

Q Does support for the web UI require any additional files to be loaded on the Cisco Catalyst 1000 Series?

A No, the .tar Cisco IOS file contains all the files required for web UI support.

Q What browsers can be used for the web UI?

A You can use these browsers:

- IE version 8 or later
- Chrome
- Firefox
- Safari

Q Are SFP and SFP+ supported on the Cisco Catalyst 1000 Series?

A For information about supported SFP and SFP+ modules, refer to the Transceiver Compatibility matrix tables at [cisco.com/en/US/products/hw/modules/ps5455/products_device_support_tables_list.html](https://www.cisco.com/en/US/products/hw/modules/ps5455/products_device_support_tables_list.html).

Hardware and warranty

Q What is the hardware warranty and return policy on the Cisco Catalyst 1000 Series Switches?

A Cisco Catalyst 1000 Series switches come with an Enhanced Limited Lifetime Warranty (E-LLW). The E-LLW provides the same terms as Cisco's standard limited lifetime warranty but adds next-business-day delivery of replacement hardware, where available, and 90 days of 8x5 Cisco Technical Assistance Center (TAC) support.

Q What is the software update policy for the Cisco Catalyst 1000 Series Switches?

A Customers with Cisco Catalyst LAN Lite software feature sets devices will be provided with maintenance updates and bug fixes designed to maintain the compliance of the software with published specifications, release notes, and industry standards as long as the original end user continues to own or use the product or up to one year from the end-of-sale date for this product, whichever occurs earlier.