

Core Switch Gigabit Switch



AI Overview

A gigabit core switch is a high-performance network switch at the backbone of a network that provides 1 Gbps or higher speeds for aggregating and routing data efficiently across the LAN. Definition and Function A gigabit core switch combines the features of a gigabit Ethernet switch and a core switch. It operates at the core layer of a network, which is the backbone connecting all distribution and access layers, ensuring high-speed, reliable data transfer across the network. Unlike access switches that connect end devices, core switches handle large volumes of traffic and provide ultra-low latency and high throughput. Gigabit Ethernet Capabilities Gigabit switches support 1 Gbps (1,000 Mbps) per port, significantly faster than older Fast Ethernet switches (100 Mbps), and are essential for high-bandwidth applications like streaming, VoIP, video surveillance, and large-scale data transfers. They typically use 10/100/1000BASE-T Ethernet over copper cabling and can come in various port configurations, such as 8, 16, 24, or 48 ports. Core Switch Characteristics Core switches are usually Layer 3 switches, meaning they can perform routing functions in addition to switching. They are designed with high port density, redundancy, and robust management features to maintain network stability and performance. Features often include link aggregation, VLAN support, and Quality of Service (QoS) to prioritize critical traffic and prevent congestion. Deployment and Use Cases Gigabit core switches are deployed in enterprise networks, data centers, and large campus networks where hundreds or thousands of devices require fast, reliable connectivity. They aggregate traffic from distribution switches and provide a central point for routing and forwarding data efficiently. For smaller networks with fewer than 50 devices, a dedicated core switch may not be necessary, and a high-performance aggregation switch can suffice. Summary In essence, a gigabit core switch is the backbone switch in a hierarchical network that ensures high-speed, reliable, and sc...

Article Content

L3 Data Center Switch 48 Ports 1G/10G SFP+ & 6 Ports 40G QSFP

The HC48GXP6QP is a next-generation high-performance, high-density, low-latency 10 Gigabit Ethernet switch designed for data centers, high-end campus aggregation/access, and small to medium-sized

L2 SWITCHES

With the trend of high speed Ethernet, 10/40/100Gbps, Edgecore switches offer a complete set of advanced software features that will easily satisfy the demands of enterprises and SMBs everywhere.

All Switches Products

Cisco has a comprehensive portfolio of network switches and switching solutions for enterprise networks, data centers and small businesses. [Learn more.](#)

Understanding Core Switch: What It Is and How to

Typically, core switches are Layer 3 switches equipped with robust network management capabilities. They are characterized by numerous ports

Cisco Switch Selector

These entry-level, noiseless Gigabit Ethernet switches provide enterprise-class Layer 2 switching with basic security, quality of service (QoS), Power over

OmniSwitch 6860 Layer3 Multi-gigabit Switch | Alcatel

High-density, unified access Layer 3 switch with smart analytics to empower your next-generation enterprise networks using multi-gigabit switching technology.

Extreme Networks Core und Data Center Switching

Entdecken Sie leistungsstarke Core- und Data Center Switching-Lösungen von Extreme Networks. Maximieren Sie Ihre Netzwerkperformance und -sicherheit.

Best Ethernet Switches for Business (2025): Selection

Selecting the right Ethernet switch for your business network is critical to ensuring optimal performance, security, and scalability while avoiding costly

Ethernet Switches

With 10 or 40 Gigabit Ethernet access ports and a high throughput backbone, FortiSwitch Data Center Switches are ideal for top-of-rack server or firewall-aggregation applications. These high-speed

Managed Switches

Tackle complex networks with NETGEAR managed switches. Get PoE, SFP, and multi-gig support, plus cloud or local control. Shop now and power your business

Alta Labs S16-POE Cloud-Managed PoE+ Switch w/ 16 Gigabit

16-Port Gigabit PoE+ Managed Switch for Business & Enterprise - The Alta Labs S16-POE delivers 16 10/100/1000 Mbps Ethernet ports with 8 PoE+ (802.3at/af) enabled ports providing up to 30 W per

UniFi Switching

High-performance switches designed to scale and optimize performance of any network with a magical management experience.

Gigabit 26-port L2+ managed Ethernet switch

The ONV33026FM is a full gigabit L2+ managed Ethernet fiber switch independently developed by ONV. It has 24*10/100/1000Base-T adaptive RJ45 ports and

Stackable L3 Managed Switch Datasheet

Switch Product Features High-Speed and Flexible Connectivity The core/aggregation switches are equipped with 25 Gbps SFP28 slots and provide up to 820 Gbps switching capacity per

GigaCore switches

Luminex GigaCore switches are fully validated in real-world applications with major AV-industry brands for different protocols. All switches come pre-configured out

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48-Port 25G Layer 3 Core Switch SONiC Ready Marvell Falcon

48-port Layer 3 Core switch, 48x 25G multi-gigabit ports with 6 x 100Gb QSFP28/40Gb QSFP+ ports, enterprise SONiC distribution preloaded.

IP-COM Switch 6Port Gigabit 6xGE PoE 63W G2206P Cloud

G2206P-4-63W is a smart cloud-managed PoE switch independently designed by IP-COM. The switch provides 4 gigabit standard PoE ports with a maximum PoE power output of 58 W.

PLANET Technology 2025–2026 Switch Lineup: Six Models for Every

PLANET Technology continues to expand its managed switching portfolio with solutions that span the full spectrum of modern network requirements — from compact multi-gigabit PoE++

Core-Switches

Core-Switches kaufen & konfigurieren. Hochwertige Markenware & erstklassige persönliche Beratung. Bei uns im Servershop.

What is a gigabit switch?

Gigabit Ethernet switches are the foundation to most LANs today. Introduced in 1998 as part of the IEEE 802.3z Gigabit Ethernet standard, gigabit switches were

Fortinet FortiSwitch 248E-FPOE 48-Port Gigabit PoE+ Managed Switch

The Fortinet FortiSwitch 248E-FPOE 48-Port Gigabit PoE+ Managed Switch ships with core Layer 3 features out of the box, cleanly supporting Virtual Interfaces (up to 4,000 VLANs), Static Routing,

Gigabyte Gaming A16 Pro review: this restricted RTX

For the Gaming A16 Pro, Gigabyte includes a MUX switch but caps the GPU TGP for the 5080 at 115W.

S3410-24TS-P, 24-Port Gigabit Ethernet L2+ PoE+ Switch, 24 x PoE

OverviewThe S3410-24TS-P is a high-performance Layer 2+ Gigabit Ethernet switch designed for campus network environments. It features 24 ports of 10/100/1000BASE-T RJ45 with support for

EDGE-CORE ECS4650-54T QUICK START MANUAL Pdf Download

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Ubiquiti UniFi Switch Flex 2.5G 8 PoE Review: The

By combining multi-gigabit ports with a flexible power input design, the Flex 2.5G 8 PoE provides a versatile solution for environments that need

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