Huawei Core Switch Components



Overview

Huawei CloudEngine S16700 Series Flagship Core Switches Datasheetmodular core switches designed for high-end campus networks. They are designed to. secure.

Key Takeaways

Huawei core switches are modular devices composed of Main Processing Units (MPUs), Line Processing Units (LPUs), Fabric Units (SFUs), power modules, and fan modules, all designed with redundancy for high reliability.

Key Components

Main Processing Units (MPUs): The MPU is the central control module responsible for managing the switch's operations, routing protocols, and system intelligence. Huawei core switches, such as the S12700H and S16700 series, use redundant MPUs to ensure carrier-grade reliability and uninterrupted service in case of module failure. Line Processing Units (LPUs): LPUs handle the data forwarding and interface connectivity.

They provide ultra-high-density access ports, including GE, 10GE, 25GE, 40GE, 100GE, 200GE, and 400GE, depending on the model.

LP

Us are modular, allowing flexible expansion and adaptation to network growth. Fabric Units (SFUs): SFUs form the internal switching fabric, connecting MPUs and LPUs to provide high-speed data transfer across the switch. They enhance system bandwidth and support smooth network evolution, ensuring that the switch can handle large-scale traffic efficiently.

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Power Modules: Huawei core switches use modular power supplies with redundancy (1: 1 or N+1 configurations) to maintain continuous operation even if one module fails. This design supports high availability in enterprise and data center environments. Fan Modules: Cooling is critical for high-performance switches.

Redundant fan modules ensure proper airflow and thermal management, preventing overheating and maintaining stable operation under heavy workloads. Programmable Chips: Huawei core switches are equipped with fully programmable forwarding chips, allowing user-defined forwarding processes. This enables flexible service rollout without replacing hardware, protecting customer investments and supporting rapid deployment of new services.

Additional Features

Redundancy and Reliability: All key components (MPUs, LPUs, SFUs, power, and fans) are designed with redundancy to provide carrier-grade reliability.

High-

Density Ports: Core switches support a wide range of port types and densities, suitable for aggregation and core layers in enterprise and data center networks. Security and Management: Features include secure data access, MACsec, terminal identification, and support for advanced authentication methods. Scalability: Modular design allows easy expansion and compatibility with existing network cards, ensuring investment protection.

Huawei core switches, such as the CloudEngine S12700H, S16700, and CE12800 series, combine these components to deliver high-performance, scalable, and reliable solutions for enterprise campuses and data centers.

Article Content

Huawei CloudEngine S16700 Series Flagship Core Switches Datasheet

modular core switches designed for high-end campus networks. They are designed to. secure and trustworthy campus networks. end campus networks in the fully-wireless era. S16700 series switches

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Huawei CloudEngine S16700 Series Flagship Core Switches Datasheet

Key components, such as Main Processing Units (MPUs), power modules, and fan modules, adopt a redundancy design to provide carrier-class reliability. The switches are ideal aggregation and access

Huawei CloudEngine S8700 Core Switches | Modular

The Huawei CloudEngine S8700 Series sets a new standard for modular core switching—featuring up to 16Tbps throughput, full MACsec

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CLOUDENGINE S12700E SERIES SWITCHES PRODUCT

With this technology, a physical network with core/aggregation switches, access switches, and APs can be virtualized into one logical switch, offering the simplest network management solution.

Core Switches Huawei S7703 Switch

Below is a detailed breakdown of the four primary types of core switches and their relevance to modern networking, including how the Huawei S7703 fits into this ecosystem.

Campus Switches | Huawei Enterprise

Huawei campus switches offer high-performance, secure, and reliable switching for enterprises, governments, finance and manufacturing networks. Learn more.

Switches

Switches After more than 20 years of unremitting efforts and stable development, Huawei provides extensive experience in Ethernet switches. With multiple

IdeaHub Board 2 | Education Display | Huawei Enterprise

HUAWEI IdeaHub Board 2 education display integrates teaching hardware and a software ecosystem to provide a one-stop smart classroom solution. Discover it.

CloudEngine 12800 Series Data Center Core Switches

Product Overview The CloudEngine 12800 (CE12800) series switches are next-generation, high-performance core switches designed for data center networks and high-end campus networks. Using

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Huawei July 2026 News: OpenAN Launch & Level 4 Autonomous

The OpenAN project is an open-source initiative led by Huawei and global industry partners. Its core objective is to provide out-of-the-box open-source components that accelerate the

Configuring the Core Switch

Configuring the Core Switch Context In this scenario, IP addresses of the interfaces connecting the core switch to the BRASs and firewalls and OSPF need to be configured on the core

Huawei Ethernet Switches

Router-switch offers huawei CloudEngine, Campus and smb ethernet switches, provide high-availability, high-performance networking for large-scale data centers, ISPs, and enterprise IT networks.

CloudEngine S16700 Series Switches

CloudEngine S16700 series switches are flagship core switches with record-high performance designed for high-quality 10 Gbps campus networks. This series

Ethernet Switches

Ethernet Switches After more than 20 years of unremitting efforts and stable development, Huawei provides extensive experience in Ethernet switches. With multiple industry-leading intellectual

Enterprise Routers | Huawei Enterprise

Integrating routing, switching, security, 3G and LTE, and Wi-Fi functions, AR650 enterprise gateways are suitable for small enterprises and SOHO enterprises. They use a 4-core processor and a fan-free

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