Power Consumption of Aggregation Switch S10506



Overview

S10506 > Support hot swapping for all components. > Advanced CLOS multistage and H3C S10500X Series Multiservice Core SwitchIt can power on and off modules.

Key Takeaways

The H3C S10506 switch's power consumption varies by module configuration, fan speed, and operational load, with each card and fan tray contributing to the total power draw.

Modular Power Consumption

The S10506 uses a modular design, meaning the total power consumption depends on the installed components: Line cards: Each card has a static power consumption when idle (ports down, no transceivers) and a dynamic power consumption when all ports are active and transmitting traffic. The exact wattage varies by card model and interface type. Switch fabric modules: Required for full throughput, these modules also contribute to the overall power draw.

Service modules and MPU: These sections consume additional power depending on the installed modules and operational load.

Fan Tray Power

The S10506 is equipped with fan trays that adjust speed automatically based on heat dissipation. Power consumption of the fans depends on the speed setting: Low-speed operation consumes less power. High-speed operation increases power draw to maintain optimal cooling under heavy load.

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Power Supply and Redundancy

The switch supports 1 to 4 power supply modules, which can be installed in any slot. Redundant power supplies ensure high availability but also affect total power consumption. Each power supply has its own efficiency rating, which influences the overall energy usage.

Estimating Total Power

While exact numbers depend on the specific configuration, the total power consumption can be estimated by summing: Static or dynamic power of all installed line cards. Power of switch fabric, service, and MPU modules. Power consumed by fan trays at operational speed.

Overhead from power supply inefficiency. For example, a fully loaded S10506 with multiple line cards, switch fabric modules, and fans running at high speed will consume significantly more power than a minimal configuration with fewer modules and idle ports.

Practical Considerations

Data center planning: Ensure sufficient power capacity and cooling for peak load scenarios. Energy efficiency: Using fewer active ports or lower-speed fan settings can reduce power consumption. Monitoring: H3C switches often provide real-time power monitoring via management interfaces to track consumption per module.

In summary, the H3C S10506's power consumption is highly dependent on its modular configuration, operational load, and cooling requirements, and careful planning is required to estimate total energy usage accurately.

Article Content

H3C S10500X Series Multiservice Core Switch

It can power on and off modules in sequence, which reduces power impulse, electromagnetic radiation, and power consumption, and prolongs the device lifespan. H3C Intelligent Resilient Framework 2

H3C Technologies H3C S10500 Series Switches User Manual

Chassis views and technical specifications, Installing the switch, Installing frus • Read online or download PDF • H3C Technologies H3C S10500 Series Switches User Manual

H3C S10500

Independent maintenance engine - a CPU system that provides smart power management, including sequential power-on and power-off and device status check. Sequential power-on and power-off

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H3C S10506 Core Switch, S10500 Series, IPv6, 4.8Tbps

What are the benefits of using the H3C S10506 in a network deployment? The H3C S10506 provides enhanced network performance, scalability, and flexibility, allowing for seamless expansion and

H3C S10506 Installation, Quick Start

View and Download H3C S10506 installation, quick start online. S10506 switch pdf manual download. Also for: S10504, S10508, S10500 series, S10508-v, S10510, S10512.

UniFi Enterprise Campus Aggregation

Power Consumption. 1.8 Tbps high-density 100G/25G Layer 3 Etherlighting™ aggregation switch with MC-LAG support for high availability system design.

Ubiquiti ECS-Aggregation Specifications

1.8 Tbps Switching capacity 3.6 Tbps Forwarding rate 2.3 Bpps Power method 2 x Universal input, 100—240V AC Power supply 2 x Hot

In-depth analysis: What is an aggregation switch?

In many network constructions, we have all heard of switches. So do you really understand switches? Why are aggregation switches often overlooked? What is an aggregation

H3C S10506X Series Next Generation Multi-Service

H3C''s S10500X Series switches are designed for use in the data center core, next-generation campus networks, and metropolitan area network (MAN) distribution

UniFi Switches Explained

Making Sense of the UniFi Switch Lineup. Includes a comparison to EdgeSwitches, 1st Generation vs 2nd Generation UniFi Switches, and a deep dive into UniFi PoE support.

Cisco Catalyst 6880-X Series Extensible Fixed

The Cisco ® Catalyst ® 6880-X Series Switch (Figure 1) is an extensible fixed aggregation switch that delivers a best-in-class Cisco Catalyst

Idle power consumption USW-Pro-Aggregation : r/UNIFI

What is the ideal power consumption (not the max power) of the pro aggregation switch, ideally without any ports connected?

Ubiquiti UniFi USW-Aggregation | Switch for High-Speed Uplink

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Perfect for connecting UniFi switches and boosting overall network performance. The Ubiquiti UniFi USW-Aggregation offers high-speed 10G SFP+ uplinks for network aggregation.

What is the idle power consumption of the Switch Aggregation ...

I was curious about this myself. Using a Sonoff S31 flashed with Tasmota to measure, the USW-Aggregation Switch appears to use 6W at idle with no modules attached. Hope this helps!

Power Consumption Time Series: Comparison of Various Aggregation

Conclusions Power consumption must be aggregated into a single value for comparison with HEPScore, using metrics like average, median, quantiles and avg(q75, q95) The project evaluates various

Dell PowerSwitch Z9432F-ON

High-performance, high-density open networking 400GbE multi-rate aggregation switch The Z9432F-ON 100/400GbE fixed switch comprises Dell Technologies'' latest disaggregated hardware and software

Ubiquiti ECS-Aggregation Specifications

100—240V AC Max. power consumption 340W ESD/EMP protection Air: ± 12kV, contact: ± 8kV Services SMB Layer 3 100G/25G Fibre Switch LCM

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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