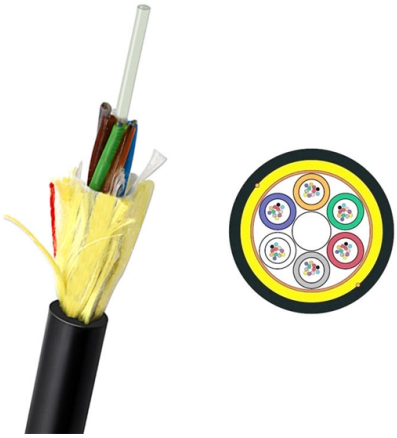
What is the typical power rating of an aggregation switch



Overview

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

Key Takeaways

Aggregation switches typically have power ratings ranging from 150 watts for small models to over 1000 watts for high-capacity, modular switches.

Overview

Aggregation switches are designed to handle high-throughput traffic between access switches and core networks. Their power consumption depends on factors such as port density, port speed (1G, 10G, 25G, 40G, 100G), Layer 2/3 features, and redundancy options. Small aggregation switches, like the Ubiquiti UniFi 8-port 10G SFP+ switch, are compact and fanless, consuming around 150–200 watts under full load.

Medium to high-capacity aggregation switches, such as the H3C S6530X series, support modular power supplies and dual power redundancy. Each power module typically ranges from 400 to 800 watts, and with dual modules installed, total power consumption can exceed 1000 watts. Enterprise-grade switches like the Cisco Catalyst 6880-X offer redundant 1+1 power supplies, supporting high-density 10G/40G/100G ports.

These switches can consume 600–1200 watts depending on the number of active ports, optional port cards, and fan trays.

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Key Factors Affecting Power Ratings

Port density and speed: More ports and higher speeds increase power draw. Redundant power supplies: Dual or modular power supplies increase total rated power. Cooling and fan trays: Active cooling adds to power consumption.

Layer 3 features and processing: Advanced routing, multicast, and SDN features increase power usage.

Summary

Small aggregation switches: ~150–250 W (fanless or low port count)Medium aggregation switches: ~400–800 W (modular, 24–48 ports)High-capacity enterprise switches: 600–1200+ W (modular, redundant power, high port density)Understanding these ranges helps in planning power and cooling requirements for data centers or campus networks, ensuring reliable operation and scalability.

Article Content

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.

H3C S6530X Series Advanced Aggregation 10GE Switches

H3C S6530X series switches provide industry-leading high performance and scalable aggregation switching solution with modular dual power, fixed uplinks (40GE/100GE) and IRF for resiliency.

Ubiquiti USW-AGGREGATION UniFi Aggregation Switch Layer 2, 8

With its built-in 36W AC/DC power supply, it can support copper Ethernet UF-RJ45-10G modules in all eight ports. USW-Aggregation is a managed Layer 2 switch with eight 10G SFP+ ports, offering link

Aggregation | TP-Link

Equipped with all-fiber ports, Aggregation Series Switches deliver up to 25 Gbps. With features such as Static Routing, DHCP Server, ACL, IGMP Snooping, STP, LAG, and centralized cloud management,

U S W-A ggregation

8) 10G SFP+ ports. The Switch Aggregation is a fully managed, Layer 2 switch with (8) 10G SFP+ ports designed to enhance your network''s switching capacity and performance by creating high-bandwidth.

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Cisco Catalyst 6880-X Series Extensible Fixed Aggregation Switch

The Cisco Catalyst 6800-X Series chassis offers integrated resiliency by providing N+1 redundant fans, 1+1 power supply redundancy, and support for Virtual Switching System (VSS),

Ubiquiti USW-Aggregation Switch Specs | PDF

It includes a 1.3" LCM color touchscreen for system insights and can be managed via the UniFi Network application. The switch is compact, fanless, and suitable for SOHO rack cabinets, with a maximum

What Is an Aggregation Switch and How to Choose?

An aggregation switch is a network device that consolidates traffic from multiple access switches, wireless access points, or other edge devices and forwards it to core switches or routers.

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Learn what an optical module is, how it works, its internal components, common types, key specifications, and where it is commonly used.

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Cisco Catalyst 9176I Wi-Fi 7 AP: 5.8 Gbps aggregate, uplink: 1x 5GbE. Aruba AP-734 (Wi-Fi 7): 6.4 Gbps aggregate, uplink: 1x 5GbE. Ubiquiti UniFi U7 Enterprise: 5.2 Gbps, uplink:

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Understanding Switch Aggregation: A Comprehensive

Defining switch aggregation and its role in network architecture Switch aggregation, also known as link aggregation or trunking, is a method

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

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What is an Aggregation Switch? | Features and Practical Benefits

This article focuses on the question of what is an aggregation switch and how it works its uses and its implementation. Read till the end to learn this very important concept in network

Aggregation Switch

An aggregation switch refers to a type of switch used to connect multiple ToR switches to a core switch/router in a cloud data center network. It enables high-bandwidth aggregation ports to be

Everything You Need to Know About Aggregation Switch

Aggregation switches are typically deployed in enterprise networks, central network connectivity, and data transfer points. They are designed to

Standalone AC Solution: Aggregation Switches Function as Gateways

In this example, aggregation switches set up stacks that function as gateways for wired and wireless users on the entire network and are responsible for routing and forwarding of user services.

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

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