

Upgraded version of liquid-cooled switch for cloud computing



Article Overview

Next-generation liquid-cooled switches deliver ultra-high throughput, energy efficiency, and thermal management for AI and cloud data centers.

Cisco Liquid-Cooled 51.2T Switch

Cisco's upgraded switch integrates direct-to-chip liquid cooling, removing up to 80% of system heat and enabling 51.2 Tbps total throughput with 64 ports at 800 Gbps each . Key features include:

- Targeted cooling for CPU, Network Processing Unit (MPU), and front-end optics, dissipating nearly 2,000 watts of heat .
- Energy efficiency: Up to 28% reduction in overall data center power consumption due to reduced cooling load .
- Scalability: Flexible configurations down to 400 Gbps or 200 Gbps per port.
- AI-ready design: Supports dense fabrics for large AI clusters, enabling high-performance workloads with minimal thermal compromise .

Alpha Networks 1.6T Liquid-Cooled Switch

Alpha Networks offers a 1.6T switch using the Broadcom Tomahawk 6 chip, achieving 102.4 Tbps per chip . Highlights include:

- Direct liquid cooling removing over 1.8 kW of heat per module.

Article Content

Liquid-cooled switch delivers 102.4 Tbps switching capacity per chip

Designed for AI/cloud data center and high-performance computing (HPC) applications, the product addresses high

H3C's Core Liquid Cooling Breakthrough: Redefining 800G Switch ...

Building on its S9827 series 800G switch platform, which already incorporates liquid cooling design and has been

Google TPU v6 Pod Deployments Redefine Liquid Cooling

Google TPU v6 infrastructure deployment sets new liquid-to-liquid cooling standards with optical circuit switching and

Liquid cooling of data centers: A necessity facing challenges

Immersion cooling has the potential of reducing infrastructure size by one-third of air cooled data centers. Single

Direct liquid cooling solutions | HPE

Learn about innovative 100% fanless direct liquid cooling and other liquid cooling solutions from HPE for

Top Strategies for Data Center Liquid Cooling in 2025

Discover cutting-edge data center liquid cooling strategies for 2024. Boost efficiency, reduce costs, and future-proof

What is Liquid Cooled Switch?

A liquid cooled switch is an advanced networking device designed for data centers, utilizing liquid-based cooling

AWS rolls out liquid cooling in data centers

The third is cooling. This is the element without which those servers could overheat and shut

A Guide to Data Center Liquid Cooling

Explore data center liquid cooling as the solution to manage heat in high-density computing environments. Discover

Cisco Liquid Cooling: AI Forces a Major Pivot in 2025

Discover how AI forces Cisco's liquid cooling pivot in 2025. Explore the strategy for next-gen AI data centers and the partnerships

How liquid cooling is redefining data center efficiency beyond PUE

Liquid cooling data center efficiency goes beyond PUE, enabling higher AI performance, better PCE, improved WUE,

Liquid Cooling: Use Cases, Innovation, and Deployment Readiness

Liquid cooling for edge computing cooling may be seen as a challenge due to density concerns and deployment considerations.

Exploring the Future of AI Networking: Liquid-Cooled Switches ...

Cisco is leading this innovation with ongoing R& D into direct-to-chip liquid-cooled switching platforms. By connecting you to this

Alpha Networks Launches 1.6T Liquid-Cooled Switch Powered by

To meet the even more demanding cooling challenges of tomorrow, Alpha Networks " 1.6T liquid-cooled switch will not

Liquid cooling heat exchanger units

Bringing liquid cooling to air-cooled datacenters Microsoft is continuously architecting and optimizing every layer of the cloud and AI

The data center cooling state of play (2025) — Liquid cooling is on the ...

The rise of AI, hyperscale clouds, and the general need for performance have significantly transformed the design

The Future of Data Center Cooling: Liquid vs. Air – Which Will

As AI and high-performance computing drive demand for efficient cooling, the debate between liquid and air cooling

Diving Deep into the Liquid Server Cooling Choices

There are several alternative cooling methods in the marketplace. For example, some

Data Center Liquid Cooling – Is It Time for an Upgrade?

Data Center Liquid Cooling – Is It Time for an Upgrade? As the demand for cloud services,

Exploring the Future of AI Networking: Liquid-Cooled Switches on the ...

Cisco is actively innovating in direct-to-chip liquid cooling for high-performance switches, laying the groundwork for

Industry First 1.6T Liquid Cooled Switch: QFX5250-64OE-L

The QFX5250-64OE-L marks a significant evolution in data center switching, delivering unprecedented 1.6TbE

"How-to" Guide for Transitioning from Air to Liquid-Cooled High ...

This document is the result of a collaborative effort to provide guidelines for transitioning from air to liquid-cooled high-performance

Disrupting Data Centre Design

This report examines the transformative potential of liquid cooling, an emerging technology that is poised to become a cornerstone of

What is liquid cooling? A future-ready guide for data

Liquid cooling is an advanced thermal management method that uses a liquid coolant, typically water or a

Liquid cooling solutions gain momentum as AI workloads turn

Supermicro's liquid-cooling solutions, supported by the Nvidia GB200 NVL72 platform for exascale computing, have

Cisco's Liquid-Cooled 51.2T Switch: Next-Generation Data Center ...

Cisco's 51.2T liquid-cooled switch represents a significant leap forward in data center technology. By integrating direct

Interesting. Cisco shows off its liquid-cooled switch. | Rich Miller

This groundbreaking innovation features Cisco's intelligent leak detection, with 80% of heat being efficiently cooled using liquid.

Liquid cooling solutions for AI and high-density data centers ...

Explore our end-to-end liquid cooling solutions for AI, high-density IT, and sustainable thermal performance.

Exploring Liquid Cooling: The Future of Data Center

Discover how liquid cooling and other emerging technologies are revolutionizing data center

Contact Us

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