

Solution AI Server QSFP



AI Overview

QSFP-DD, QSFP112, and QSFP56 transceivers provide scalable, high-bandwidth connectivity for AI servers, enabling efficient GPU cluster interconnects at 100G, 200G, 400G, and beyond.

QSFP Form Factors for AI Servers

QSFP-DD (Quad Small Form-factor Pluggable – Double Density) supports up to 400G using 8 high-speed electrical lanes and is backward compatible with 100G and 200G transceivers, making it ideal for AI data centers transitioning to higher bandwidth networks . It is widely used in spine-leaf architectures to handle east-west traffic between GPU servers, ensuring low latency and high throughput . QSFP112 is a high-performance transceiver supporting 100G per lane, allowing flexible configurations such as 100G, 200G, and 400G. It is particularly effective for connecting AI GPUs (e.g., NVIDIA H100/A100) to 400G network fabrics and supports breakout configurations (4x100G) to maximize scalability in high-density AI clusters . QSFP56 provides 200G connectivity using four 50G PAM4 lanes. It is suitable for AI clusters that require higher bandwidth than 100G but are not yet ready for full 400G infrastructure. QSFP56 is commonly used for GPU-to-leaf connections and supports both InfiniBand HDR and 200GbE protocols .

Deployment Strategies

- Backward Compatibility: QSFP-DD modules allow AI data centers to integrate legacy 100G/200G servers with next-generation 400G/800G networks, reducing upgrade costs and complexity .
- Breakout Architectures: Using 800G QSFP ports with 2x400G QSFP112 breakout c...

Article Content

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QSFP, QSFP+, and QSFP28: What You Need to Know About the

In this article, we'll introduce you to these modules and discuss their features, parameters and applications. So whether

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QSFP, QSFP+, zQSFP, QSFP28 and QSFP56, QSFP

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Custom-manufactured QSFP optical transceivers for AI rack infrastructure, delivered 3x faster and 40% more cost-efficient than

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Learn how QSFP-DD optical transceivers enable AI data centers with 400G/800G bandwidth. Compare modules,

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Optical Transceivers | Network Solutions for AI Cluster,

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As data transmission technology has improved, high-density cabling solutions have become more efficient and

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AI Server and Infrastructure Solutions

ASUS offers AI infrastructure solutions, including AI servers, integrated racks for large-scale computing,

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Quality Challenge for the Era of AI Server With hi-tech evolution, in recent years, the high-performance Servers, so-called AI

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Accelerated AI Clusters | HPC Datacenter | Enterprise Networking

NADDOD is a professional provider of innovative optical networking solutions for AI Data Centers, HPC InfiniBand/Ethernet,

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HTF DWDM equipment,OTN Solution,QSFP28 OSFP

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Scaling AI Clusters: How 800G OSFP to 2x400G QSFP112 Breakout ...

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Top Five AI Server Companies for Data Centers and

Servers to Racks & Clusters: Leading AI server manufacturers recognize the demand for

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Looking for NVIDIA DGX Spark QSFP servers? Discover top-rated AI supercomputers with PCIe Gen4, 8x A100 GPUs,

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Artificial Intelligence (AI) Servers - Intel

Explore key considerations for AI servers and how to design them to support AI workloads optimally.

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Optimizing AI Networks: Connecting 400G Ports with Backward

This article explores how to connect 400G ports with backward-compatible QSFP-DD modules while leveraging QSFP112

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How 400G QSFP-DD AOC is Driving the Development of AI and High ...

As AI training and large-scale simulations become more data-intensive, the need for high-bandwidth, low-latency

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Cisco 200G QSFP56 Cables and Transceiver Modules Data Sheet

The Cisco® family of QSFP modules provide solutions for AI/ML data center applications, Network Interface Cards

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200G QSFP56 in NVIDIA AI Systems: High-Efficiency Networking for ...

As AI workloads and deep learning models continue to grow in size and complexity, data centers require fast,

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QSFP 200G Transceiver for AI Clusters | Yingda

The 200G transceivers that can be used in AI clusters mainly include QSFP56 SR4, QSFP-DD, and OSFP

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The Ultimate Guide to QSFP Cage Connectors and

Discover fibermall's expertise in QSFP cage connectors. Optimize your interconnect

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Dell provides end-to-end AI solutions to boost your business productivity through the Dell AI Factory and Generative AI.

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Artificial Intelligence (AI) Service Providers & Solutions | HCLTech

Supercharge enterprise-scale transformation with HCLTech's AI solutions. Leverage GenAI, automation, and Responsible AI to drive

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AI Data Center Networking: QSFP-DD Guide for GPU Clusters

Deploy QSFP-DD for AI clusters with confidence. Learn bandwidth requirements, QSFP-DD vs OSFP for AI, and GPU

Contact Us

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