

Supplier PoE Switch QSFP-DD



Overview

PoE Ethernet Switches Need PoE switches to build surveillance systems or flexibly deploy end devices in SMBs?

Buy PoE switches transmitting both data Ether.

Key Takeaways

QSFP-DD PoE switches are available from vendors like QSFPTEK, TE Connectivity, and Molex, offering high-density, high-speed ports compatible with 400G and 800G transceivers. Overview of QSFP-DD PoE Switches

QSFP-DD (Quad Small Form-factor Pluggable Double Density) switches are designed to support high-speed networking with an eight-lane electrical interface, enabling up to 400 Gbps per port using 50 Gbps PAM4 signaling, and up to 800 Gbps with 112G PAM4 modules . These switches are backward compatible with legacy QSFP modules, allowing integration with existing infrastructure while providing a path for future upgrades . For PoE applications, modern QSFP-DD modules typically fall into Class 6–8 power categories, consuming approximately 10W to 25W per port. Switches must support these power levels to ensure proper operation; older switches with lower PoE capacity may fail to power QSFP-DD modules .

Key Features to Consider

- Port Density: QSFP-DD switches double the port density compared to QSFP28, allowing more connections in the same chassis footprint .

- **Backward Compatibility:** QSFP-DD cages and connectors support QSFP, QSFP28, and QSFP+ modules, providing flexibility for mixed deployments .
- **Thermal Management:** QSFP-DD cages often include integrated heat sinks to handle higher power modules efficiently, maintaining signal integrity and reliability .
- **Electrical Flexibility:** Support for downshifting to 25 Gbps NRZ ensures compatibility with older transceivers while enabling full 400G or 800G operation .

Notable Suppliers

- **QSFPTEK** – Offers a range of PoE Ethernet switches with QSFP-DD ports, supporting high-speed transceivers and global shipping .
 - **TE Connectivity** – Provides QSFP-DD connectors, cages, and integrated solutions optimized for thermal performance and high-density data center applications .
 - **Molex** – Supplies QSFP-DD interconnect systems with 8-lane ports, backward compatibility, and support for 28G NRZ, 56G PAM4, and 112G PAM4 signaling .
- #### Recommendations
- **Verify PoE power class compatibility** before procurement to ensure the switch can power QSFP-DD modules.
 - **Check firmware and electrical signaling support** for 50 Gbps PAM4 per lane to achieve full 400G throughput.
 - **Consider future scalability:** QSFP-DD switches allow upgrades to higher-speed modules without replacing the chassis.
 - **Evaluate thermal design** if deploying high-power PoE modules to prevent overheating and maintain performance. QSFP-DD PoE switches are ideal for high-performance data centers, AI/ML workloads, and cloud networking, providing both high bandwidth and flexible deployment options while maintaining backward compatibility with existing QSFP infrastructure.

Article Content

PoE Ethernet Switches

Need PoE switches to build surveillance systems or flexibly deploy end devices in SMBs? Buy PoE switches transmitting both data

Ethernet Gigabit L2+PoE Switches Gigabit Ethernet Switch

QSFPTEK offers 24 ports Gigabit Ethernet PoE (Power over Ethernet) switches, which provide network connectivity and power to

QSFP-DD Optical Transceivers for High-Speed Connections

QSFP-DD ports incorporate a riding heatsink that can be sized independently of the optical module, added on top of the module, or

QSFP-DD Connectors, Cages and Cable Assemblies

QSFP-DD provides high-performance computing capability. The QSFP interconnects density is doubled with electrical interface,

QSFP-DD CONNECTORS & CABLE ASSEMBLIES PRODUCT

The QSFP-DD portfolio's backwards compatibility allows existing QSFP modules to be plugged into QSFP-DD ports. Our QSFP-DD

Cisco QSFP-DD800 Transceiver Modules Data Sheet

Product overview The Cisco QSFP-DD800 modules introduce 8x100G and 2x400GGBASE Quad Small Form-Factor Pluggable

QSFP-DD Connector System

QSFP-DD Interconnect System's 8-lane electrical interface transmits 28G NRZ, 56G PAM-4 and 112G PAM-4, up to 200, 400 or 800

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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