

Selection Guide for QSFP28 Access Switches for Base Station Use



Overview

Use SFP28 for new access (25G), QSFP28 for the 100G workhorse, and consider QSFP-DD/OSFP if AI/HPC 400G/800G is in the plan. A QSFP28 switch is a networking platform that supports 100-Gigabit Ethernet through QSFP28 form-factor ports. Some switches offer native QSFP28 ports, meaning the cage and ASIC are specifically designed for 100G operation. It uses four electrical lanes to deliver a total throughput of 103. This 4×25G design is what separates QSFP28 from its 40G predecessor. This article provides a step-by-step guide to selecting the right type of QSFP28 module. Define the Application What are you connecting?

Server to Switch?

Switch to Switch?

Data Center Interconnect (DCI)?

Metro connection (citywide)?

Different applications need different distances, speeds, and. In this guide, we provide a comprehensive, practical overview of 100G QSFP28 modules, covering their working principles, module types, key specifications, typical applications, and a step-by-step selection framework to help you make confident, informed decisions for your network. 5–6W) than legacy CFP/CFP4 modules (6–24W). This guide synthesizes technical specifications from IEEE/MSA standards. When you pick a 100G QSFP28 transceiver, think about what your network needs. Check important things like compatibility, how far data must travel, fiber type, connector type, where you will use it, and if it will work in the future.

Article Content

QSFP28 Compatible Switches: Complete Guide by Vendor

QSFP28 compatible switches explained: Cisco, Arista, Juniper, and NVIDIA platforms. Learn breakout support, FEC settings, and compatibility verification.

QSFP28 Module Types: Selection Guide for 100G Networks

After reading, you will understand exactly what each QSFP28 module type does, when to use it, and how to match it to your specific fiber infrastructure and switch platform.

Selecting the Right QSFP28 Module

With so many different QSFP28 optical transceiver modules available for 100G connections, it can sometimes be overwhelming to decide on which module is the right one. This

100G QSFP28 Transceivers: Types, Specs and How to Choose

In this guide, we provide a comprehensive, practical overview of 100G QSFP28 modules, covering their working principles, module types, key specifications, typical applications, and a step-by-step

Navigating 100G QSFP28 Options: Key Technical Distinctions

This guide synthesizes technical specifications from IEEE/MSA standards, real-world deployment data from LightCounting, and cost analysis from hyperscaler case studies to help

A Complete Guide to Selecting 100G QSFP28 Optical Transceivers:

This definitive guide cuts through the confusion, exploring all major 100G QSFP28 options – from SR4 and LR4 to CWDM4, Single Lambda, and beyond – helping you make an

SFP+ vs SFP28 vs QSFP28 vs QSFP-DD: Switch Port Plan and

It's a switch-port planning guide: how to map access / aggregation / core roles to the right port form factors (SFP+/SFP28/QSFP28/QSFP-DD), then choose DAC/AOC/fiber + connectors (LC

QSFP28 Transceiver: Complete 100G Connectivity

QSFP28 transceiver guide covering module types, pricing, compatibility, and deployment. Learn how to choose, deploy, and troubleshoot

SFP vs SFP28 vs QSFP28 vs QSFP-DD/OSFP: 2026 Data Center

A 2026-ready, engineer-focused guide comparing SFP, SFP28, QSFP28, QSFP-DD and OSFP transceivers. Learn decision rules, deployment use cases, cost/risk factors, and compatibility

100G QSFP28 SR4 vs LR4 vs CWDM4: The Architect's Selection Guide

Master 100G QSFP28 selection. Compare SR4, LR4, and CWDM4 on cost, thermal limits, and fiber physics. Learn to avoid single-lane RX failures and optimize data center ROI with

100G QSFP28 Transceiver Selection Tutorial For Beginner's

DWDM Single Lambda QSFP28 transceiver module is designed for use in C-band DWDM networks with 100GHz ITU Grid spacing for Data Center Interconnectivity. The modules have

Understanding the Difference Between SFP vs

The rapid evolution of network technologies has led to a variety of transceiver modules, each designed to meet specific performance and scalability

SFP Compatibility Master Guide: SFP+ vs SFP28 vs QSFP28 ...

Market Trends & Application-Specific Selection Data Center Dominance (65% of SFP28 Revenue) 25G Server Uplinks: SFP28 DACs replacing 10G SFP+ for AI/ML workloads 100G Spine

Models, specifications, and compatibility

Models, specifications, and compatibility QSFP28 optical transceiver modules provide a transmission rate of 100 Gbps.

10G XFP Single-fiber vs Dual-fiber Transceivers for Network Upgrade

Many clients get confused between dual-fiber and single-fiber BiDi XFP — here is a clear application guide for your project selection. 10G XFP Dual-fiber Dual-fiber design uses separate TX/RX ...

Everything You Need to Know About QSFP28 Ports:

Learn about QSFP28 ports: features, cable options (DAC, AOC, SMF, MMF), interoperability with SFP, and use cases in data centers, AI/HPC and

100G QSFP28 Optical Module Selection Guide: Medium to Long

This article tells you how to choose 100G QSFP28 modules for medium and long transmission distances, as well as the advantages of QSFP28 modules and why you should choose it.

Cisco Switch Selector

Quickly identify the right Cisco switch for your needs, whether you're looking for a new switch or upgrading an old one for an enterprise LAN, a data center, outdoors, or industrial operations. Just

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