

# What is a high-speed optical backplane connector



## Overview

Optical backplane connectors are essential components in high-speed data transmission systems. TE Connectivity gets the best. Amphenol is the leader in high-speed, high-density connection systems, designing and manufacturing the industry's leading connectors and backplane systems. Amphenol solves system design challenges with integrated interconnect solutions for applications in the networking, communications, storage. AirMax VS2® connectors provide a migration path from AirMax VS® for speeds up to 20Gb/s, providing a margin of safety for typical 802.3ap system performance with the flexibility of an open pin field design. The connectors leverage AirMax VS® and VSe® design features and technology to achieve. Samtec offers the largest variety of high-speed board-to-board and backplane interconnects in the industry with full engineering support, online tools and an unmatched service attitude. These high density array. Molex collaborates with our customers to create innovative, scalable solutions that seamlessly support rapidly evolving speeds and feeds—while minimizing insertion loss and maintaining optimal signal integrity. This hermaphroditic backplane system supports 224Gbps data rates by providing a compact. I rise times, requires better performing, high speed connectors.



## Article Content

Homepage | Nicomatic

Compact IP67 Connector: High-Performance Sealing Without Compromising Space 24 February, 2026 VITA Matr"yx Mezzanine & Backplane Connectors: Securing High-Density Board

High-Speed Backplane Design | Tutorials on Electronics | Next

1. Fundamentals of High-Speed Backplane Design, 2. Signal Integrity Considerations, 3. Material and Layer Stackup Design, 4. Connector and Interconnect Design, 5. Power Delivery Network (PDN)

Board-to-Board Connectors | BTB Connector | PCB

Power Many connectors offer integrated power delivery solutions, or you can pair any of our hard-metric backplane connectors with our hard-metric

Optical Solutions

Optical Flex Circuits FlexPlane Optical Flex Circuits provide versatile, high-density routing on a flexible substrate, and Routed Ribbon Solutions offer cable

A Complete Technical Guide for Backplane High-Speed

Discover what a backplane is, how backplane channels support high-speed 40G/100G Ethernet, key standards, and design challenges. Learn how

Optical Interconnect Market

Optical Interconnect Market Dynamics The Optical Interconnect Market Dynamics reflects the balance of forces shaping growth and adoption. Drivers include the rising demand for high-speed

Mezzanine Connectors | High Speed Board-to-Board

Amphenol's backplane connectors support high speed application with speeds up to 112Gb/s. Our board-to-board backplane connectors are

High Speed Connectors | Products | Amphenol

Amphenol's AirMax VSX® connectors are high speed, high density, 2.00mm pitch connectors that support 56Gb/s PAM4 performance. Innovative design reduces

High Speed Backplane Interconnect Solutions

High Speed Backplane Interconnects Once you have determined which connector description best suits your needs, use the chart below to find a part number to search the TE website.

The Top 10 Semiconductor Giants by Market Cap Today

The Biggest Semiconductor Companies by Market Cap in 2025 The semiconductor industry is the backbone of our digital world. The biggest semiconductor companies design and build

What is Optical Backplane Connectors? Uses, How It Works & Top ...

Unlike traditional electrical connectors, optical backplane connectors use light signals to transmit data, offering higher bandwidth and lower latency.

Backplane Connectors

Delivering signal speeds up to 112Gbps, the Impulse Backplane Connector System provides a flexible, scalable and modular solution with cable, conventional and

It's not too late to learn about \$SMTC > Sells the analog signal ...

On the copper side, it uses CopperEdge to keep electrical signals usable across cables, boards, and backplanes. On the optical side, it uses TIAs, drivers, and now HieFo lasers to capture

High Speed Connectors, Board-to-Board Connectors & Systems

These high density array connectors feature a variety of pitches, stack heights, and configurations for maximum routing, grounding, and design flexibility. NovaRay® combines extreme density and

Backplane Connectors

Backplane Connectors Offering a broad portfolio of backplane connectors that include SOSA aligned optical, COTS plus hard metric, VITA standard and high

Co-Packaged Optics — a deep dive | APNIC Blog

Even with high-quality optics, hard failure rates are around 100 FIT, and soft failures — often caused by dust in the connectors — are more frequent.

Backplane Connectors, Micro Backplane Connector

Samtec's backplane connectors include ExaMAX® for high-speed 56 Gbps PAM4 performance and XCede® HD for high-density flexibility and space savings.

InfiniBand

QSFP connectors are used. The InfiniBand Association also specified the CXP connector system for speeds up to 120 Gbit/s over copper, active optical cables,

High Speed Backplane Connectors | Amphenol CS

Amphenol is the leader in high-speed, high-density connection systems, designing and manufacturing the industry's leading connectors and

Backplanes | Open.Tech

Improving off original VITA 46 standards, Amphenol's R-VPX Evolution 2.0 is the next generation of high-speed ruggedized backplane connectors. R-VPX

High Speed Backplane Interconnect Solutions

QUICK REFERENCE GUIDE The emergence of faster data rates and decreasing signal rise times requires better performing, high-speed connectors. TE Connectivity's (TE) broad portfolio of high

What is a Diode The Surprising Uses You Never Guessed

What is a diode? Find out how various types of diodes power devices, protect electronics, and offer surprising uses in daily life.

High Speed Backplane Connectors | TE Connectivity

High-speed backplane connectors for keeping data flowing Our broad portfolio of high-speed backplane connectors provides you with the design flexibility you

High Speed Backplane Interconnect Solutions

High Speed Backplane Interconnect Solutions The emergence of faster data rates, and decreasing signal rise times, requires better performing, high speed connectors. TE Connectivity's broad

Global Backplane Products Market 2025

The Global Backplane Products market was valued at USD 2.8 billion in 2023 and is projected to reach USD 4.1 billion by 2030 at a CAGR of 5.7%. Segmentation Analysis: Detailed breakdown by product

angola-imported-high-temperature-resistant-backplane-connectors ...

17 Companies and suppliers for angola-imported-high-temperature-resistant-backplane-connectors-wholesale Find wholesalers and contact them directly Leading B2B marketplace Find companies now!

High Speed Backplane Connectors | TE Connectivity

Our broad portfolio of high-speed backplane connectors provides you with the design flexibility you require to solve specific performance challenges. Consider

Program Manager

Amphenol High Speed Products Group is the market leader for high speed, high bandwidth electrical connectors for the Telecom/Datacom market (Mobile Networks, Storage, Servers, Routers,

High Speed Backplane Connectors | Amphenol CS

Whether the priority is a proven cost-optimized solution or the best performing backplane connector on the market, Amphenol is your source for

Next generation, high density, low cost, multimode optical backplane ...

on and performance of next generation optical backplane interconnect components. This low cost, dense optical interconnect technology combined with recent advances in 10G/lane and beyond, mini.

## Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://saastisfy.fr>

Email: [sales@saastisfy.fr](mailto:sales@saastisfy.fr)

Phone: +33 6 52 81 47 39

Address: 75 Rue de Rivoli, 75001 Paris, France

This document is for informational purposes only. Specifications subject to change without notice.

