

High-speed optical connector NRZ available now



Article Overview

High-speed NRZ optical connectors are available today with data rates from 25Gbps to 56Gbps per channel, supporting multi-mode and single-mode fiber for data center, HPC, and AI applications.

Available NRZ Optical Transceivers and Connectors

1. Amphenol LEAP On-Board Transceiver

- 12-channel duplex optical transceiver
- Up to 25Gbps per channel (300Gbps cumulative) on multi-mode fiber
- Qualified to Telcordia standards and in production since 2016
- Designed for datacenters, supercomputers, and 5G broadband applications
- Supports non-standard protocols in this data rate range

2. NVIDIA Mellanox LinkX InfiniBand Transceivers

- Single-mode 1310nm wavelength transceivers available in NRZ and PAM4
- NRZ options support 10G/25G per channel for short to medium reaches (up to 500m for PSM4, 2km for CWDM4/FR4, 10km for LR4)
- Compatible with QSFP+, QSFP28, QSFP56, and OSFP form factors
- Extensively tested for low bit-error-rate and high reliability in GPU-accelerated AI systems

3. Samtec High-Speed Board-to-Board Connectors

- NovaRay® Extreme Performance (EP) and AcceleRate® High-Performance (HP) arrays
- Rated for 56Gbps NRZ applications...

Article Content

Supports High Speed Differential Signals Up to 56Gbps NRZ

Unique contact design and contact arrangement enables superior high speed transmission. The 2-point contact design minimizes

Advanced Optical Transceivers Enhance Data Rates | Electronics

Optical pluggable transceiver stretches data rates and distances Amphenol has released the QEPT 4-TRX 200G NRZ,

What Is Non-Return-to-Zero (NRZ) and How Does It Work?

Learn what Non-Return-to-Zero (NRZ) is, how NRZ works, its applications, advantages, and limitations. Click for

100 Gigabit Ethernet

40 Gigabit Ethernet (40GbE) and 100 Gigabit Ethernet (100GbE) are groups of computer networking technologies for transmitting

Understanding PAM4 Signaling: A Beginner Guide

To accommodate exponential traffic growth such as cloud computing and big data, high-speed 400G and 800G

LEAP OBT 12-TRX 300G NRZ | Amphenol Active Optics Products

It has been qualified and introduced in production in 2015 to serve the needs for high-density and high-data rate applications in

NRZ vs PAM4: In-Depth Guide to High-Speed Signal Encoding

NRZ Strengths: Simplicity —low-cost optics, minimal DSP overhead. Robust SNR and built-in tolerance. Ideal for short

Ultrafast optical circuit switching for data centers using integrated ...

Optical technologies could enable fast and power-efficient networks for data centers. Here, the authors report Si3N4

Amphenol Active Optics Products

LEAP OBT 12-TRX 300G NRZ The LEAP® On-Board Transceiver is a commercial 12-channel duplex optical transceiver capable of

PAM4 vs NRZ: Optical Ethernet Modulation Comparison

Compare PAM4 and NRZ modulation in optical Ethernet. Learn how PAM4 doubles data rates with better bandwidth

NVIDIA Mellanox LinkX Ethernet AOC Cables

NVIDIA ® Mellanox ® LinkX ® Optics AOC cables are the lowest-cost way to create high-speed 25G–400G optical links in Ethernet

Supports High Speed Differential Signals Up to 56Gbps NRZ

Supports High Speed Differential Signals Up to 56Gbps NRZ/112Gbps PAM4 IT14 Series: Low Profile BGA Mezzanine Connector

Optical Transceiver Types: Use Cases, Compatibility & Buying Tips

Cable type, distance, speed, form-factor, connector, and vendor compatibility — these are just a few of the critical

QSFP56 Optical Transceivers: The Ultimate Guide to 200G Networking

QSFP56 optical transceivers enable 200G Ethernet, high-density connections, and efficient upgrades for modern data

Connectors, Cables, Optics, RF, Silicon to Silicon Solutions

Silicon-to-Silicon High-Speed Board-to-Board High speed connectors, mezzanine systems with integral ground planes, high-density

Arista 400G Transceivers and Cables: Q& A

The high-speed 50G PAM-4 signals place more stringent signal integrity requirements on the DACs, and the 400G cables are

Samtec 56Gbps NRZ High-Speed Board-To-Board Connectors

The NRZ system can only transmit 1-bit, such as 0 or 1, of information per signal symbol period. These connectors are well-suited for

OSFP Cable Assemblies | High Speed Input Output | Amphenol

Our Electronics Products "Product of the Year" award winning OSFP (Octal Small Form Factor Pluggable) cable

NRZ vs PAM4 – What's the Difference?

As optical transceivers increase capacity and reach, new and more efficient modulation schemes are needed. Here we

For 50G transceivers, which is more advantageous: PAM4 or NRZ ...

Why NRZ Still Has a Role QSFP28-50G-LR Optical Transceiver Module NRZ remains a viable option for certain

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

10/25/40/100G Transceiver Modules

Leveraging NRZ and PAM4 modulation technologies, these transceivers deliver high bandwidth with low latency and optimal signal

Free-space optical communications at 4 Gbit/s data rate with a

Our demonstration establishes the foundation for developing high-speed optical wireless communication systems

Active Optics Cable Assemblies | TE Connectivity

We offer a full line of small form-factor pluggable connectors for 4G, 10G, 25G, 56G, 112g and higher speed applications. Design for

Contact Us

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