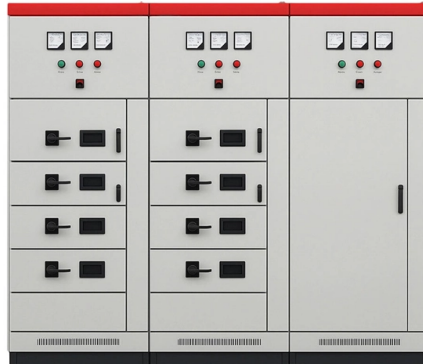


Relationship between copper connectors and optical modules



Overview

This paper provides a brief overview of the history of copper and optical interconnects, the limitations of existing interconnect solutions, and the future of co-packaged optics, including the benefits and challenges that co-packaged optics introduce. From a high level, optical interconnects perform the task their name implies: they deliver data from one place to another while keeping errors from creeping in during transmission. Another important task, however, is enabling data center operators to scale quickly and reliably. “When our customers. Choosing between copper cables and active optical cables for high speed links depends on distance, bandwidth requirements, physical constraints, and long term scalability. Driven by a need to reduce power and increase bandwidth density in data center network switches and other. “Generative AI requires a neural network inside the data center, and co-packaged optics is a way to make that network even smarter,” says Mike O'Day, Senior Vice President & General Manager, Optical Communications.

Article Content

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The industry's response is co-packaged optics (CPO), a new architecture that integrates the optical input/output (I/O) directly with the chip to resolve the distance problem.

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