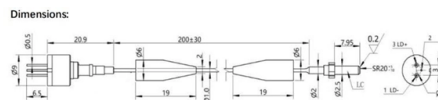


Main Functions of the 3 2t Optical Module



Overview

Pluggable optical transceiver modules are essential components in data communication systems, widely used as optical interconnects at the termination of fiber optic links. These modules perform the critical function of converting electrical signals into optical signals, and vice. The relentless expansion of data communication, propelled by advancements in artificial intelligence (AI) and machine learning workloads, as well as cloud computing, cloud storage, AR/VR, video on demand, 5G technology, the Internet of Things, and autonomous vehicles, demands a substantial increase. As generative AI models like GPT-5 push compute requirements to unprecedented levels, the interconnect technology that binds GPU clusters together is being tested against its physical limits. While the industry is currently scaling 800G and early 1.6T deployments, strategic attention has already. By doubling the per-lane bandwidth of 224G SerDes, this technology addresses the massive interconnect bottlenecks emerging as AI clusters grow to tens of thousands of nodes. Instead, it represents a fundamental shift in how. This article provides a strategic and technology-focused roadmap for the evolution of optical modules from 400G to 800G, 1.2T, helping data center operators make informed, future-ready upgrade decisions. Figure 1: A historical timeline charting Ethernet link speed evolution. In today's rapidly advancing communication landscape, the performance and efficiency of optical transceivers play a crucial role. The innovative. As 800G modules transition from early adoption to mainstream deployment, the industry is already developing the next generations: 1.

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In its first project under the umbrella of the Co-packaging Framework Document, the OIF has launched an industry-first,

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OIF publishes 3.2T Co-Packaged Module Implementation Agreement

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