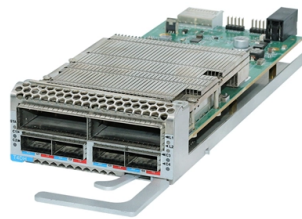


Do optical modules belong to the communications sector or the computing power sector



Overview

Operating at the physical layer of the OSI model, optical modules are core devices in optical fiber communication systems. Optical modules typically have an electrical interface on the side that connects to the inside of the system and an optical interface on the side that connects to the outside. Shortfalls in networking optics supply could hinder data center and AI expansion. As AI models grow more complex and datasets balloon in size, traditional copper-based interconnects are being replaced by optical modules. The optical module is one of the core devices of the optical communication system, and its development has a vital impact on its related industrial chain, from the upstream industry chip substrate, PCB to the downstream telecom market and data communication market, and the field of lidar driverless. The optical module and data center interconnect (DCI) market is experiencing significant expansion, driven by the escalating demand for high-bandwidth connectivity, cloud computing, 5G networks, and data-intensive applications. The market, projected to reach \$14.7 billion in 2025, is forecast to. As an essential component of optical fiber communication, optical modules are optoelectronic devices that facilitate the conversion between optical and electrical signals during the transmission process.

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