

Preview

China's ODCC has officially released the White Paper on Key Liquid Cooling Technologies for 800G/1.6T Optical Modules, unifying cold plate dimensions, contact methods, fluid interfaces, and sealing specifications for mainstream pluggable optical modules, providing a. As AI large model computing infrastructure accelerates across the industry, with 800G achieving large-scale deployment and 1.6T liquid-cooled optical modules. Liquid cooling technology, leveraging its higher thermal conductivity efficiency and energy-saving advantages, has been introduced into the optical module field, becoming a key direction for addressing the bottleneck of high-power heat dissipation. It not only effectively reduces energy consumption. While the industry-standard OSFP (Octal Small Form-Factor Pluggable) module has successfully enabled 400Gbps, 800Gbps, and 1.6Tbps optical pluggable modules, it is limited to 32 modules per Rack Unit (RU), typically requiring 2 RUs to achieve 102.8Tbps of switching. But now, advanced applications such as artificial intelligence (AI) and machine learning are taking high data processing demands to the next level -- and legacy cooling solutions for I/O modules may no longer be enough. With the rapid iteration of 800G and 1.6T, and beyond optical transceivers.

For the unique architecture of CPO, this study analyzes its heat dissipation needs in detail, and a thermal

References: Telcordia Technologies Generic Requirements, Generic Requirements for Telecommunications Data Center

This article provides insights into a successful upgrade of an air-cooled coherent metro router into a Hybrid Liquid/Air-cooled system.

This study explores the application of cold plate liquid cooling technology in co-packaged optics (CPO). By integrating optical

Summary Pro-optics has introduced a product line of high-speed optical modules designed for immersion-cooled data centers,

MPS provides compact and comprehensive solutions that feature high efficiency and low ripple characteristics to meet the design

Optical transceivers, integral components in data centers for high-speed data

Advanced Liquid Cooling Heat Sinks for Optical Modules: Unlock Full-Speed Performance Precision



Liquid Cooling Requirements for High-Speed Optical Modules

Water-Cooled Cold Plates for

As AI large model computing infrastructure accelerates across the industry, with 800G achieving large-scale

Conclusion Gigalight's immersion liquid-cooling extenders and silicon photonics liquid-cooled optical modules

In this video from SuperComputing 2019, Arlon Martin and the Samtec Optical Group are demonstrating the latest

As a leader in optical interconnect technology, Gigalight is pioneering immersion liquid-cooling extenders and silicon

For ultra-high-speed, high-power optical modules above 224Gbps, liquid cold plate has become the standard thermal

Molex Drop Down Heat Sink (DDHS) Technology Beyond liquid cooling, Molex's In-Depth Report of Thermal

As computing systems shift toward liquid cooling, an often-overlooked component, the optical module, is becoming a

Molex has developed industry-leading cooling solutions for optical I/O modules, providing greater reliability for systems running at

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