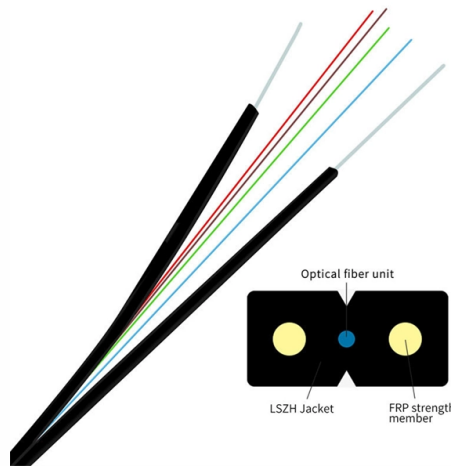


Jamaica Liquid-Cooled Switch QSFP



Overview

QSP-100M485-1HCM-ILC is a Four-Channel, Parallel, -Optic QSFP28 transceiver for 100G Base-SR4 Ethernet Applications. This transceiver is a high performance module for short-reach multi-lane data communication and interconnect applications especially for liquid immersion environment. Electronics, optics, and copper wires are housed in metal shell plugs called form-factor plugs. Plugs have a cage counterpart that is in the network switch front panels and on top of network adapters. The metal plugs have many code name extensions based on the single-channel; small-form-factor plug. 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. Examine the drawbacks of established thermal management systems and explore new. QSFP-DD1600 establishes a roadmap for systems and pluggables to improve cooling capacity thanks to a wide array of thermal innovations. SFF-8635 QSFP+ 4X 10 Gb/s Pluggable Transceiver Solution (QSFP10) SFF-8685 QSFP+ 4X 14 Gb/s Pluggable Transceiver Solution (QSFP14). High-performance data center and AI workloads are power-intensive, outpacing efficiency improvements in air-cooling technology. Power requirements for AI model training.

Article Content

Solving Cooling Interconnects for Next-Gen Data

Conventional air-cooled heat sinks are replaced with liquid-cooled cold plates, which directly contact the top surface of each pluggable module to

Liquid cooling high-density pluggable modules for a network element

U.S. patent application number 17/071073 was filed with the patent office on 2021-04-15 for liquid cooling high-density pluggable modules for a network element. The applicant listed for this patent is

Immersible Extender

A new standalone product, the Immersion Liquid Cooling Extender, is designed for immersion-cooled data centers. It extends the electrical interface of the server to

SFP vs QSFP: Key Differences and How to Choose for

SFP is still common in 1G/10G/25G access networks, while QSFP dominates 40G/100G/200G/400G backbone and AI/HPC clusters. This article breaks down

Liquid Cooling Solutions

Advanced Liquid Cooling Solution – Purpose-built thermal solutions for any cooling budget Professionally designed, built, & tested to meet the most demanding server/storage/data center

Thermal Management Solutions Report for I/O Modules

An example of this is the 1x6 QSFP-DD liquid cooling solution shown below. This solution features six independently moving pedestals which can compensate for the varying stack up for each port —

Optimizing QSFP-DD Systems to Achieve at Least 25 Watt

Abstract High performance network environments need to cool pluggable optical modules efficiently. Higher power (25 Watt) modules for QSFP-DD800 systems must dissipate this heat effectively to

100G QSFP28 850nm Immersion Liquid Cooling Module | AscentOptics

This interface uses a single address, A0h, with a memory map divided into a lower and upper area. Liquid cooling technologies removes the heat more efficiently with dielectric fluids that have high heat

Advanced Thermal Management Strategies | Molex

Thermal management plays a pivotal role in enhancing the reliability and efficiency of high-power pluggable optical modules. Explore the latest strategies in air and

U.S. Patent Application for Liquid cooling high-density pluggable ...

Liquid-cooling could help to keep the power contacts cool and increase the power capacity. For an integrated coldplate 330, the liquid and electrical connections can be integrated in a

200G QSFP56 Immersible Cooling Extender

FIBERSTAMP's 200G QSFP56 immersion cooling extender, plays a vital role in this liquid immersion solution. It allows standard QSFP transceivers/AOCs to

OCP OAI S L COOLING

In this document, we will provide a set of basic guidance, technical requirements and best practice for OAI/OAM products using liquid cooling solutions. It aims at setting a foundation of

Juniper QFX5250 Line of Switches | HPE

AI Data Center Ethernet Switching Juniper QFX5250 line of switches The world's highest-performance, liquid-cooled, Ultra Ethernet Transport ready switch

QSFP-DD Connectors, Cages and Cable Assemblies

QSFP-DD provides high-performance computing capability. The QSFP interconnects density is doubled with electrical interface, providing superior

NEXT-GEN DATA CENTER INFRASTRUCTURE RAISES THERMAL MANAGEMENT STAKES

An array of high-speed, high-density solutions revolving around various small form-factor pluggable modules, such as SFP, SFP+, QSFP, QSFP+ and zQSFP, gained considerable traction in

GIGALIGHT Launches Immersion Liquid-Cooled Optical Extenders to

September 22, 2025, Shenzhen, China. – Since pioneering the industry's first immersion liquid-cooled optical module in July 2021, GIGALIGHT has successfully built a complete portfolio of liquid-cooled

QSFP-DD: Enabling 15 Watt Cooling Solutions

Both the SFP and QSFP modules are in high volume use in network switches today. This extensive experience in module, cage and system design has resulted in significant optimization of

SFP vs. QSFP: Differences, Use Cases, and How to Choose

Compare SFP vs. QSFP transceivers: key differences, speeds, distances, costs, and expert guidance to choose the right module for your network architecture.

2023 QSFP-DD MSA Thermal Whitepaper Final (for approval)

This whitepaper offers comprehensive details of QSFP-DD1600 performance enhancements achieved by both module and system designers. Various analyses show the evolved cooling capabilities of 64

Exploring the Future of AI Networking: Liquid-Cooled Switches on the ...

High-radix, liquid-cooled fabrics are poised to interconnect future GPU and accelerator clusters at massive scale, unbound by heat limits. Facility designs that anticipate and accommodate

400G QSFP112 850nm Immersion Liquid Cooling Module | AscentOptics

Liquid Cooling Transceivers 400G QSFP112 850nm Immersible Optical transceiver
This cable series the lack of optical transceivers which perform reliability in immersion even liquid immersion depth up to

A QSFP module with liquid cooling function

The invention relates to a pluggable optical fiber communication module in a data center or a high-performance computer switch, in particular to a QSFP module with a liquid cooling and heat...

Immersible-400G

GIGALIGHT's 400G QSFP-DD/OSFP liquid cooling optical module is designed for use in submerged data center 400GBASE-SR8 Ethernet links. It adopts 50G

Connectors and Cages

QSFP112 form-factor is a single-port, 4-channel, 400G device specifically for ConnectX-7/QSFP112 adapters and BlueField-3/QSFP112 DPUs. QSFP112 has a flat top without cooling fins

SFF-8679 Specification for QSFP+ 4X Hardware and Electrical ...

ABSTRACT: This specification defines the contact pads, the electrical, power supply, ESD and thermal characteristics of the pluggable QSFP+ module or cable plug.

Solving Cooling Interconnects for Next-Gen Data

Amphenol's liquid-cooled solution for front-panel pluggables is available for OSFP in a 1x8 ganged configuration and QSFP-DD in a 2x8

High-Speed Hardware and Immersion Cooling Solutions | FIBERSTAMP

Immersion Cooling Extender Features Significant CAPEX savings for immersion liquid-cooling data centers Support 40G/100G/200G QSFP transceivers or AOC with QSFP-QSFP flat cage 30AWG

Immersion Cooling Solution D

This is a high-speed liquid cooling heat transfer device design. The front ports are cage for QSFP/SFP, and the rear end are the high-speed extension cables. The

Immersion-Cooled 800G QSFP-DD SR8 Optical

JTOPTICS® Immersion-Cooled 800G QSFP-DD SR8 Active Optical Cable (AOC) is an advanced high-bandwidth optical interconnect solution engineered

Immersion Liquid Cooling Interconnect Solutions

Superior Cooling Efficiency, Performance and Reliability Grows Fiber is perfect for the most demanding immersion liquid cooled data centers by testing each

QSFP-DD CONNECTORS & CABLE ASSEMBLIES PRODUCT

QSFP-DD 2x1 cages and connectors" stacked configuration allows for more height from the host board to allow for a more unified airflow and larger ASIC heat sink products.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.estlascleaning.co.za>

Email: info@estlascleaning.co.za

Phone: +27 63 214 8579

Address: 22 Oxford Road, Parktown, Johannesburg, 2193, South Africa

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