

# AI Server Liquid Cooling Structure Design



## Overview

This in-depth guide covers everything from cold plate manufacturing and assembly to development requirements and rigorous testing methods, helping engineers and data center operators optimize AI server liquid cooling systems for reliability and performance. Many AI servers with accelerators (e., GPUs) used for training LLMs (large language models) and inference workloads, generate enough heat to necessitate liquid cooling. These servers are Discover additional documents & tools reserved for our partners. → Send your drawings to get engineering feedback. Microsoft is continuously architecting and optimizing every layer of the cloud and AI infrastructure stack to meet the demands of our AI advancements. Modern AI systems powering AI workloads demand higher power at higher densities, leading to a need to develop new methods of cooling to manage heat.

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Navigating Liquid Cooling Architectures for Data Centers with AI Workloads Many AI servers with accelerators (e.g., GPUs) used for training LLMs (large language models) and inference ...



This document is not a specification for OAI/OAM products. It is a set of guidelines on design, validation and implementation of liquid cooling solutions for AI Training Systems with 8x OAM ...



In this whitepaper, we offer invaluable insights into liquid cooling systems specifically tailored for AI workloads and a comprehensive guide to selecting the right liquid cooling architecture ...



Learn about liquid cooling in AI data centers. Our complete guide covers how this essential technology boosts performance and cuts costs.



At Microsoft, as we continue to expand our datacenter fleet to help enable the world's AI transformation, we're also developing methods for using air-cooled datacenters to provide liquid cooling capabilities ...



Explore how cold plate liquid cooling is transforming server chassis layouts and the physical architecture of AI infrastructure.



This paper examines the options for server liquid cooling, identifies the impact of the facility water system (FWS) and explores how sustainability can be embraced in the next evolution of data centers.



There are six common heat rejection architectures for liquid cooling where we provide guidance on selecting the best one for your AI servers or cluster. AI training and inference servers use ...



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## Contact Us

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