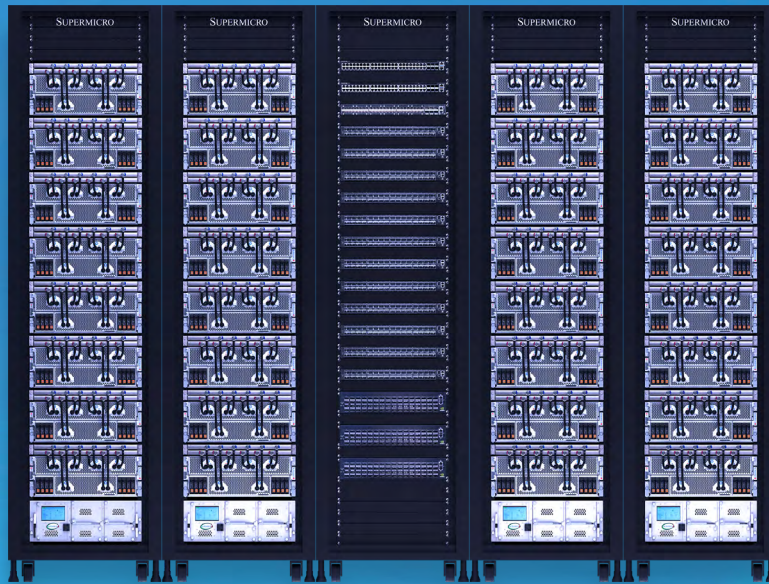




# Liquid-Cooling Solutions

Accelerate time-to-deployment with plug-and-play liquid-cooled total solutions



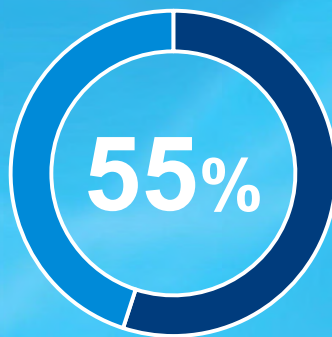
✓ 5,000+ Racks Per Month Capacity

✓ 1,350+ Liquid-Cooled Racks Per Month Capacity

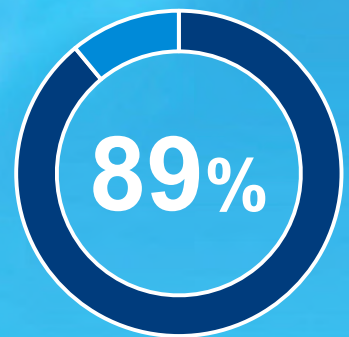
✓ Worldwide Manufacturing



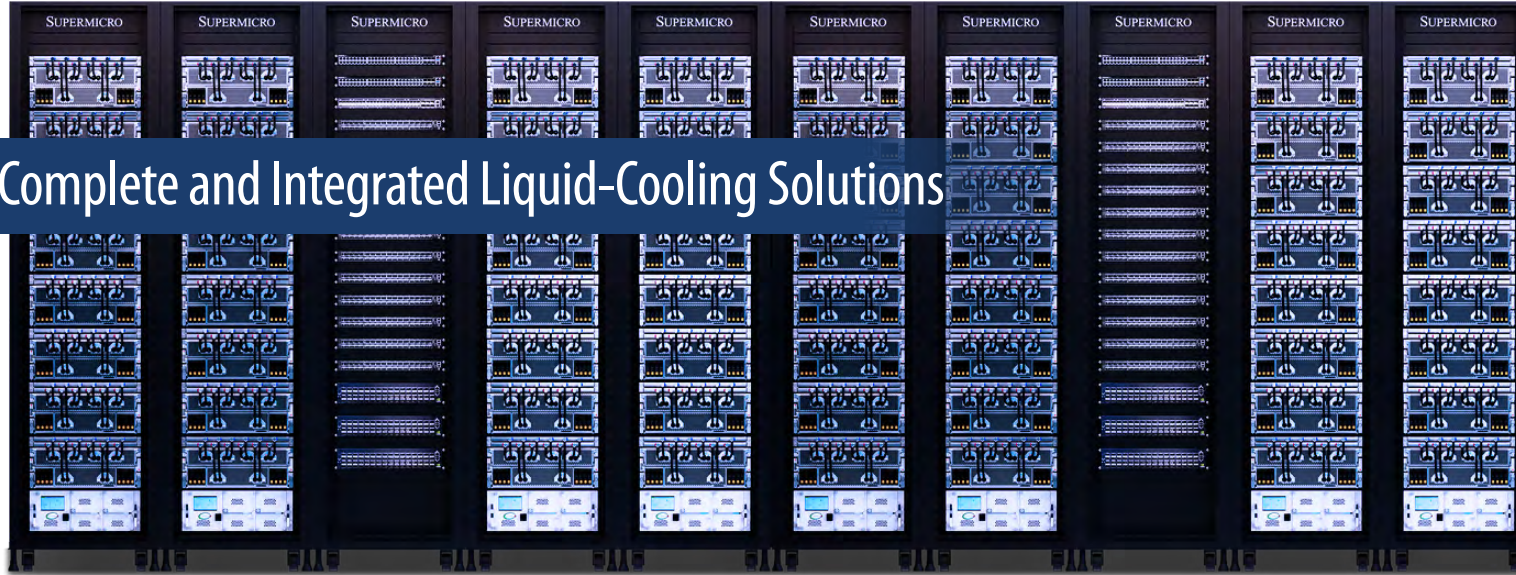
OPEX savings over 5 years from DLC Optimized Data Center & DLC GPU Servers\*



Reduction in data center server noise



Reduction in operating costs through lower power draw at server



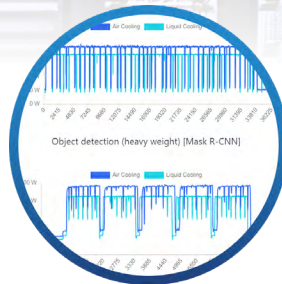
## Complete and Integrated Liquid-Cooling Solutions

Make Direct Liquid Cooling Infrastructure easy for customers to deploy and maintain, including the facility-side cooling tower.



### Solution Integration

Supermicro's Rack Integration Services leverage application optimized motherboards, chassis, cooling subsystems, networking components, cluster management tools, energy-efficient power supply technologies, and compact enclosures to design and develop customized and enterprise solutions.



### Testing and Validation

The Supermicro process involves a rigorous set of test and validation phases that ensure the most optimized and vetted solution for environments where liquid-cooling is required for maximum performance. Supermicro delivers Fully validated and tested solutions at system (L10), rack (L11) and cluster (L12) levels.



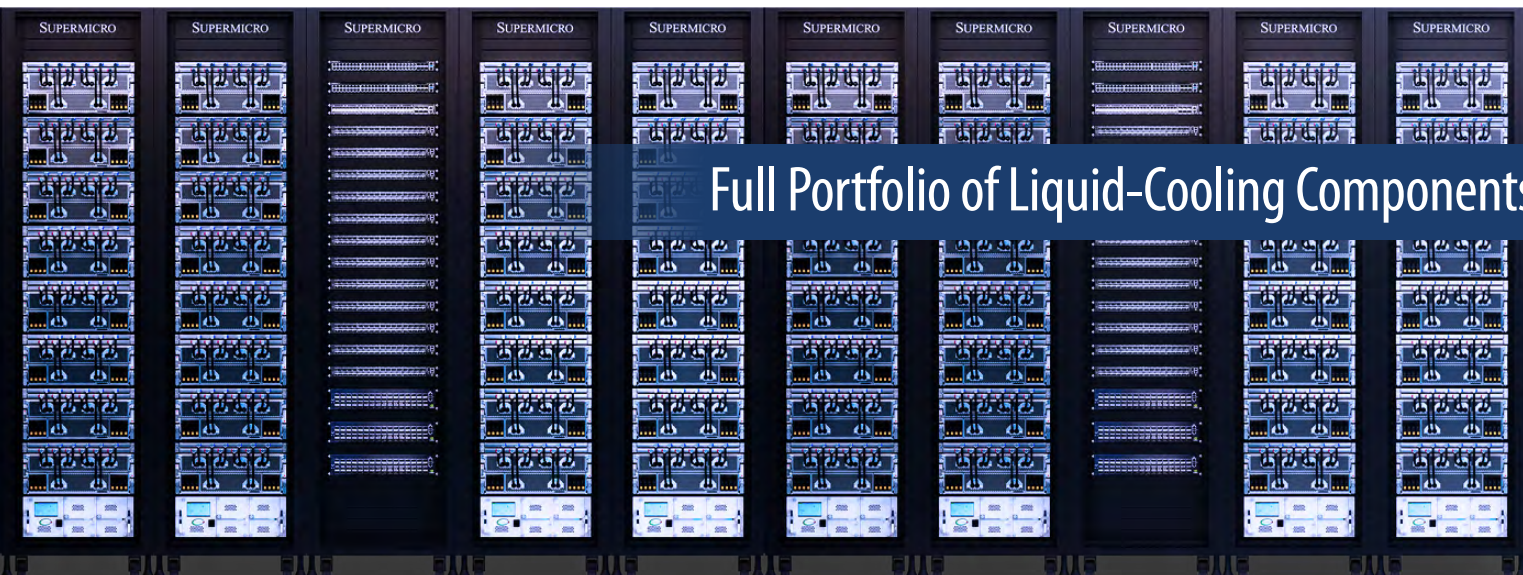
### Deployment

Supermicro delivers a complete solution, including servers, racks, networking, liquid-cooling components, and liquid-cooling tower which speeds up time to deployment and results in higher quality of the entire infrastructure. Supermicro offers accelerated lead times based on in-stock inventory with deployment in weeks versus years.



### Service Management

The Supermicro SuperCloud Composer's LCCM (Liquid-Cooling Consult Module) is a powerful service that collects vital information on physical assets and sensor data from the CPU/GPU to the CDU to the Cooling Tower, including pressure, humidity, pump, valve status, and more. CDU data is presented in real-time, enabling operators to monitor operating efficiency of their liquid-cooled environment.



## Full Portfolio of Liquid-Cooling Components

The complete rack-scale solution is available directly from Supermicro, reducing lead times and eliminating multiple vendor contact points.



**Liquid-Cooled Systems**



**Coolant Distribution Unit**



**Manifold**



**Cooling Tower**

<b>Features</b>	<ul style="list-style-type: none"> <li>• Full portfolio of liquid-cooled systems available across multiple product families and form factors</li> <li>• Custom cold plates for wide range of CPUs and GPUs</li> </ul>
<b>Product Families with Liquid-Cooling Options</b>	<ul style="list-style-type: none"> <li>• AI-Optimized GPU Servers</li> <li>• SuperBlade®</li> <li>• BigTwin®</li> <li>• FatTwin®</li> <li>• Hyper</li> </ul>
<b>Cold Plate Supporting List</b>	<ul style="list-style-type: none"> <li>• Latest Intel® Xeon® processors</li> <li>• Latest AMD EPYC™ processors</li> <li>• NVIDIA HGX™ H100 8-GPU</li> <li>• NVIDIA HGX™ H100 4-GPU</li> <li>• NVIDIA GH200 Grace™ Hopper Superchip</li> <li>• AMD Instinct™ MI300X</li> <li>• DIMM module</li> </ul>

<b>Features</b>	<ul style="list-style-type: none"> <li>• Maximum uptime and redundancy</li> <li>• Peak operating</li> <li>• 1.002 pPUE</li> </ul>
<b>Form Factor</b>	• 4U Rackmount
<b>Dimension</b>	• 480mm (W) x 1160.7mm (D) x 177mm (H)
<b>Cooling Capacity</b>	• 100kW Support up to 45°C facility water
<b>Coolant</b>	• Propylene glycol 25 wt%
<b>Pump</b>	• 1+1 Redundant, hot-swappable • Over 99% uptime
<b>Power</b>	• 1+1 Redundant, hot-swappable PSUs

<b>Features</b>	• Optimized flow distribution
<b>CDM Types</b>	• Vertical CDM Horizontal CDM
<b>Rack Unit Support</b>	• Vertical CDM: 42U and 48U • Horizontal CDM: 1U
<b>Sensors</b>	• Liquid level sensor
<b>QDC (Quick Disconnect Coupling)</b>	• Non-spill design • One-handed QDC operation • Low liquid flow resistance • Color coding

<b>Cooling capacity</b>	• Available in different sizes with multiple cell configurations up to a maximum of 10MW per unit
<b>Redundancy</b>	• Each cell can be used separately, enabling cooling tower redundancy
<b>Design</b>	• Closed-loop design to optimize system reliability • High Temperature Fills (>60°C) – Higher temperature water can be returned to the cooling tower enabling higher efficiency
<b>Water Temperature</b>	• High Temperature Fills (>60°C) – Higher temperature water can be returned to the cooling tower enabling higher efficiency
<b>Power consumption</b>	• Low power consumption with 6.2kW/MW of cooling

## Liquid-Cooled Rack Configurations



Supermicro NVIDIA MGX Systems with GH200



8U Supermicro NVIDIA HGX 8-GPU Systems



4U Supermicro NVIDIA HGX 8-GPU Systems



Supermicro Blade Systems

*Additional Liquid-Cooled Rack Configurations Available*

### 48U Rack Components

(Note: not all components listed. Configurations may vary)

Product	Qty
Supermicro ARS-111GL-DNHR-LCC	32
CDU	1
Vertical CDM	1

Product	Qty
Supermicro 8U NVIDIA HGX 8-GPU Server	4
CDU	1
Vertical CDM	1
Horizontal CDM	4

Product	Qty
Supermicro 4U NVIDIA HGX 8-GPU Server	8
CDU	1
Vertical CDM	1
Horizontal CDM	8

Product	Qty
SuperBlade® Enclosure	4
SBI-421E-1T3N	80
CDU	1
Vertical CDM	1
Horizontal CDM	8

[www.supermicro.com/liquid-cooling](http://www.supermicro.com/liquid-cooling)

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