

# Cold Plate Liquid Cooling Equipment

## Cold Plate Micro Module



### Overview

The system adopts direct-to-chip cold plate liquid cooling technology, integrating liquid-cooled racks, power distribution, refrigeration, monitoring, and cabling into a unified architecture. By combining liquid cooling with hot-aisle containment, it achieves over 40% energy savings compared with traditional air cooling.

Each module can operate independently or be deployed in clustered configurations, enabling scalable compute capacity that grows seamlessly with business demand.

### Features

#### Energy-Efficient with Free Cooling

- Powerful cooling performance with uniform temperature, low resistance, and low flow resistance.
- Maximizes natural cooling for high efficiency and energy savings.
- cooling instead of relying on traditional CRAC systems. (Since most heat is removed by the liquid loop, room air supply/return temperatures can be raised, subject to site conditions.)
- Achieves PUE < 1.20.
- High power density consolidation.

#### Factory Prefabrication and Rapid Deployment

- Modular component design with factory prefabrication.
- Standardized engineering products for fast replication and scalable capacity expansion.

#### Intelligent O&M and Efficient Operations

- Visualized operation and maintenance.
- AI-driven autonomous optimization.
- Smart display and monitoring.

#### Safe and Reliable

- Automatic fluid refill, leak detection, and anti-condensation control.
- Tight sealing, corrosion resistance, and leak prevention design.
- Redundant design of key components for multiple safeguards.
- Online maintenance support for critical components.