



# RTX 5090 Liquid Cold Plate Explained: Maximize Frame Rates, Minimize Heat [News]

**Guangdong, China 01-09-2025** - **Tone Cooling Technology Co., Ltd.**, a leading innovator in high-performance thermal management solutions, officially announces the launch of its latest breakthrough in liquid cooling technology: the **RTX 5090 Liquid Cold Plate**.



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**RTX 5090 Liquid Cold Plate Explained:**  
Maximize Frame Rates, Minimize Heat

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With the explosive release of NVIDIA's RTX 5090 GPU, the demands for greater thermal efficiency have reached new heights. The **RTX 5090** offers unprecedented graphical processing power, which, while exciting, also generates significant heat. Addressing this challenge head-on, Tone Cooling Technology Co., Ltd introduces the **RTX 5090 liquid cold plate**—a next-generation cooling solution engineered specifically to take full advantage of the RTX 5090's elite capabilities.

## What is the RTX 5090 Liquid Cold Plate?

The [RTX 5090 liquid cold plate](#) is a premium-quality water block designed to interface directly with the RTX 5090 GPU. Its purpose is to route coolant (usually a mixture of deionized

water and glycol) over critical heat-generating components of the graphics card, such as the GPU die, VRAM, and voltage regulators. The liquid draws away heat more effectively than traditional air-cooled systems or basic heat pipe assemblies.

While conventional air coolers attempt to dissipate heat using finned radiators and fans, they often fall short under intense GPU workloads. In contrast, the liquid cold plate, embedded into a larger liquid cooling loop, efficiently draws heat from components via direct contact and advanced fluid dynamics, maintaining both high clock speeds and quiet operation.

## Product Highlights: RTX 5090 Liquid Cold Plate

Here are the standout features of the new product:

### 1. Full-Coverage Design

Unlike partial-contact solutions, the Tone **RTX 5090 liquid cold plate** features a full-coverage design. It properly covers:

- The GPU core
- VRAM (GDDR7 modules)
- Power delivery components (MOSFETs, VRMs, chokes)
- This all-in-one coverage ensures no hot spot is left unmanaged, giving users complete cooling protection.

### 2. High-Efficiency Microfin Cooling Channels

Built using laser-machined copper cold plates with dense microfin structures, the cold plate maximizes surface area for thermal exchange. These ensure effective heat transfer from the [RTX 5090 liquid cold plate](#) surface directly to the coolant.

### 3. Nickel-Plated Copper Construction

The contact base is precision-machined from high purity C1100 copper and then nickel-plated for corrosion resistance without compromising thermal conductivity.

## 4. Optimized Flow Path

Advanced internal geometry ensures minimal flow restriction while optimizing coolant distribution across high-heat zones. This results in lower pressure drops and higher thermal efficiency.

## 5. Industry-Standard G1/4" Threaded Ports

Compatible with all major DIY PC liquid cooling systems. Whether using soft tubing or hardline PETG/acrylic tubing, integration is seamless.

## 6. ARGB-Integrated Top Cover

A feature gamers will love—a customizable ARGB acrylic top cover syncs with major motherboard RGB software (ASUS Aura Sync, MSI Mystic Light, Gigabyte RGB Fusion), turning thermals into an aesthetic centerpiece.

## 7. RTX 5090-Compatible Backplate

The product package includes a custom-designed, ventilated anodized aluminum backplate to provide rigidity and passive cooling to the rear memory modules.

## Why the RTX 5090 Needs a Liquid Cold Plate

Undoubtedly, the **RTX 5090** is a technological marvel, achieving jaw-dropping performance for 8K gaming, ray tracing, content creation, and AI tasks. However, users must acknowledge the very real thermal demands of such power.

With base TDP figures pushing 600W+, and with overclocking scenarios going even higher, the **RTX 5090** can easily overheat in constrained cases or long-duration workloads.

## Benefits of using the RTX 5090 liquid cold plate:

1. Sustain higher GPU boost clocks
2. Avoid thermal throttling under load
3. Reduce fan noise levels significantly
4. Improve hardware reliability and lifespan
5. Enable better overclocking results

## Availability and Pricing

The [RTX 5090 Liquid Cold Plate](https://tonecooling.com/product/nvidia-geforce-rtx-5090-liquid-cooling-plate/) from Tone Cooling Technology Co., Ltd is available now through:

Official website: <https://tonecooling.com/product/nvidia-geforce-rtx-5090-liquid-cooling-plate/>

Global distributors and system integrators

Selected tech retailers

MSRP: \$189 USD

Warranty: 6 months standard (1-year extended available)

Bulk orders for system builders and OEMs are welcome.



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# Liquid Cold Plate

**Manufacturing: Factories in China**

- Tone cooling technology co., ltd

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## About Tone Cooling Technology Co., Ltd

[Tone Cooling Technology Co., Ltd.](#), founded in 2013, is a China-based leader in advanced thermal solutions for gaming, industrial, and data center markets. Known for its commitment to innovation, precision engineering, and customer support, the company serves thousands of global clients with cooling products ranging from CPU blocks to high-density server cold plates.

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