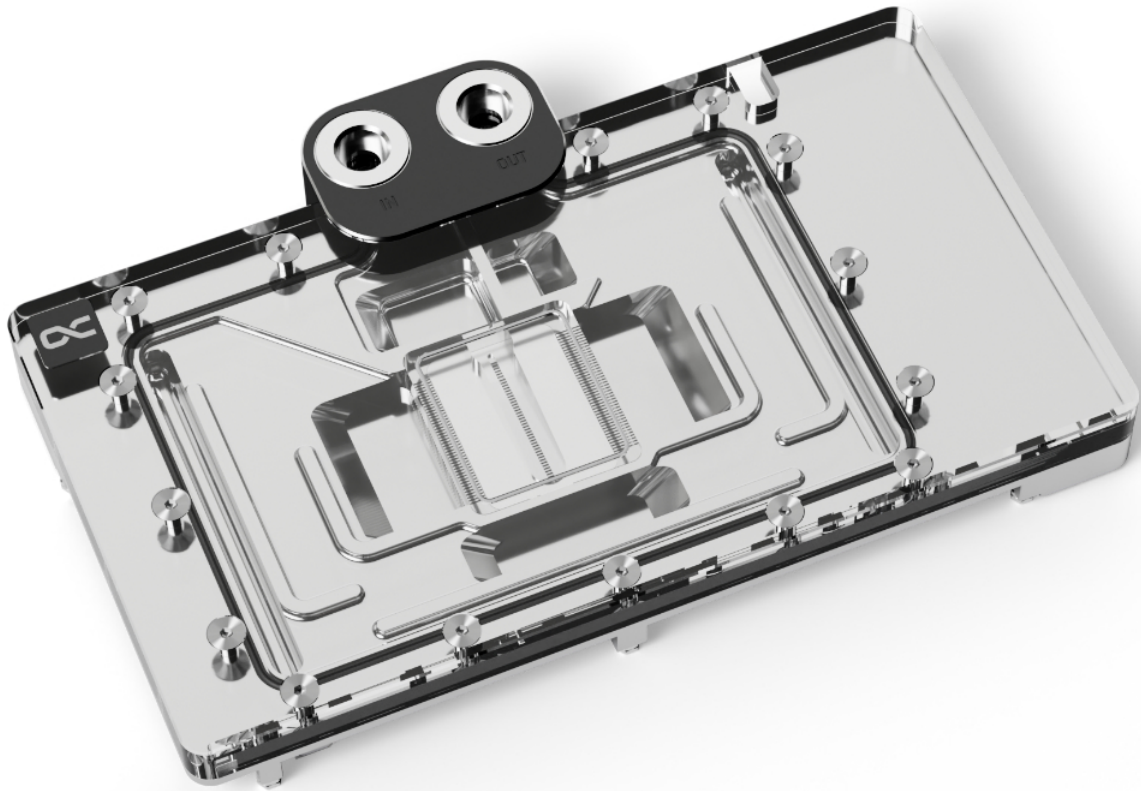


## Alphacool Core Geforce RTX 4090 Reference Design with Backplate

Alphacool article number: 13394



### Quick Info

Alphacool's Core product series is characterized by high quality, outstanding performance and the uniform and functional design language.

- Optimised fin structure enables very good water flow & increase of cooling surface
- Modified jet plate ensures optimal distribution of the water on the cooling fins
- Visually calm & simple design with digital aRGB illumination
- Chrome-plated copper cooler

## Compatibility

Attention: Please note that a part of the PCB is not covered from the water block

Attention: Unfortunately Inno3D is using two different PCB Layouts. Please check your serial number. If it looks like following, it is not compatible with our water blocks: 32-879-xxxx8xxxx

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- Inno3D GeForce RTX 4090 iCHILL Black, 24GB GDDR6X (C4090-246XX-18330005)
  - Inno3D GeForce RTX 4090 iCHILL Frostbite, 24GB GDDR6X (C4090-246XX-1833FB)
  - Inno3D GeForce RTX 4090 iCHILL X3, 24GB GDDR6X (C40903-246XX-1833VA47)
  - Inno3D GeForce RTX 4090 X3 OC, 24GB GDDR6X (N40903-246XX-18332989)
  - KFA² GeForce RTX 4090 SG (1-Click OC), 24GB GDDR6X (49NXM5MD6DSK)
  - PNY GeForce RTX 4090 XLR8 Gaming Verto Epic-X RGB Overclocked Triple Fan, 24GB GDDR6X (VCG409024TFXXPB1-0)
  - PNY GeForce RTX 4090 XLR8 Gaming Verto Epic-X RGB Triple Fan, 24GB GDDR6X (VCG409024TFXXPB1)

## Scope of delivery

1x Core Geforce RTX 4090 Reference Design	4x M2x5mm Screw
1x backplate	1x 45x45x3mm GPU-Pad
1x Screwdriver	1x 15x15x3mm Pad
4x 8x8x1mm Pad	1x 40x8x3mm Pad
1x 15x15x1mm Pad	2x 51x8x3mm Pad
1x 40x15x1mm Pad	2x 100x8x3mm Pad
2x 51x15x1mm Pad	7x M2x11mm Screw
2x 100x8x1mm Pad	1x PCI Bracket
1x Thermal grease	1x ARGB Adaptor
1x Putty tool	2x G1/4 Plug
4x EVA Washer	1x Plug tool

## Technical data cooler

L x W x H	222,36 x 145,85 x 32,65mm
Material cooler	chrome-plated copper
Material cooler top	acrylic
Max working temperature	60°C
Pressure tested	0,8 bar
Threads	4 x G1/4"
Thickness cooler bottom	11,3mm
Thickness cooling fins	0,4mm
Distance cooling fins	0,4mm
Illumination	digital aRGB LEDs
Power connector digital aRGB LEDs	3-Pin JST
Power digital aRGB LEDs	5V
Number of digital aRGB LEDs	12

## Technical data backplate

L x W x H	222,36 x 122,85 x 5,78mm
Material	aluminium
Color	black

## Download links

Manual	<a href="#">13394_Alphacool_Core_Geforce_RTX_4090_Reference_Design_with_Backplate_Manual.pdf</a>
Product pictures	<a href="#">13394_Alphacool_Core_Geforce_RTX_4090_Reference_Design_with_Backplate_pics.zip</a>

## Packaging dimensions per unit

L x W x H	330 x 200 x 50 mm
Weight	1500 g

## Other data

Certificates	CE, FC, RoHS
EAN	4250197133944
Customs code	84195080900
Guarantee	3 years

## Article text

Alphacool's Core product series is characterized by high quality, outstanding performance and the uniform and functional design language.

The copper cooler which, like the end terminal, is milled from a single piece of copper and is the core of this cooler. The fine workmanship, paired with the hard and resistant chrome plating covering the entire copper cooler, meet the highest quality standards. The chrome-plated brass G1/4" threads integrated on both sides stand out visually from the terminal. They are a central feature of the new design language that will be evident in all products in the Core series.

The aluminum backplate adapted to the design, together with the terminal, makes up the entire unit and enhances the back of the cooler with a clean and homogeneous look. The lighting consists of digitally addressable RGB LEDs, which illuminate the entire cooler evenly and effectively.

The technical advancements can be seen in the water supply to the jet plate as well as in the optimization of the jet plate itself. The jet plate has been completely redesigned based on many simulations and practical tests in cooperation with board partners. The fin thickness and spacing have been enhanced, the cooling surface has been increased and the water flow to the core components with the greatest heat output has been optimized. The enclosed special soft thermal pads with up to 7 W/mK adapt perfectly to even the smallest tolerances.

**Important note:** The RTX 4090 Core Reference cooler is not compatible with Nvidia's Geforce RTX 4090 Founders Edition. The RTX 4090 FE is compatible with the following cooler: Alphacool Core Geforce RTX 4090 Founders Edition with Backplate (Art. 13470).

