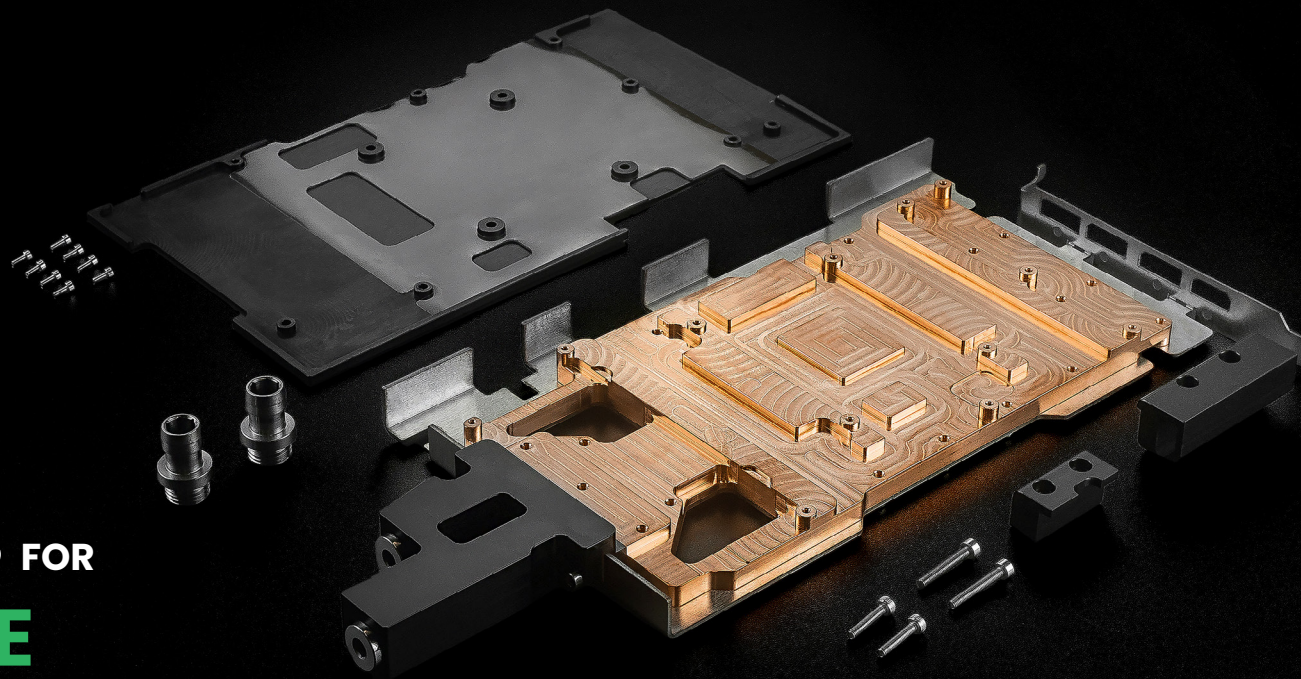




DATASHEET

# COMINO GPU WCB FOR GIGABYTE GEFORCE RTX™ 3090 TI, Cu-Steel



## KEY ADVANTAGES



High quality liquid cooling  
of the GPU



Heat dissipation increased  
up to 10 times as compared  
to the air-cooling



Thermally-tested and quality  
guaranteed. Low  $\Delta T^\circ$  between  
the chip and inlet coolant  
temperatures is assured



High efficient deformational  
cutting technology for micro-  
fins (0.25mm x 2.7mm)  
manufacturing



Designed for  
Gigabyte GeForce RTX™ 3090 Ti



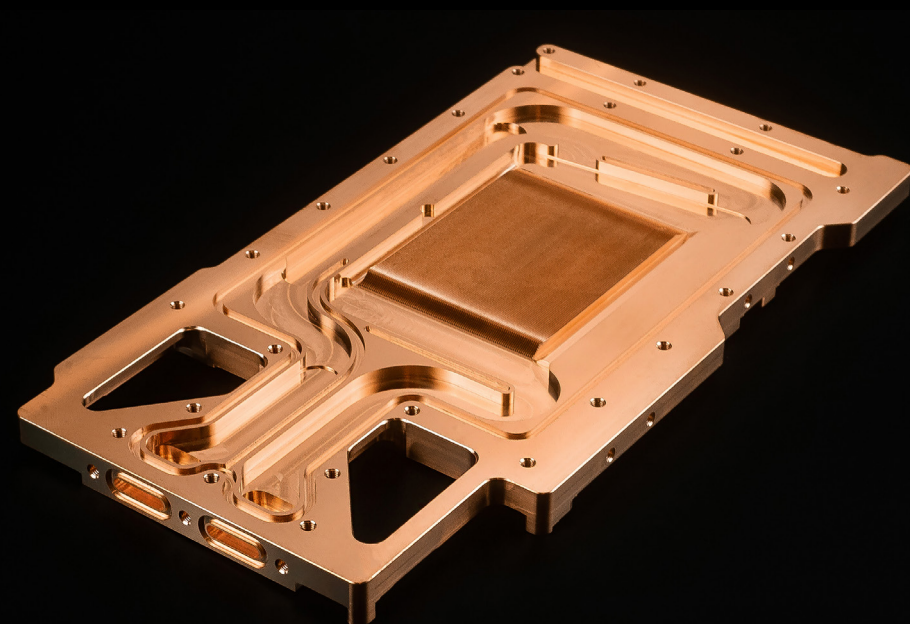
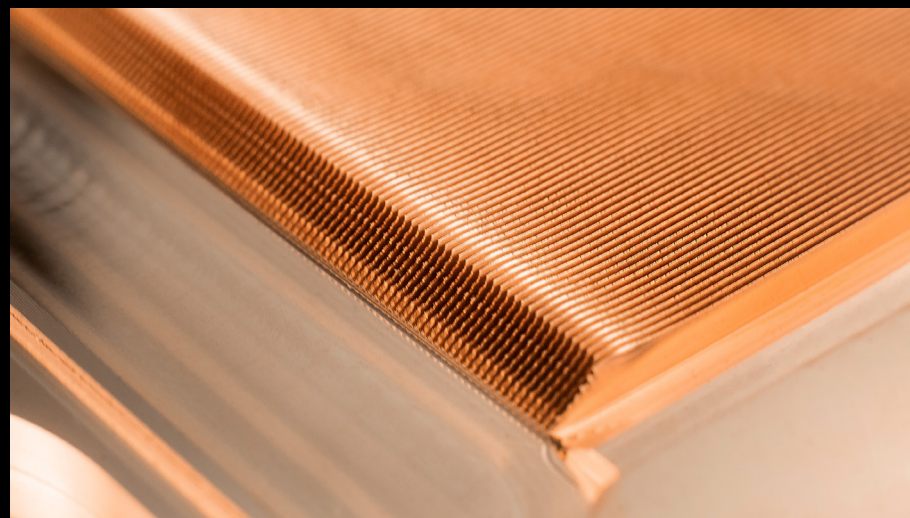
Only non-corrosive materials  
(Copper, Stainless Steel, Plastic)

The Comino liquid-cooling system is based on the deformational cutting technology that allows to transfer more heat from the source than you would normally expect with direct liquid cooling.

This unique technology allows to create a copper fin as thin as 0.1mm with 0.1mm channel and 3mm height. In Comino solution microfins are optimized for low pressure drop with the thickness of 0.25mm, channel - 0.25mm and 2.7mm height.

Large increase (up to 12 times) of the waterblock surface area that contacts with the coolant allows faster heat dissipation. It prevents thermal throttling of CPU and GPU keeping temperatures within a safe range even at 24/7 operation in harsh environment.

This advantage makes our waterblocks extremely efficient (low  $\Delta T^\circ$ ) and cost-effective.



Fullcover Waterblock  
cools the GPU, GDDR,  
and the VRM altogether



Single PCI Design



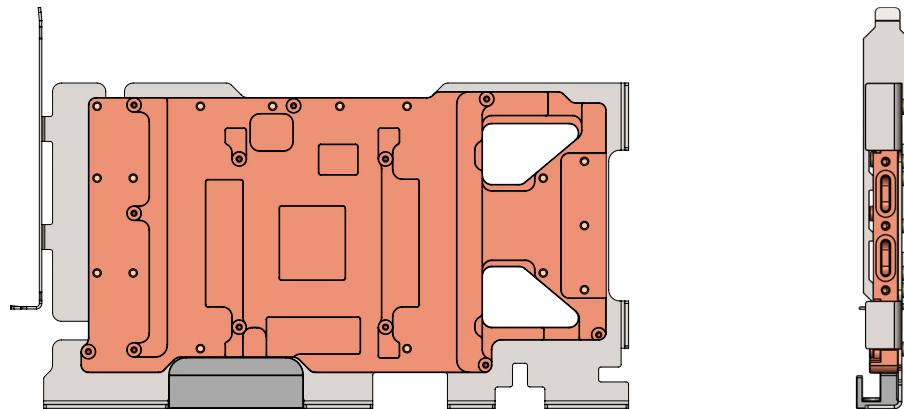
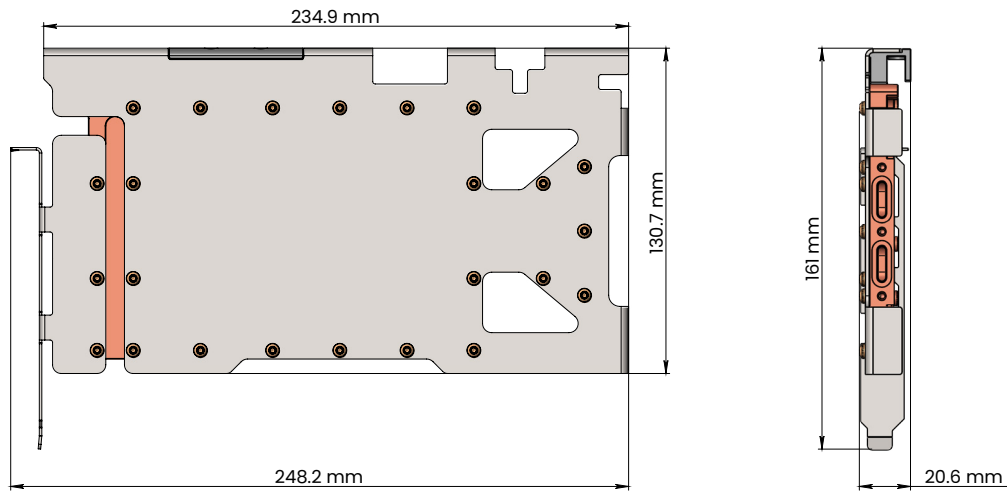
90° Adapter Option —  
Workstation Ready



Fittings on the Back —  
Server Ready

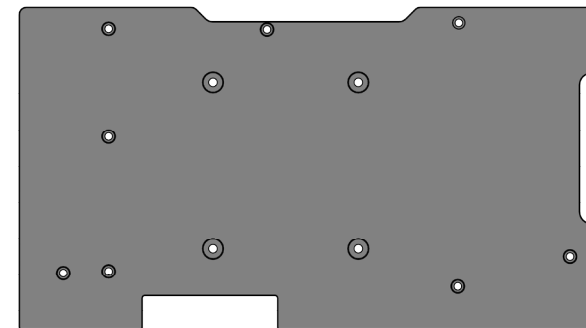
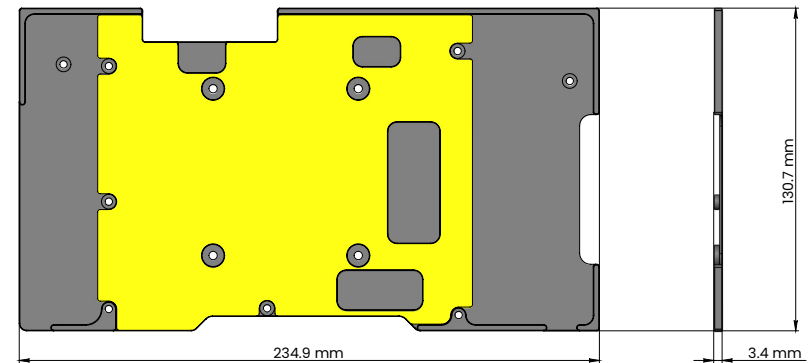
## Core Block

ID	Name	Release date
5650	Comino WCB GPU (Gigabyte 3090Ti) Core kit for ver. w/ backplate	Jun, 2022



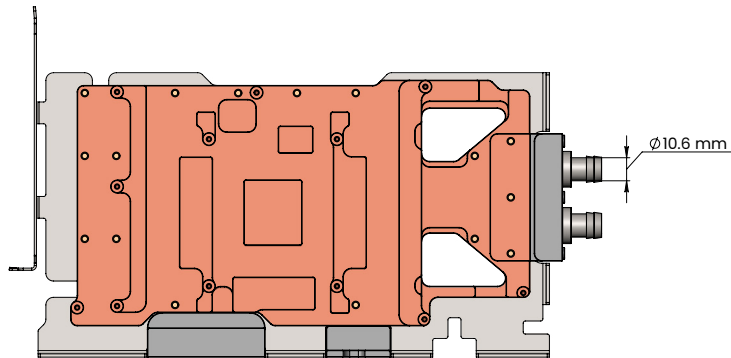
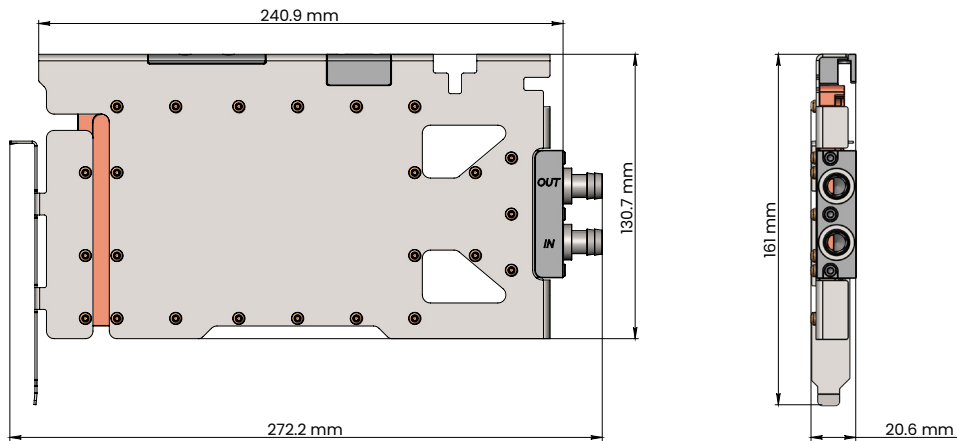
## Backplate Kit Options

ID	Name	Release date
5651	Comino WCB GPU (Gigabyte 3090Ti) Backplate kit (Black)	May, 2022

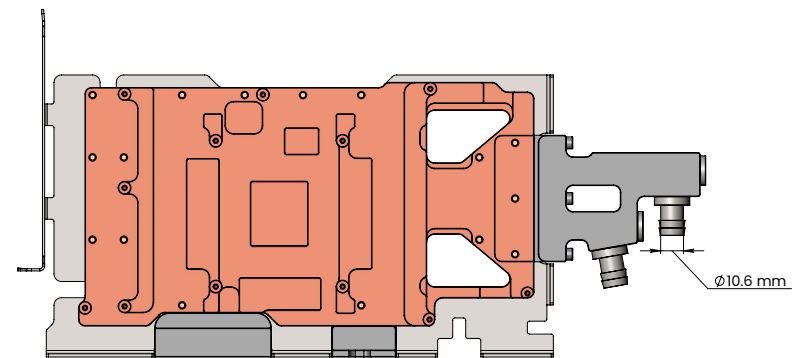
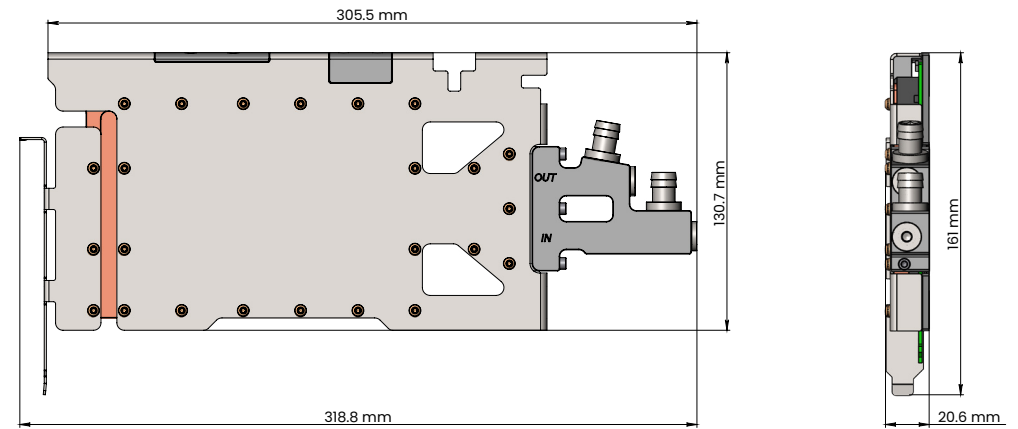


### Kit Options

ID	Name	Release date
5650	Comino WCB GPU (Gigabyte 3090Ti) Core kit for ver. w/ backplate	Jun, 2022
5653	Comino WCB GPU (Gigabyte 3090Ti) Straight Adapter 2x G1/4" KIT	Jun, 2022



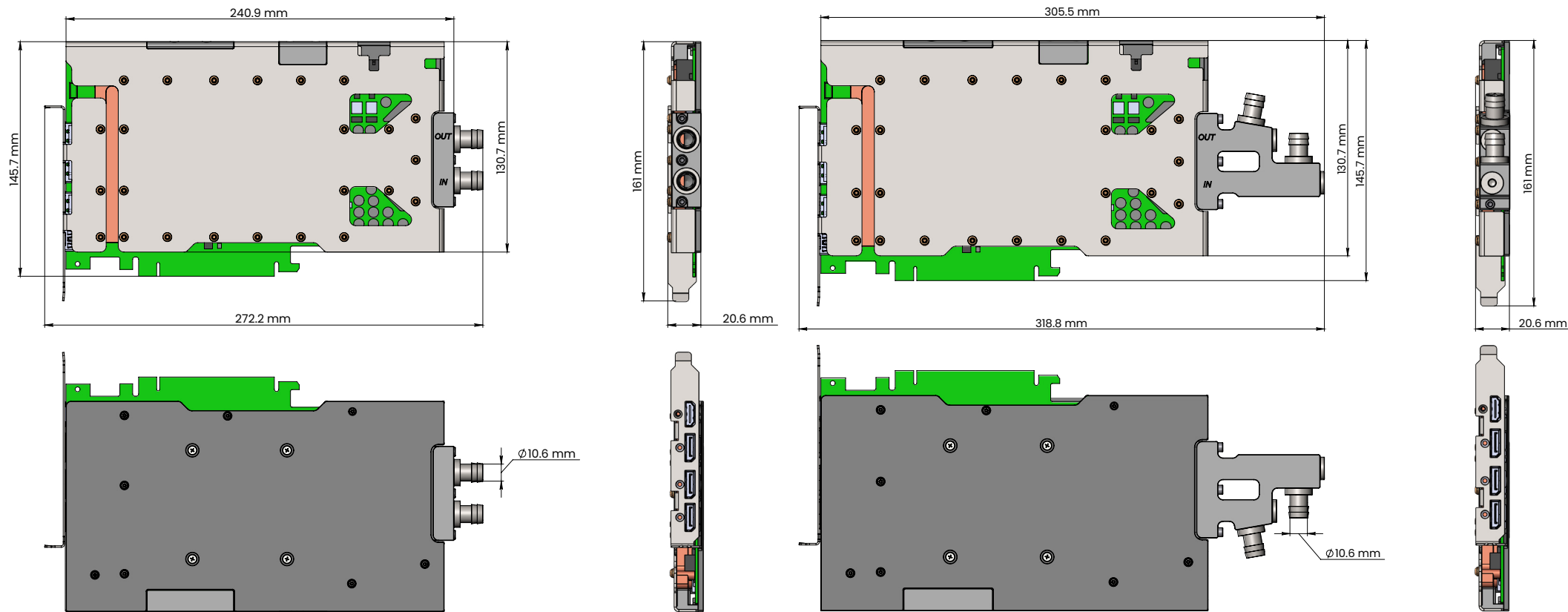
ID	Name	Release date
5650	Comino WCB GPU (Gigabyte 3090Ti) Core kit for ver. w/ backplate	Jun, 2022
5719	Comino WCB GPU (Gigabyte 3090Ti) Angular Adapter 2x G1/4" KIT	Jun, 2022

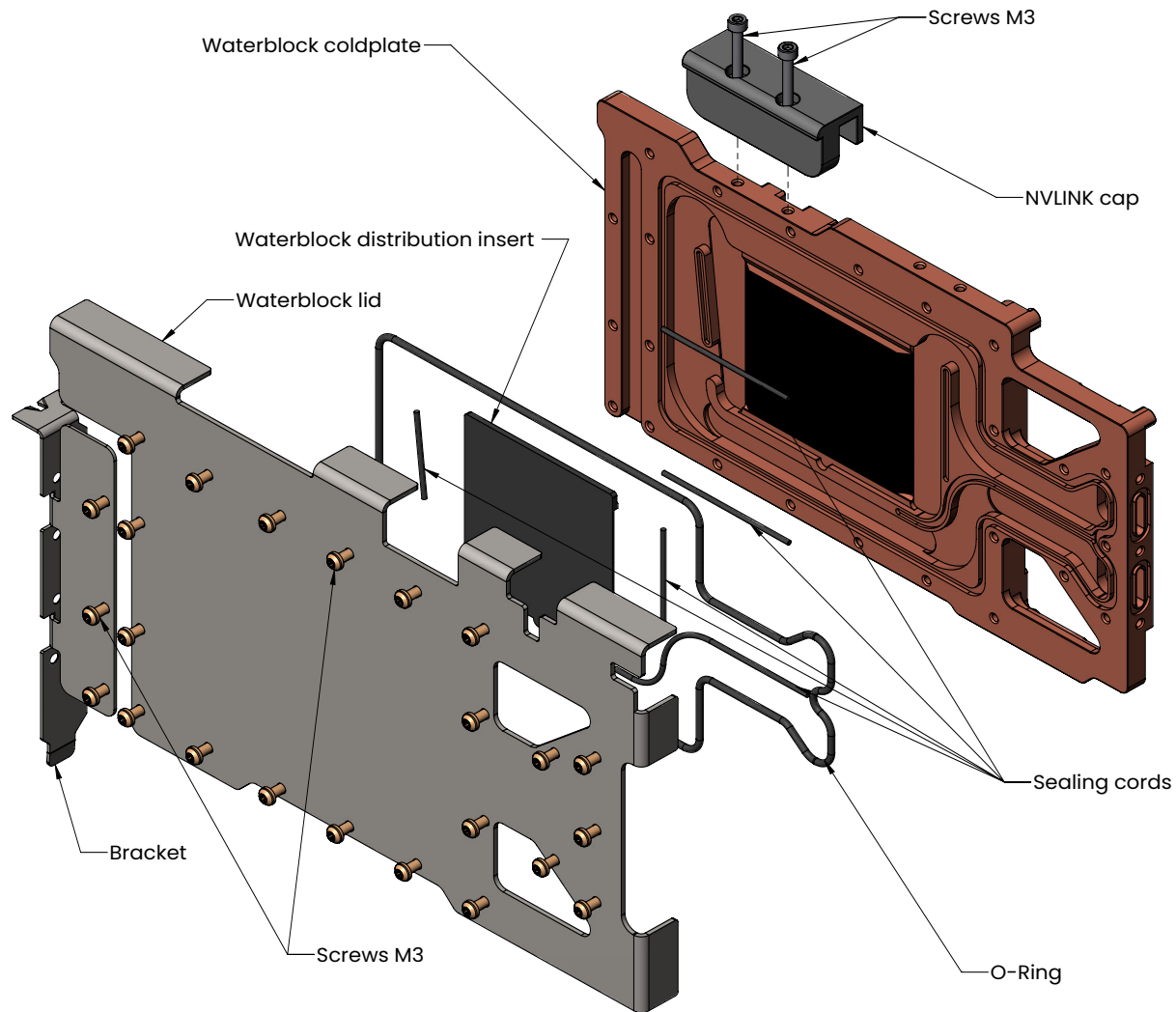


GPU Water Cooling Block Set

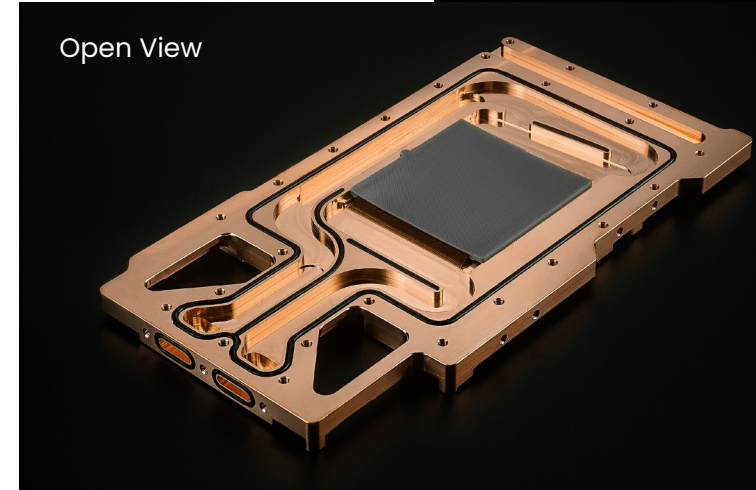
ID	Name		Release date
5685	Comino GPU WCB for Gigabyte GeForce RTX™ 3090 Ti, Cu-Steel, AI-Black Backplate, straight adapter 2x G1/4"		Jun, 2022
	5650	Comino WCB GPU (Gigabyte 3090Ti) Core kit for ver. w/ backplate	Jun, 2022
	5653	Comino WCB GPU (Gigabyte 3090Ti) Straight Adapter 2x G1/4" Kit	Jun, 2022
	5561	Comino WCB GPU (Gigabyte 3090Ti) Backplate kit (Black)	May, 2022

ID	Name		Release date
5686	Comino GPU WCB for Gigabyte GeForce RTX™ 3090 Ti, Cu-Steel, AI-Black Backplate, angular adapter 2x G1/4"		Jun, 2022
	5650	Comino WCB GPU (Gigabyte 3090Ti) Core kit for ver. w/ backplate	Jun, 2022
	5719	Comino WCB GPU (Gigabyte 3090Ti) Angular Adapter 2x G1/4" KIT	Jun, 2022
	5561	Comino WCB GPU (Gigabyte 3090Ti) Backplate kit (Black)	May, 2022

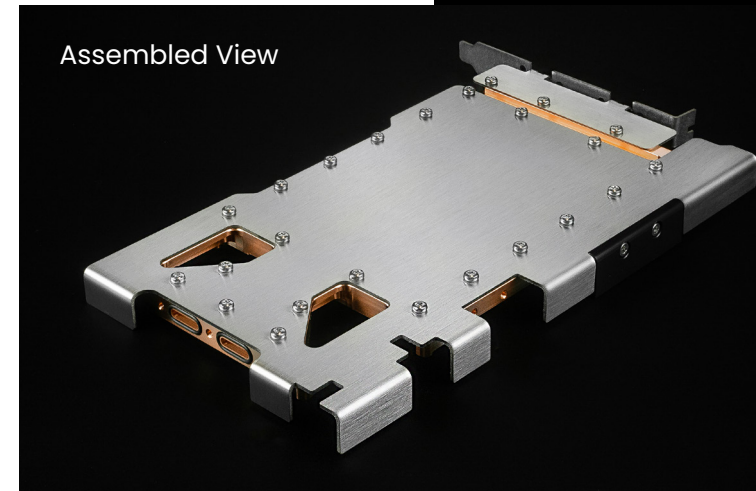




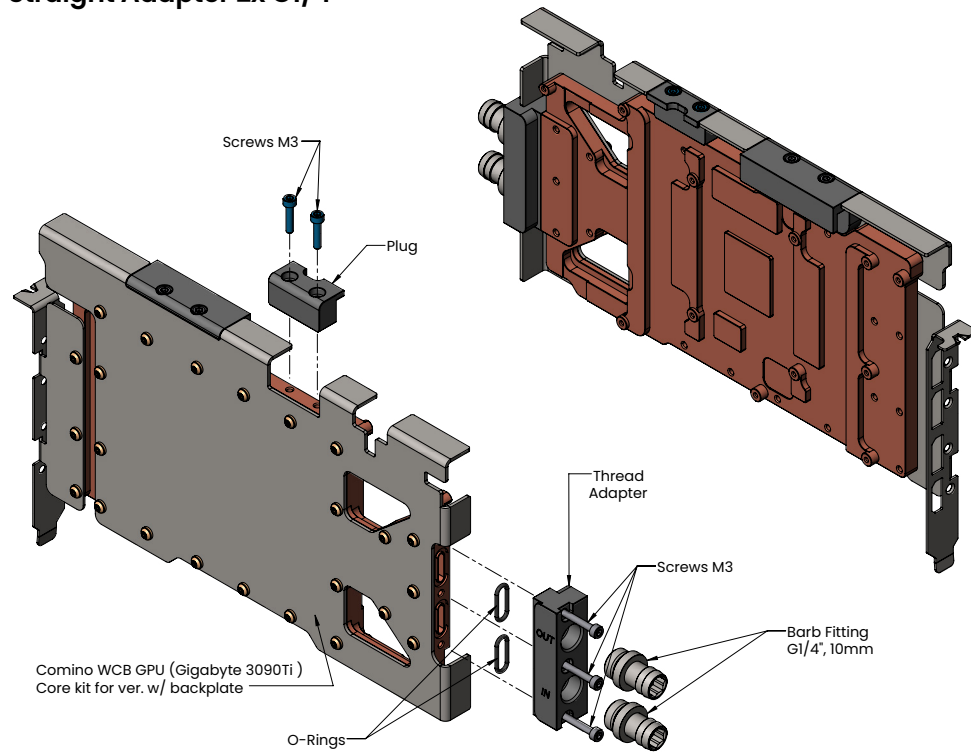
Open View



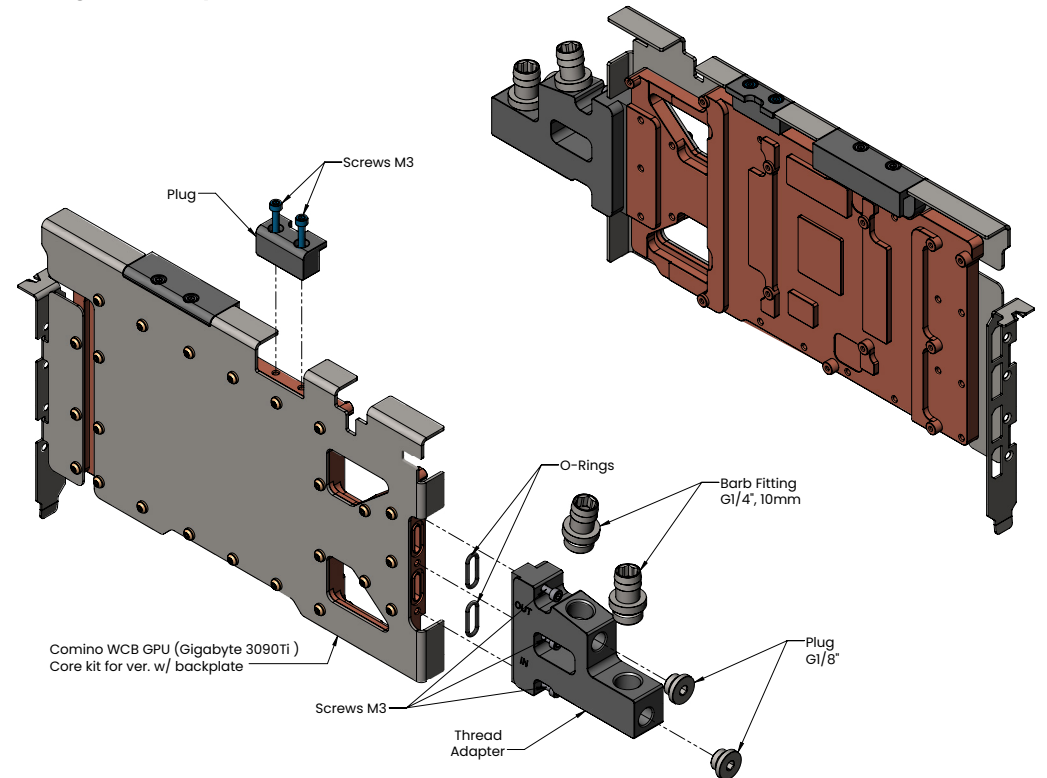
Assembled View



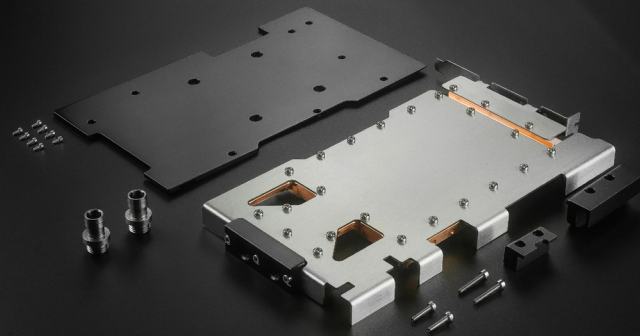
Comino GPU WCB for Gigabyte 3090 Ti, Cu-Steel,  
Straight Adapter 2x G1/4"



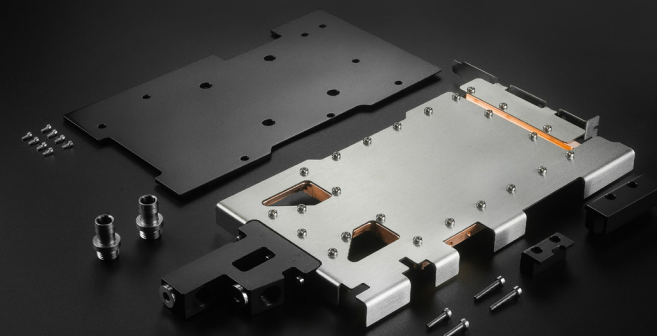
Comino GPU WCB for Gigabyte 3090 Ti, Cu-Steel,  
Angular Adapter 2x G1/4"



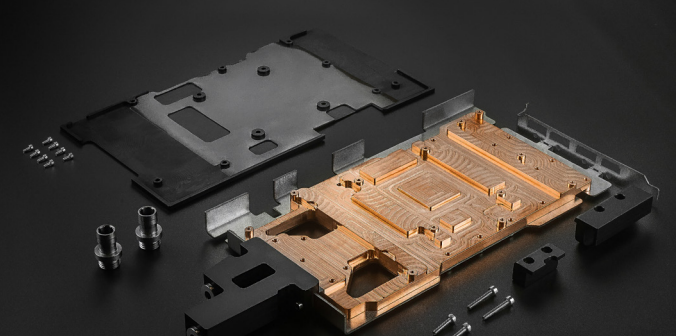
Front View



Front View

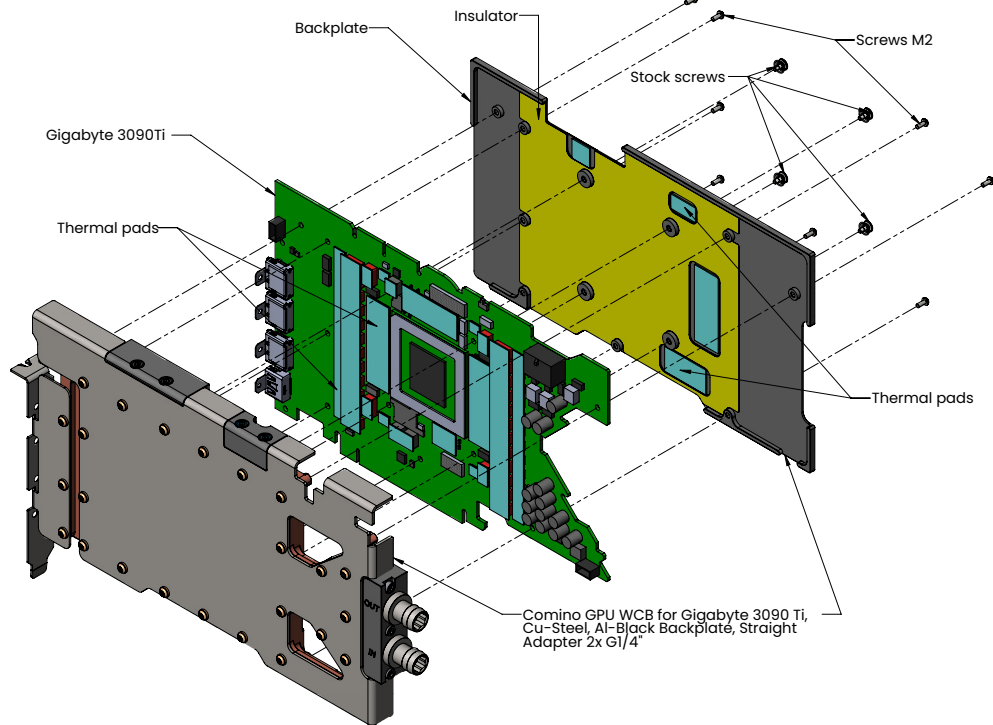


Back View

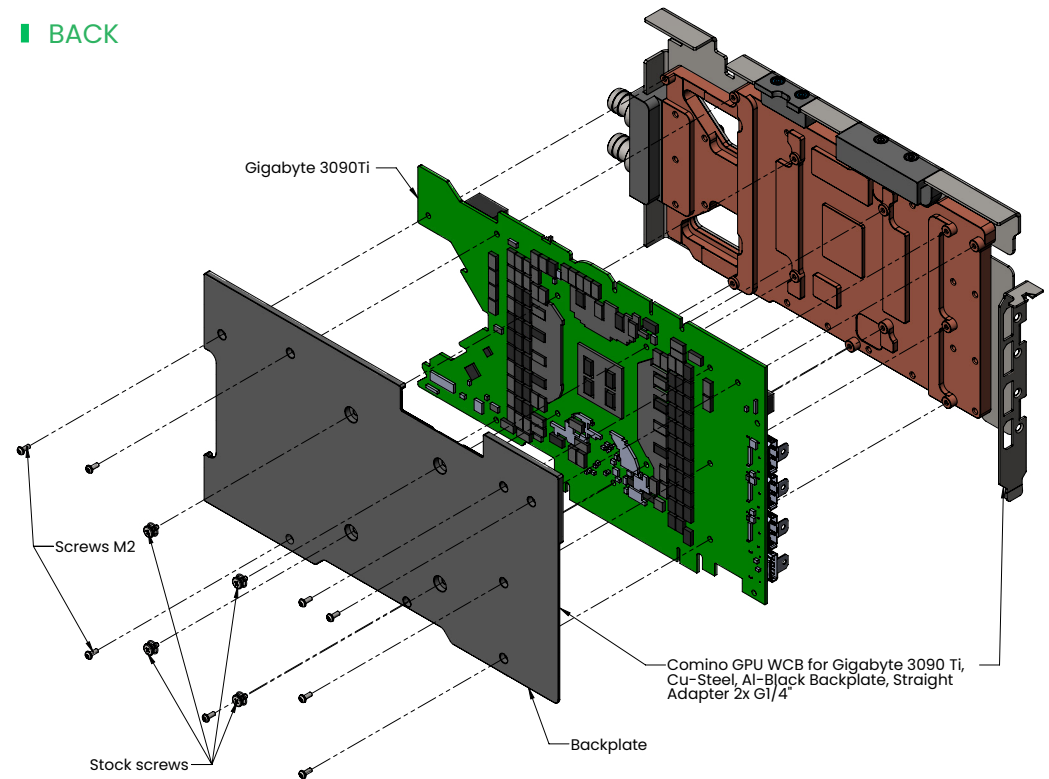


## Comino GPU WCB for Gigabyte 3090 Ti, Cu-Steel, Al-Black Backplate, Straight Adapter 2x G1/4"

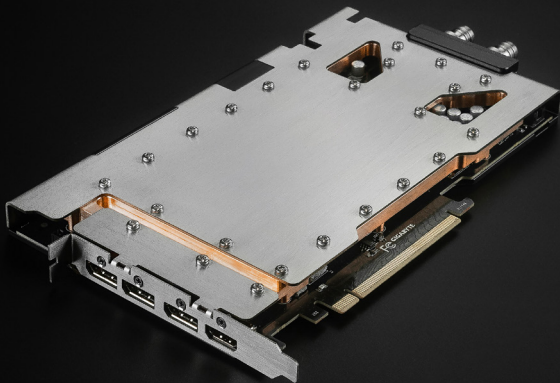
### FRONT



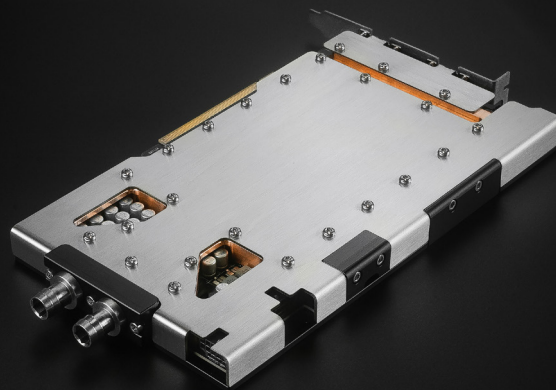
### BACK



Front View



Front View

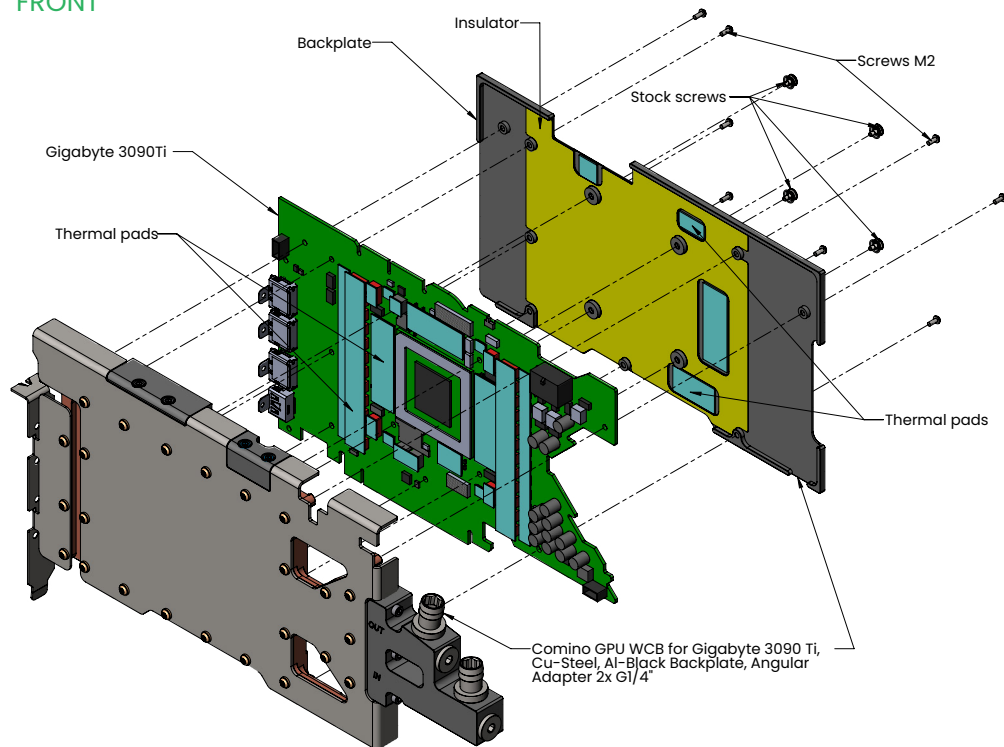


Back View

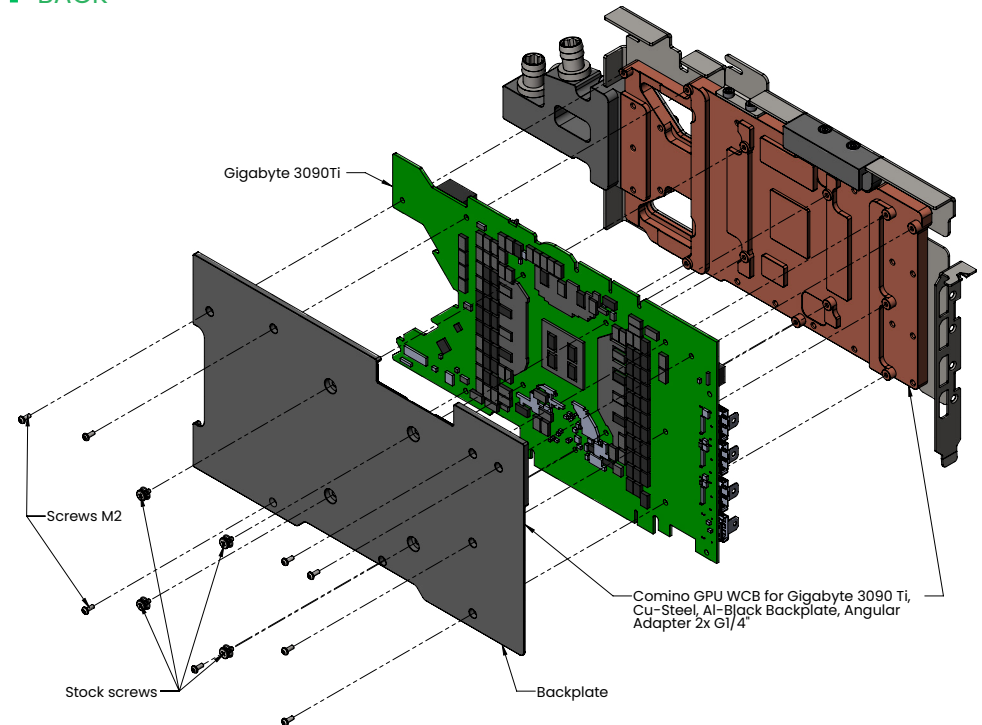


## Comino GPU WCB for Gigabyte 3090 Ti, Cu-Steel, AI-Black Backplate, Angular Adapter 2x G1/4"

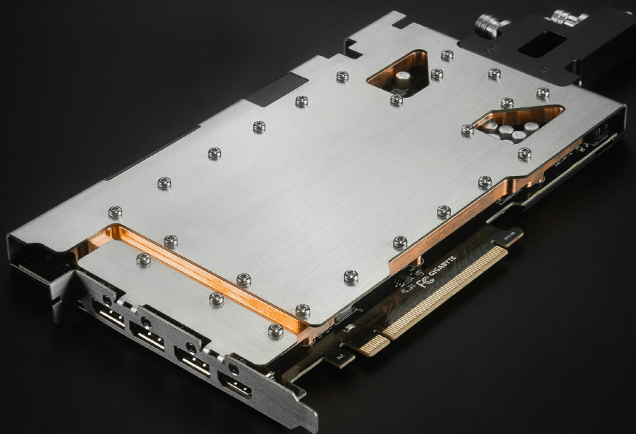
### FRONT



### BACK



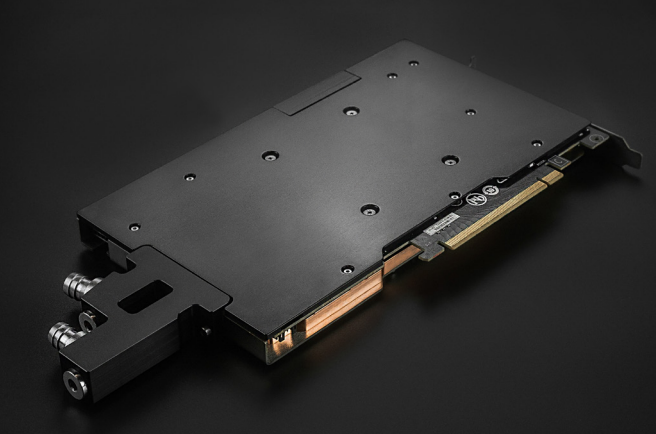
Front View

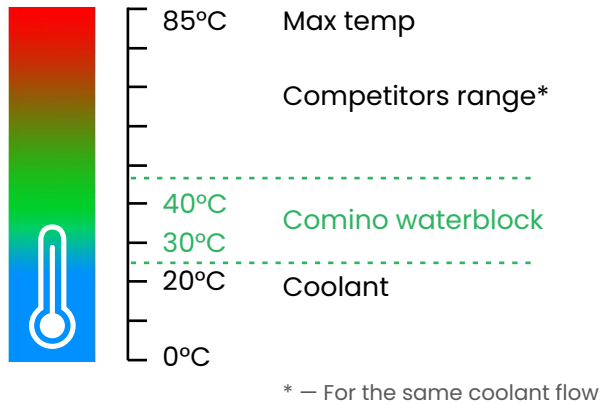


Front View



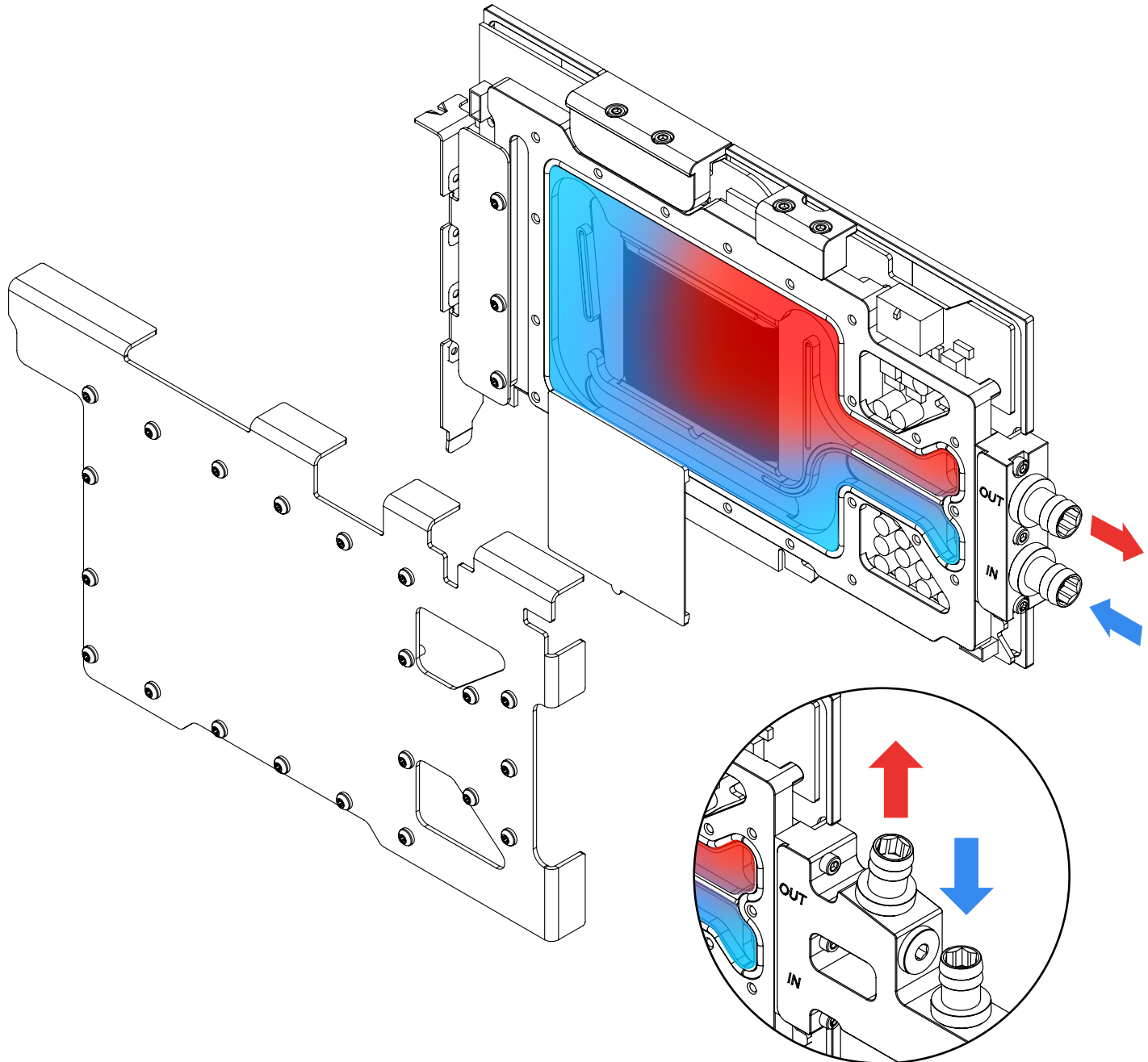
Back View





Comino waterblock technology ensures low  $\Delta T^\circ$  between the chip and inlet coolant temperatures.

- At coolant temperature of 20°C, the temperature of the chips with Comino waterblocks will be **30°–40°C**.
- The temperature of the chips with competitors waterblocks for the same coolant flow might rise up to 85°C.

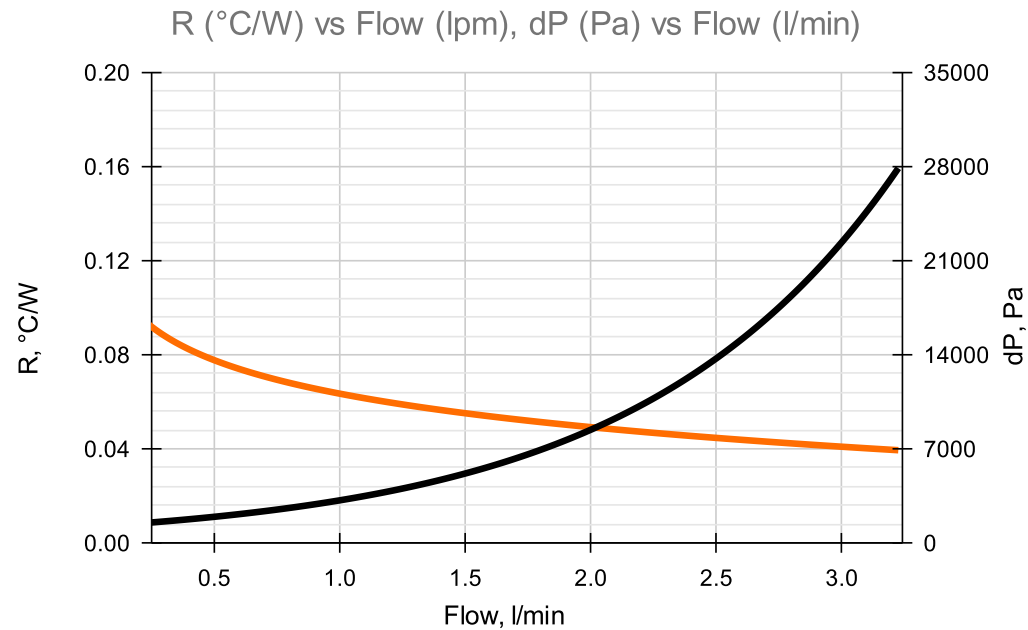


# THERMAL RESISTANCE (CPU-WATER INLET), TEMPERATURE RISE AND PRESSURE DROP VS FLOW RATE

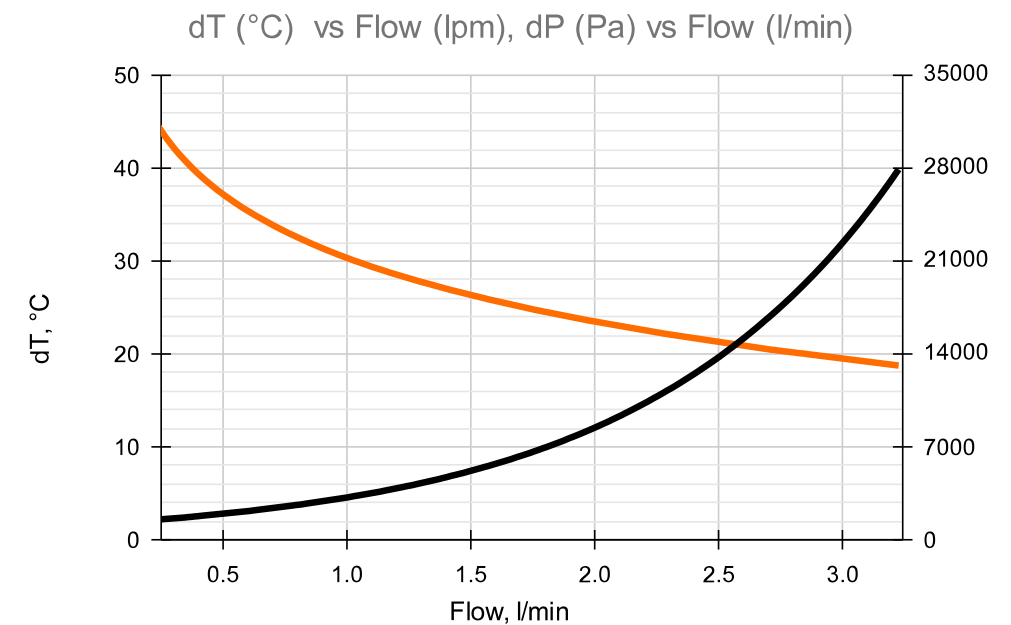
GPU WCB FOR GIGABYTE GEFORCE RTX™ 3090 TI, CU-STEEL

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Waterblock thermal resistance ( $^{\circ}\text{C}/\text{W}$ ) and coolant pressure drop (Pa) between inlet and outlet of waterblock vs coolant flow rate (l/min).



Temperature rise of GPU processor p-n junction relatively to coolant inlet temperature and coolant pressure drop (Pa) between inlet and outlet of waterblock vs coolant flow rate (l/min)

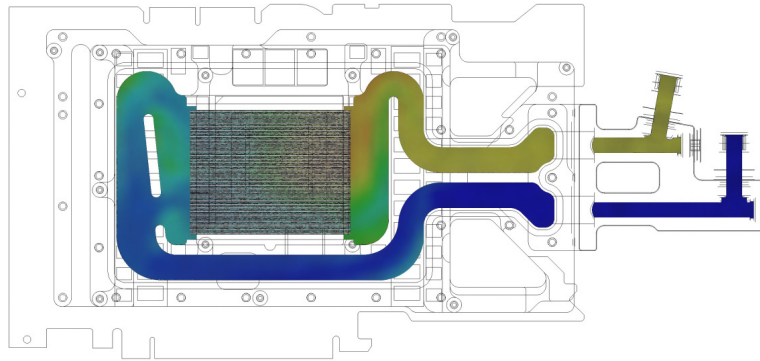
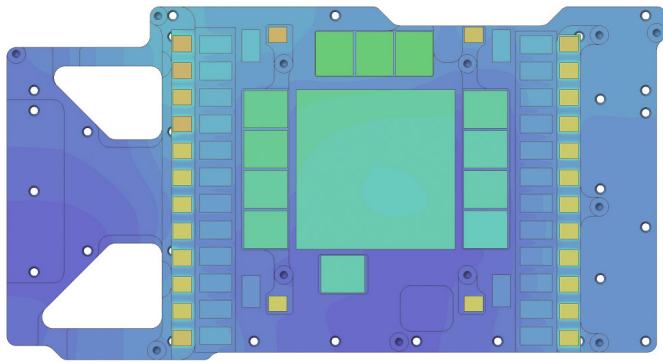


■ R,  $^{\circ}\text{C}/\text{W}$  - GIGABYTE RTX 3090 TI Gaming 24 GB GDDR6X / 1008 GB/s, 450W  
■ dP, Pa

# WE KNOW HOW TO BEAT THE HEAT

Comino provides RnD upon request, including product design with a series of complex thermodynamic calculations and a variety of stress tests supported by thermal analysis.

- Tailored liquid-cooling system and solution for your needs.
- OEM & ODM cooperation. Thermal design, prototyping, PoC, manufacturing, QA, supply.
- Creating a unique customization of hardware components and liquid-cooling systems.
- Design & Manufacturing of devices and cooling components for range of industry applications from scratch.



## ADDITIONAL INFORMATION

Check the compatibility and find the composition of the kit on the waterblock product page:

<https://faq.comino.com/en/waterblocks/main>



## CONTACTS

For more product information visit: [www.comino.com](http://www.comino.com)

Email us: [info@comino.com](mailto:info@comino.com)

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