

Assembly instructions HEATKILLER® GPU-X³ GTX 590



The unique design of the HEATKILLER® GPU-X³ guarantees outstanding performance. A cooling performance in the range of current high-end CPU coolers, a flat design as well as top quality materials distinguishes the new GPU-X³ series.

The bottom plate consists of pure copper. The cooling structure of the GPU is extremely fine-tuned and offers a higher performance than most CPU coolers. The thin base ensures even more performance.

	GPU-X³GTX 590 LT	GPU-X³GTX 590 Hole Edition
Dimensions (LxWxH)	252.0 x 117.0 x 9,5mm	252.0 x 117.0 x 11.5mm
Weight	990g	1190g
Material (bottom/cover)	CU / VA	CU / VA
Connections	G ¼ inch	G ¼ inch
Temperature-resistant up to	80°C	80°C
Compatible with	Nvidia GeForce GTX 590	Nvidia GeForce GTX 590

Note: You will find coloured assembly instructions in PDF format in the service area of our homepage. (www.watercool.de)

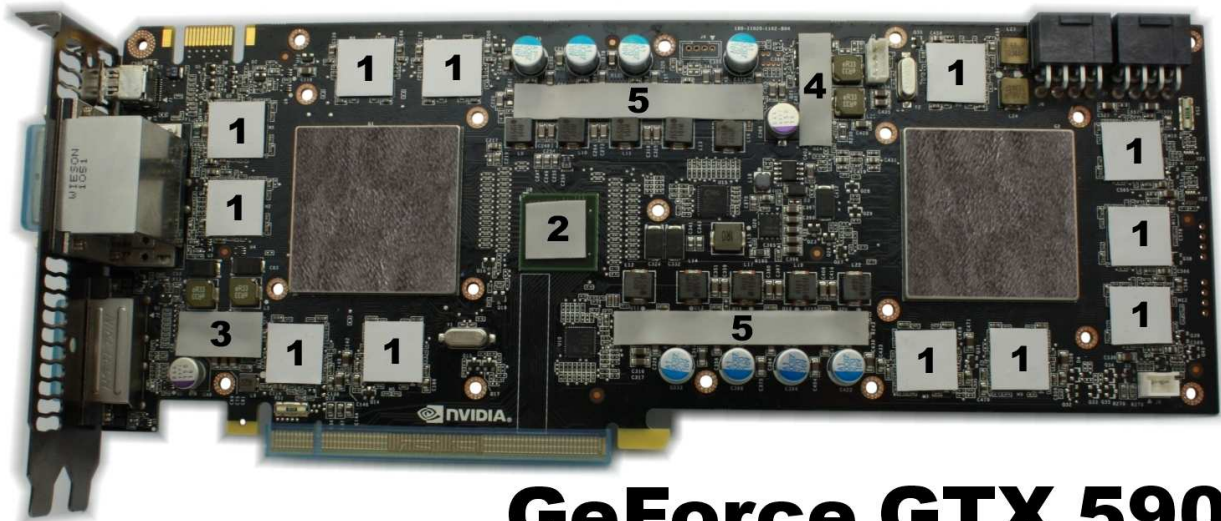
Attention: The Watercool company assumes no liability for any damages caused to hardware. If uncertain hire a specialist to carry out the modification, or use our modification service.

By disassembling the original cooler you may cause the manufacturer's warranty to become void, if uncertain contact the manufacturer of the Graphic card.

Preparation of the Graphic card

Remove the original heatsink and all remnants of the thermal pads.

Place the pre-cut pads on the graphics card as illustrated. Normally, both sides of the pads are covered with a protective film which must be removed before the installation.



GeForce GTX 590

Make sure to place the pads on the right components.

No. 1 – thermal pad 0.25mm height (color light gray, ca. 15x14)

No. 2 – thermal pad 0.75mm height (color gray, ca. 15x15)

No. 3 – thermal pad 0.50mm height (color purple, ca. 23x12)

No. 4 – thermal pad 0.50mm height (color purple, ca. 28x9)

No. 5 – thermal pad 0.50mm height (color purple, ca. 61x9)

Instead of the thermal pads, you can use a non-conductive thermal compound on the RAM components, which slightly increases the cooling capacity in this area.

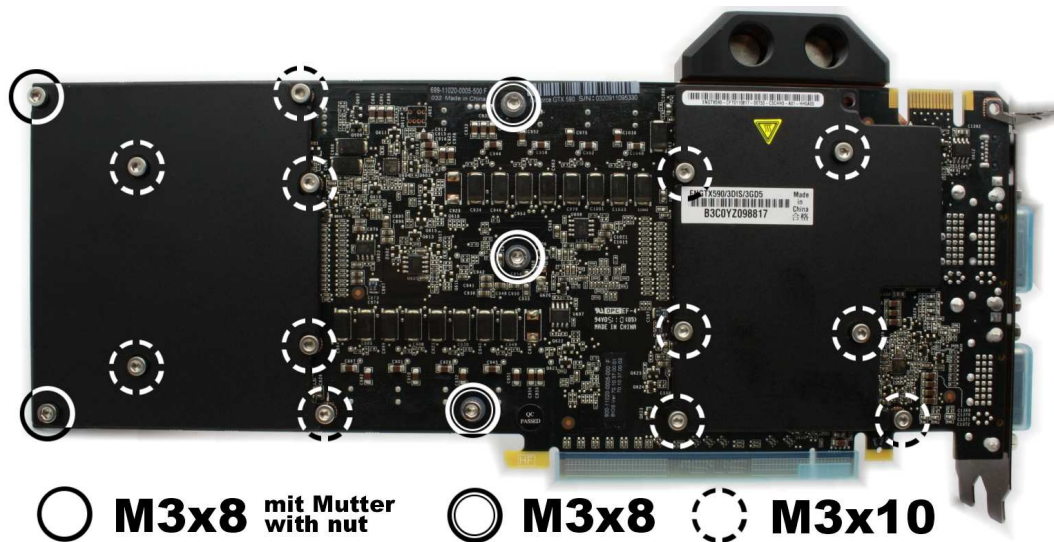
Apply the thermal compound to the GPU area evenly.

Assembly of the cooler

The board is placed on an even surface and the cooler carefully placed on top. You can insert a hexagonal screw M3x8 each on the outer end of the board from the bottom as positioning aid. Carefully lift the board together with the cooler in the same position and slightly screw in the three screws M3x8 (marked with a double circle) with washers. Only hold by the cooler anymore, turn the card around and put it down. Place the two backplates on top (keep using the pads) and slightly screw together with the screws (marked with an interrupted circle) **without** washers. Screw two screws M3x8 (marked with a single circle) with washers and nuts. Starting from the GPU sections, now evenly tighten the hexagonal screws (crosswise).

If you want to operate the cooler without the original backplates, only use hexagonal screws M3x8 with washers. These screws are not part of the delivery.

Remark: Test beforehand whether the screws fit through the borings in the backplates. If not, use a spiral drill (3.0) to widen the borings.



Installation and leak test

After the installation, a check and test run must be performed! The coolers are constructed on the reference design. Still, all sections of the board have to be checked for possible contact to the cooler. In addition, the contact of the GPU to the cooler must be checked along with the bending of the board. A slight bending of the board is normal.

A leak test should preferably be performed outside of the computer. If this is not possible, the hardware may not be turned on during the test run!

Once all of the cooler elements were tested, the computer can be put into operation. Check the temperature of the GPU immediately after the start!

General information

The HEATKILLER® GPU-X³ GTX 590 does not have a defined input and output. The cooling medium can stream in or out on both sides.

Under normal circumstances it is not necessary to open the cooler. If you still want to do so, please use a corresponding tool for Allen screws in industrial quality.

We recommend using demineralised or deionised water (distilled water) as cooling medium. To prevent the build-up of algae, use common citric acid. This reliably prevents the spread of algae.

The cooler is fully SLI compatible. To set up a dual or triple SLI system, we offer special dual and triple links which allow you to easily connect the coolers.

HEATKILLER® are products by

WATERCOOL[®]
quality cooling equipment

Please send your criticism, praise or suggestions to the following address:

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