



High Performance AM5 Heatspreader

High Performance Cooling Solutions – Made in Germany

Thermal Grizzly introduces the AM5 High Performance Heatspreader, an upgrade heatspreader for AMD's Ryzen 7000 processors. The heatspreader's diamond-milled precision surface made of nickel-plated copper offers 240 percent more surface area compared to the original heatspreader. As a result, the AM5 High Performance Heatspreader enables maximum heat dissipation with air and water coolers.

Maximum heat dissipation due to increased surface area

The AM5 High Performance Heatspreader replaces the Socket Actuation Mechanism (SAM) of the motherboard and the heatspreader of the Ryzen 7000 processor. Thus, the processor has to be delidded. This enables an optimal contact pressure of the CPU into the socket and massively increases the surface of the copper heatspreader. The contact surface is diamond milled and offers extremely low surface roughness for best contact to the heatsink. The AM5 High Performance heatspreader offers 240 percent more surface area than the standard heatspreader!

In practice, 10 °Celsius better temperatures can be achieved with the AM5 High Performance Heatspreader. In the test**, an AMD Ryzen 7900X (5.0 GHz, 1.3 vCore) is cooled with a 280 mm AiO. With the stock heatspreader, the maximum temperatures were about 90 °Celsius. With the AM5 High Performance heatspreader, the temperatures were below 80 °C. When the upgrade heatspreader was used in combination with the Thermal Grizzly AM5 Adapter & Offset Mounting Kit, the processor could be cooled down an additional 6 °C.

**It should be noted that the temperature improvements achieved depend on several factors. Besides the quality of the individual processors ("Silicon Lottery"), test results are influenced by the room temperature and the cooling used, among other things. For an AiO, for example, the cooling performance depends on factors like the pump speed as well as the fans used. The values given are guidelines that can be higher or lower in individual cases.



Short information

- Replaces SAM and heatspreader
- 240% larger surface area (22 cm²)
- Made of nickel-plated copper
- Precision diamond milled surface
- Compatible with air and water coolers
- Only for delidded CPUs!

High compatibility in all areas

Another advantage of the AM5 High Performance heatspreader is its high compatibility. The upgrade heatspreader is compatible with popular AM5 mainboards and all air and water coolers. Compared to the AMD stock heatspreader, the overall height is 1.7 mm lower. This improves heat transfer and still allows mounting to almost all normal air and water coolers. For mono blocks, mounting height and heat transfer pads may need to be adjusted. If AiO or water coolers are limited in mounting height, we recommend the Thermal Grizzly AM5 Adapter & Offset Mounting Kit.

The nickel-plated surface of the AM5 High Performance Heatspreader is also compatible with traditional thermal pastes and gallium-based liquid metals. The nickel forms a barrier layer between the liquid metal and the copper cooler, preventing liquid metal from diffusing into the copper and minimizing alloying. This usually eliminates the need for multiple applications of liquid metal.

The AM5 High Performance Heatspreader is also compatible with Thermal Grizzly's AM5 backplates, which may be needed depending on the cooler. The Ryzen 7000 Delid-Die-Mate is recommended for delidding the processor.

For the most maintenance-free system possible, a KryoSHEET graphene thermal pad can be used as a thermal interface between the CPU and the AM5 High Performance Heatspreader. Since KryoSHEET pads are electrically conductive, a cover is included to protect the electronic components on the CPU package.

Technical data

Unit:	Value/Description:
Material:	copper, nickel plated
Color:	silver
Typical application:	Upgrade heatspreader with increased surface area
Height above CPU die:	2.0 mm
Length:	70 mm
Width:	53 mm
Total height:	6.0 mm
Package size:	10,5x9,5x2 cm
*Gross weight:	136g
*Net weight:	103g
EAN-Code:	4260711990861
Item number:	TG-HPHS-AM5
PU:	14 Pcs.

*Net weight is the total weight of an article excluding the weight of packaging and accessories. The gross weight refers to the total weight of the product including accessories and packaging. Slight weight deviations are possible due to production factors.

Scope of Delivery

- 1x AM5 High Performance Heatspreader
- 1x Insulation sheet
- 4x Pan-head screws UNC thread
- 1x Hexagon socket wrench
- 1x Angle wrench Torx

Where it is worthwhile?

With its superior heat dissipation capabilities, the AM5 High Performance Heatspreader is recommended for many applications:

- Gaming PCs with AiO or custom water cooling.
- Desktop workstations with high CPU load
- Extreme overclocking with dry ice or liquid nitrogen
- Air-cooled mini-ITX systems with small top-blower coolers
- Silent PCs with large tower coolers and low speed fans

Quality without compromise: Made in Germany

The AM5 High Performance Heatspreader is manufactured to the highest quality standards at our production site in Germany. The entire production chain is continuously monitored by our expertly trained personnel. Particular attention is paid to the diamond-milled precision surface, which is specially protected from contamination during the production chain.

Video links

der8auer YT-Channel:

https://www.youtube.com/watch?v=8wDqTSJ_jRA

der8auer EN YT-Channel:

<https://www.youtube.com/watch?v=qKFYawQOKJo>

Trademark Information

Thermal Grizzly is a registered trademark.

Please note

The data in this technical data sheet are based on our current knowledge and experience. Due to the large amount of possible factors, this should not be construed as to release the users from doing their own tests and screening. No legally binding assurance of specific properties or applicability for a concrete purpose should be derived from these data. Please consider contacting us for further detail. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.