

AM5 Mycro Direct-Die

High Performance Cooling Solutions – Made in Germany

The AM5 Mycro Direct-Die from Thermal Grizzly is a direct-die water cooler for AMD's Ryzen 7000 processors. As the name already suggests, the water cooler lies directly on the chiplets of the delidded Ryzen CPU. This makes the path from the CPU die to the water circuit much shorter. Micro fins on the top of the nickel-plated copper cooler are used for optimal transfer of waste heat. The AM5 Mycro Direct-Die is integrated into the circuit of a custom water cooling system via G1/4-inch connections.

Nickel-plated copper radiator with microfin structure

The AM5 Mycro Direct-Die replaces the motherboard's Socket Actuation Mechanism (SAM) and the heatspreader of the Ryzen 7000 processor. Thus, the processor has to be delidded. On the significantly larger surface of the nickel-plated copper heatspreader compared to the stock heatspreader, there are optimized microfins that dissipate the waste heat extremely effectively into the water circuit of the custom cooling loop. At the same time, optimal contact pressure of the CPU into the socket is enabled. The lid is made of CNC-milled polyoxymethylene (POM) and is equipped with one inlet and outlet each in the form of G1/4-inch threads.



Technical data

Unit:	Value/Description:
Material:	copper (nickel plated), POM
Color:	silver, black
Typical application:	Direct Die water cooler
Connectors:	2x G1/4 inch
Length:	70 mm
Width:	53 mm
Total height:	27 mm
Package size:	10,5x9,5x4 cm
*Gross weight:	277g
*Net weight:	236g
EAN-Code:	4260711990892
Item number:	TG-MY-DD-AM5
PU:	7 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.



Short information

- Water cooler for direct die mounting
- Microfin cooler made of nickel-plated copper
- Replaces SAM and heatspreader
- CNC machined POM cover
- G1/4 inch connections
- Only for delidded CPUs!

Maximum cooling performance

In tests**, the AM5 Mycro Direct die in combination with Conductionaut Extreme could establish itself as the high-end solution with the best temperatures. A Ryzen 7900X (5.0 GHz, 1.3 vCore) was cooled down to 64 °Celsius under load during testing. Compared to an everyday solution in the form of a 280 mm AiO, temperatures could be lowered by up to 26 °Celsius in comparable test sections. A comparable water cooler reached via Direct-Die temperatures that were 3 °Celsius higher than the AM5 Mycro Direct-Die.

The AM5 Mycro Direct-Die's nickel-plated surface is 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. As a result, multiple applications of liquid metal are generally not necessary.

For the lowest maintenance system possible, a KryoSHEET graphene thermal pad can be used as the thermal interface between the CPU and the AM5 Mycro Direct Die. Since KryoSHEET pads are electrically conductive, a cover is included to protect the electronic components on the CPU package. Temperatures below 70 °Celsius were measured with a KryoSHEET in the tests**.

**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.

Quality without compromise: Made in Germany

The AM5 Mycro Direct die is manufactured and assembled to the highest quality standards at our production site in Germany. During this process, our expertly trained personnel continuously monitor the entire production chain. After the lid is mounted on the base plate, the AM5 Mycro Direct-Die is tested for tightness (0.6 bar).

Scope of Delivery

- 1x AM5 Mycro Direct Die
- 1x insulation sheet
- 1x test certificate
- 4x pan-head screws UNC thread
- 1x hexagon socket wrench
- 1x angle wrench Torx

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.