

AM5 Mycro Direct-Die ^{RGB}

High Performance Cooling Solutions – Made in Germany

The AM5 Mycro Direct-Die RGB from Thermal Grizzly is a direct-die water cooler for AMD's Ryzen 7000 processors. As the name suggests, the water cooler lies directly on the chiplets of the delidded CPU. Micro fins on the top of the nickel-plated copper cooler are used for optimal transfer of waste heat. Via G1/4-inch connections, the AM5 Mycro Direct-Die RGB is integrated into the circuit of a custom water cooling system. A visually sophisticated appearance is provided by the anodized aluminum cover. Addressable RGB LEDs under the cover visually round off the high-performance water cooler.

Short information

- Water cooler for direct die mounting
- Microfin cooler made of nickel-plated copper
- Replaces SAM and heatspreader
- Anodized aluminum cover
- Addressable RGB lighting
- G1/4 inch connections
- Only for delidded CPUs!

Nickel-plated copper radiator with microfin structure

The AM5 Mycro Direct-Die RGB replaces both 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. At the same time, an optimal contact pressure of the CPU into the socket is enabled.



Addressable RGB lighting & stylish cover

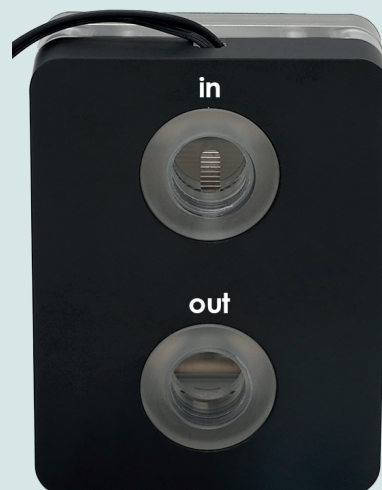
On top of the copper cooler, the Mycro Direct-Die RGB has a block of acrylic glass in which the G1/4-inch connections are located. The acrylic glass is subjected to an annealing process after milling. This frees the acrylic glass from internal surface stresses. This ensures that no stress cracks form in the acrylic glass even after a long period of use, as can happen with tempered acrylic glass.

The RGB LED lighting is located under the anodized aluminum cover and consists of 13 addressable LEDs. The cable plugs into the 3-pin ARGB header (+5V/-DATA/GND) of the motherboard. The cover of the cooler is magnetically attached to the acrylic block and can be oriented so that the RGB connection cable is either at the top or bottom. The black anodized aluminum cover is visually accentuated by metallic chamfers on the edges.

Technical data

Unit:	Value/Description:
Material:	Copper (nickel plated) Acrylic (annealed) Aluminum (anodized) silver, black
Color:	silver, black
Typical application:	Direct Die water cooler
Number of LEDs:	13
Connection RGB:	3-pin ARGB header (+5V/DATA/GND)
Connectors:	2x G1/4 inch
Length:	70 mm
Width:	53 mm
Total height:	27 mm
Package size:	10,5x9,5x4 cm
*Gross weight:	288g
*Net weight:	247g
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.



Maximum cooling performance

In tests**, the AM5 Mycro Direct die RGB in combination with Conductonaut 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 RGB'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 RGB. 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.