

AMD Mycro Direct-Die Pro RGB V1

High Performance Cooling Solutions – Made in Germany

The AM5 Mycro Direct-Die Pro RGB V1 is a water cooler optimized for the AMD AM5 platform. The copper base plate features more cooling fins and reduced flow resistance compared to the standard version of the Mycro cooler. The cooler sits directly on the chip of a delidded AMD CPU, ensuring that the processor's heat has the shortest possible path to the water loop. An up-to-date list of all verified compatible processors is available online.

Nickel-Plated Copper Cooler with Optimized Hybrid Microfin Structure

One of the key changes compared to the standard Mycro water cooler is the microfins in the copper base plate. The cooler now uses a hybrid structure with two different types of microfins. Fourteen shallow and wide fins are positioned over the I/O die, where less heat is generated. In the high-heat area, there are 29 deeper fins with narrow ridges, resulting in narrow and tall microfins. The slot width is 0.2 millimeters each. The Pro version is also generally thinner, and the cooler's design is optimized for better flow.

The nickel coating on the copper base plate allows the AM5 Mycro Direct-Die Pro RGB V1 to be used with liquid metal between the CPU die and the cooler. Liquid metal provides the best possible heat transfer from the silicon die to the copper cooler. Nickel plating is necessary to prevent the gallium-based liquid metal from diffusing into the copper. The nickel barrier ensures that reapplying the liquid metal is generally not necessary.



Short information

- Water cooler for direct-die mounting
- Microfin cooler made of nickel-plated copper
- Replaces SAM and heat spreader
- Acrylic and aluminum cover
- G1/4-inch fittings
- CPU compatibility list available online
- Only for delidded CPUs! Warning: Voids warranty!

As a direct-die water cooler, the AM5 Mycro Direct-Die Pro RGB V1 also serves as a contact frame, replacing the Socket Actuation Mechanism (SAM) of the motherboard. This ensures that the processor is pressed into the motherboard socket with optimal pressure.

Scope of Delivery

- 1x AM5 Mycro Direct-Die Pro RGB V1
- 1x Insulation sheet
- 4x Lens head screws UNC thread
- 1x Hex key
- 1x Torx key

Tempered Acrylic Glass, RGB Lighting, and Aluminum Cover

The design of the AM5 Mycro Direct-Die Pro RGB V1 includes an anodized aluminum cover with RGB LED lighting underneath. These LEDs illuminate the tempered acrylic glass and can be controlled via a 3-pin ARGB header (+5V/DATA/GND) from the motherboard. The AM5 Mycro Direct-Die Pro RGB V1 is connected to the custom water-cooling loop via an inlet and outlet with G1/4-inch threads.

The acrylic glass undergoes a tempering process after milling, which relieves internal stresses in the material. This ensures that no stress cracks develop in the acrylic glass over long periods of use, as can happen with untreated acrylic glass.

Technical data

Unit:	Value/Description:
Material:	Copper (nickel plated) Acrylic (annealed) Aluminum (anodized)
Color:	silver, black
Typical application:	Direct Die water cooler
Connectors:	2x G1/4 inch
Length:	70 mm
Width:	53 mm
Total height:	25 mm
Package size:	10,5x9,5x4 cm
*Gross weight:	276g
*Net weight:	225g
EAN-Code:	4260711991080
Item number:	TG-MY-DD-P-RGB-AMD-V1
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.

Pro Version with Up to 9°C Better Temperatures

The optimizations in the AM5 Mycro Direct-Die Pro RGB V1 allow the cooler to bring an AMD Ryzen 9 7900X (5.4GHz, 1.3V Vcore) down to 61.4 degrees Celsius, while the non-Pro Mycro cools the CPU to 70.5°C.** The internal structure improvements in the AM5 Mycro Direct-Die Pro RGB V1 result in a temperature improvement of about 9 Kelvin compared to the non-Pro version.

The custom loop of the test system consists of a Watercool MO-RA3, including four 200mm fans from Noctua. A Keyence FD-X flow sensor was used, offering the advantage of not creating any resistance in the water loop. The Xylem Lowara D5 pump speed was around 3,400 revolutions per minute. Conductionaut Extreme liquid metal was used on the die of the delidded processor.

Please note that delidding the processor is done at your own risk and voids the warranty!

**It should be noted that the temperature improvements achieved depend on several factors. Besides the quality of individual processors ("Silicon Lottery"), test results are influenced by room temperature and the cooling used, among other things. For example, in a custom water-cooling setup, cooling performance is dependent on factors such as pump speed, fans, and radiators used. The values provided are indicative and may vary higher or lower in individual cases.

Quality without compromise: Made in Germany

The AMD Mycro Direct Die Pro RGB V1 is manufactured to the highest quality standards at our production site in Germany. The entire production chain is continuously monitored by our expertly trained staff. Particular attention is paid to the microfins, which are specially protected from contamination during the production chain.

All AMD Mycro Direct Die Pro RGB V1 are also subjected to a compressed air test (600 mbar) as part of quality control after assembly. Each water cooler is provided with a serial number and a corresponding pressure test report is included.

Warning: Removing the heat spreader ("delidding") of a processor is done at your own risk! Delidding the CPU voids the manufacturer's warranty! Damage caused by delidding the CPU is not covered by the manufacturer's warranty!

Removing the Socket Actuation Mechanism (SAM) from the motherboard may void the motherboard manufacturer's warranty!

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.