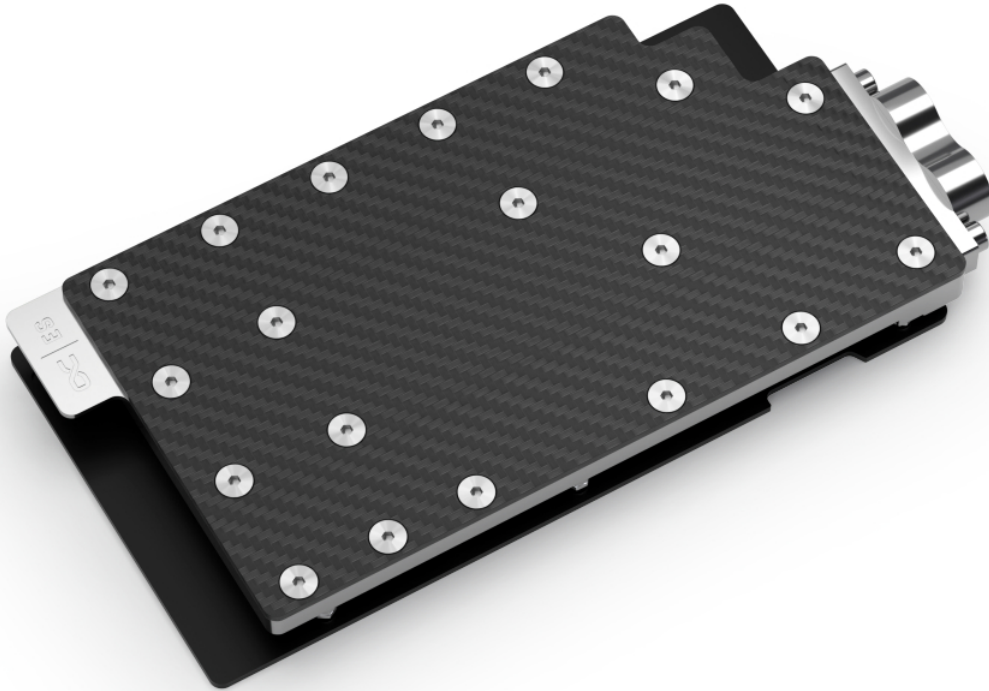


Alphacool ES AI PRO R9700 1-Slot-Design

Alphacool article number: 5100335



Quick Info

The Alphacool ES 1-Slot GPU water block for the AMD Radeon AI PRO R9700 has been specially developed for professional use in performance-optimized server and workstation environments.

- 1-Slot Design Cooler
- Fullcover water cooler
- Chrome-plated copper bottom
- For high performance in server and workstation systems

Compatibility

- ASRock AMD Radeon™ AI PRO R9700 Creator 32GB
- Asus Turbo Radeon™ AI Pro R9700
- PowerColor Radeon™ AI PRO R9700
- Sapphire AMD RADEON™ AI PRO R9700 32GB

Scope of delivery

1x Alphacool ES AI PRO R9700 1-Slot-Design GPU Cooler	1x Thermal Grease
1x Backplate	1x Putty tool
14x M2x10mm Screw	1x PCI Bracket
4x 39.5x15x1mm Pad	1x M3 Nut
2x 31x15x1mm Pad	1x M3x4mm Screw
1x 55x8x1mm Pad	1x M2 Nut
1x 63.5x8x1mm Pad	1x M2x4mm Screw
2x 8x8x1mm Pad	1x 30x30x2mm Pad

Technical data

Dimensions (L x W x H) (in mm)	203.78 x 96.00 x 21.10
Slot size	1
Material cooler	Chrome-plated copper (Cu-HCP)
Material Backplate	Aluminium (AlMg0,7Si)
Material terminal	Brass (CuZn39Pb3)
Threads	2x G 1/4
Material connection thread	Brass (CuZn39Pb3)
Maximum torque G1/4 thread (in Nm)	1.00
Maximum torque M2 thread (in Nm)	0.13
Maximum torque M3 thread (in Nm)	0.48
Maximum torque M4 thread (in Nm)	1.12
Maximum operating temperature (in °C)	60
Minimum operating temperature (in °C)	-20
Maximum tested pressure (in bar)	4.00
Recommended working pressure (in bar)	0.00 - 2.00
Cooling technology	Jet engine

Technical data thermalpads

Thermal conductivity of thermal pads (in W/mK)	7
Thermal pads Hardness ASTM 2240	35 Shore 00

Technical data Thermal paste

Volatilization Rate (24H@200°C)%	less than 0.5
Density (g/cc)	3.2 (Test method ASTM D792)
Viscosity (mPa.s)	150~200*10 ³ (Test method ASTM D2196)
Continuous Using Temperature (°C)	-40°C to 120°C
Breakdown Voltage (V/mil)	250 (Test method ASTM D149)
Thermal Impedance (°C in 2/W)	0.1 +/- 0.01 (Test method ASTM D5470)
Max. working pressure (psi)	40
Quantity	1g
Color	gray

Download links

Manual	5100335_Alphacool_ES_AI_PRO_R9700_1-Slot-Design_Manual.pdf
Product pictures	5100335_Alphacool_ES_AI_PRO_R9700_1-Slot-Design_pics.zip
EU-DoC / CE / RoHS	Alphacool_EuDoc_CE_RoHS_5100335.pdf

Packaging dimensions per unit

L x W x H	355 x 175 x 45 mm
Weight	1142 g

Other data

Certificates	CE, FC, RoHS
EAN	4070201003359
Customs code	84195080900
Guarantee	3 years

Article text

The Alphacool ES 1-Slot GPU water block for the AMD Radeon AI PRO R9700 has been specially developed for professional use in performance-optimized server and workstation environments. With its compact 1-slot design and well-planned port positioning, it meets the highest requirements for cooling performance, reliability, and ease of installation, especially where space is limited.

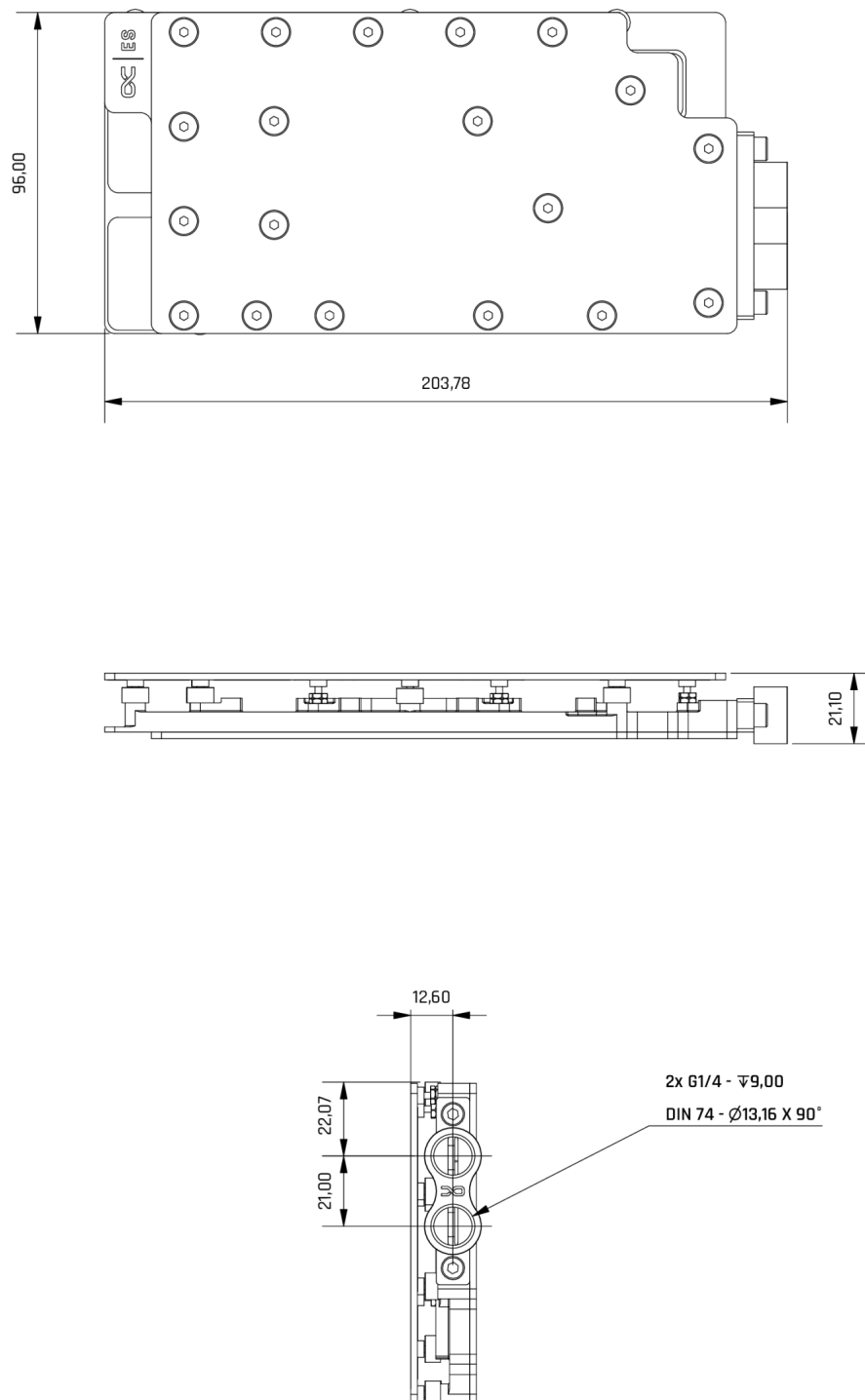
The top of the cooler is made of lightweight, durable carbon. This significantly reduces the weight of the cooler compared to conventional solutions. At the same time, the matte carbon finish provides a subtle, high-quality look that is both functional and elegant. The cooling block itself is made entirely of chrome-plated copper. The chrome plating is significantly harder and more resistant than conventional nickel plating and provides reliable protection against corrosion, scratches, and mechanical impact, making it ideal for long-term 24/7 operation.

The inlet and outlet ports are positioned on the rear side of the cooler to save space. This port layout makes tubing and integration into existing cooling loops easier, even in very compact server or workstation cases. Thanks to an optimized cooling channel structure, heat is dissipated particularly efficiently from the GPU, VRAM, and voltage regulators. Targeted channel routing inside the cooler ensures an even flow of water across all relevant components.

The solid copper base ensures optimal heat absorption and transfer. The robust chrome plating prevents peeling or damage under thermal stress.

The Alphacool ES 1-Slot GPU Water Block for the AMD Radeon AI PRO R9700 is the ideal solution for workstation and enterprise applications where performance, reliability, and efficient use of space are key priorities.

Figure (1)

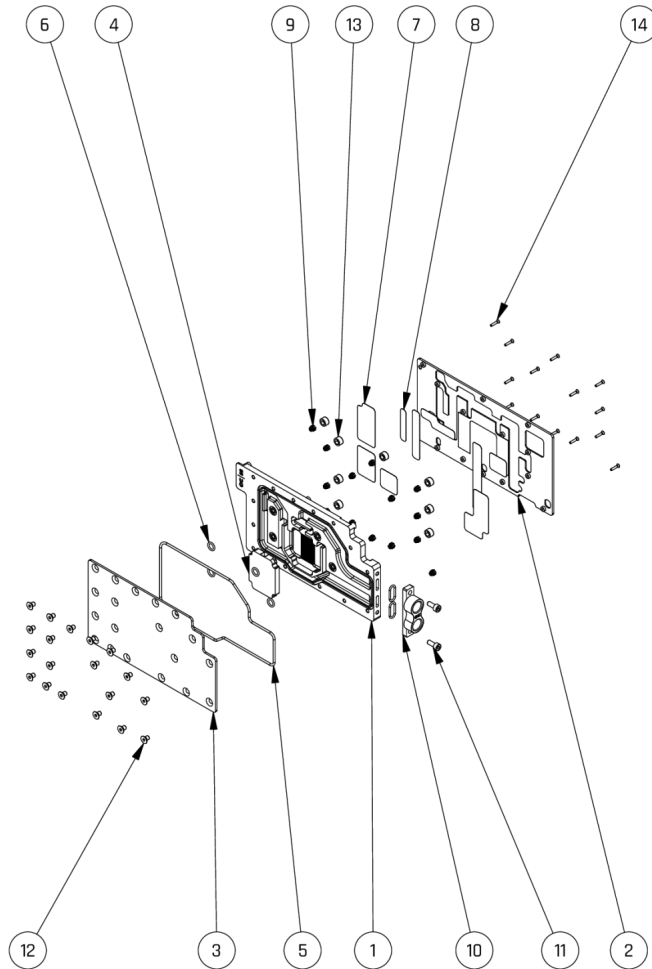


General tolerance: $\pm 0,25\text{mm}$
Dimension in millimeter

Figure [2]

Mechanical properties:

Minimum temperature t min = -20°C	Working pressure p = 0,0 - 2,0Bar	Maximum torque of M max = M2X0,4 = 0,13Nm
Working temperature t = 20°C	Maximum pressure p max = 4,0Bar	M thread
Maximum temperature t max = 60°C	Maximum torque of G thread M max = G1/4 = 1,0Nm	DIN 13-1 Metric ISO standard thread
	ISO 228-1 Parallel Whitworth pipe thread BSPP (GB)	M3X0,5 = 0,48Nm M4X0,7 = 1,12Nm

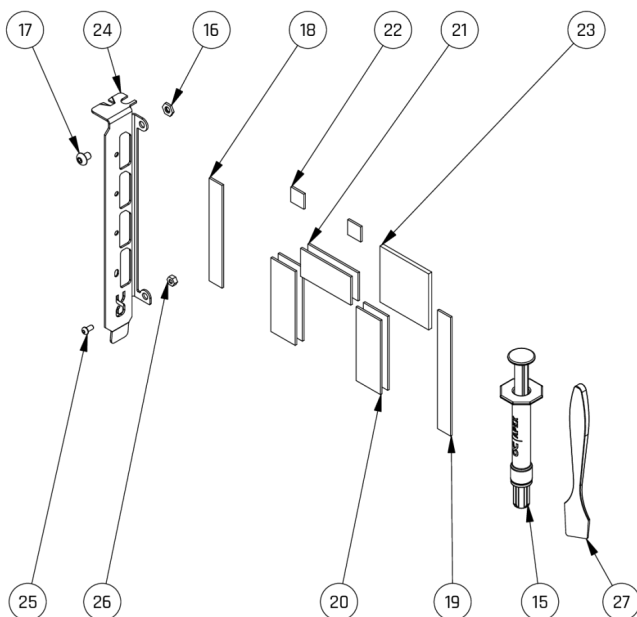


5100335

Alphacool ES AI PRO R9700 1-Slot-Design

Parts List

Number	Quantity	Description	Material
1	1	Cooling plate	Cu-HCP
2	1	Backplate	AlMg0,7Si
3	1	Top	CFRP_
4	1	Jet	POM-C 4520
5	1	O-Ring 137 x 2	NBR Shore 70
6	4	O-Ring 6 x 1,5	NBR Shore 70
7	1	Iso Tape	PI Tape
8	1	Iso Tape2	PI Tape
9	14	GPX Spacer SW5 M4X0,7-M2X0,4 x 3	CuZn39Pb3
10	1	ES Terminal	-
11	2	ISO 4762 - M4 x 10	X5CrNi18-10
12	19	M4 x 6 Countersunk screw	X10CrNi18-8
13	8	PCB Spacer	PA 66,GF25 FR(V-2)
14	14	ISO 7046-1 - M2 x 10	X10CrNi18-8



Accessories

Number	Quantity	Description	Material
15	1	Alphacool Apex Thermal grease 1g	-
16	1	M3 1mm	X5CrNi18-10
17	1	M3 x 4 Pan head screw	X10CrNi18-8
18	1	Pad 55 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
19	1	Pad 63,5 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
20	4	Pad 39,5 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
21	2	Pad 31 x 15 x 1	7W/mK - Shore-00 35 - 1.00 mm
22	2	Pad 8 x 8 x 1	7W/mK - Shore-00 35 - 1.00 mm
23	1	Pad 30 x 30 x 2	7W/mK - Shore-00 35 - 2.00 mm
24	1	Slotbracket	Cr01
25	1	M2 x 4 Pan head screw	X10CrNi18-8
26	1	ISO 4036 - M2 2mm	X10CrNi18-8
27	1	Putty Tool	-