

#### **KEY ADVANTAGES**



High quality liquid cooling of all the crucial CPU components, including VRM modules on the motherboard



Thermally-tested and quality assured



Patented and awarded deformational cutting technology



Customly designed for AMD SP3/TR4 sockets



Heat dissipation increased up to 10 times as compared to the air-cooling

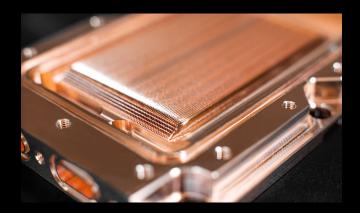
#### **COMINO WATERBLOCKS TECHNOLOGY**

The Comino liquid-cooling system is based on the patented deformational cutting technology that allows to transfer more heat from the source than you would normally expect with direct liquid cooling.

The deformational cutting allows to create a fin as thin as 0.1mm with 0.1mm channel and 3mm height on such materials as cooper, aluminum and their alloys, titanium, steel, plastics, etc. without any special expensive tooling.

Due to a large increase in the surface area (up to 12 times) heat is dissipated fast enough to keep GPU temperatures within a safe range even at 24/7 operation and prevent thermal throttling.

This advantage makes our water blocks cost-effective and extremely efficient.







Unique design for the CPU waterblocks with interchangeable VRM coldplates. Use the same CPU waterblock with different motherboards.



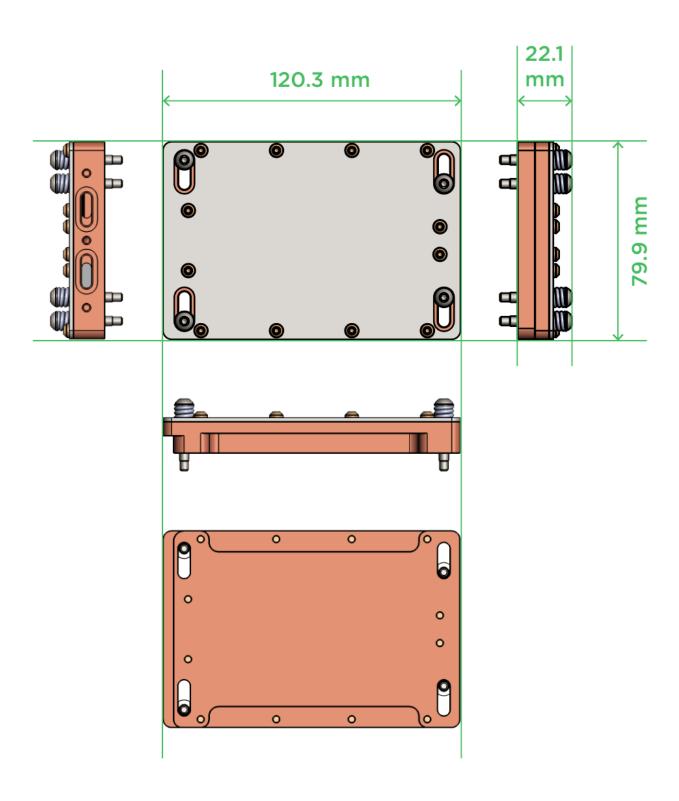
Level-varied VRM coldplates. Ultimate cooling for each and every CPU



Slim waterblocks design that can be used in 1U servers

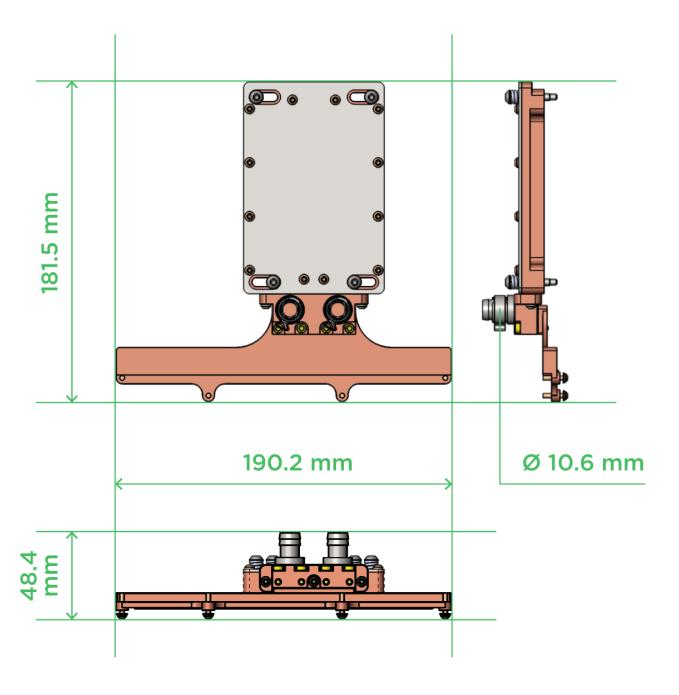
## **TECHNICAL SPECIFICATIONS**

CPU WATERBLOCK SP3/TR4

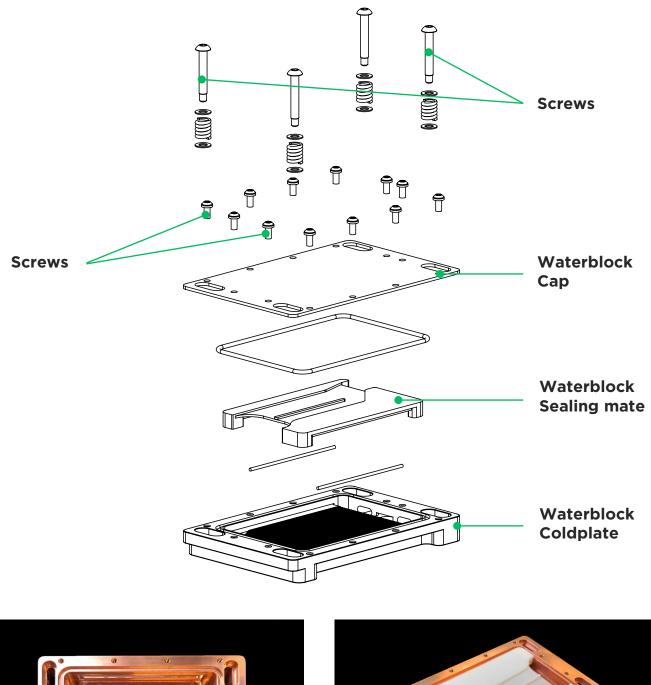


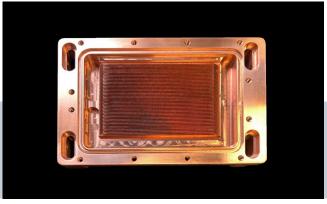
## **TECHNICAL SPECIFICATIONS**

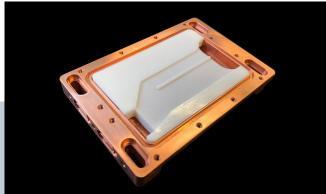
CPU WATERBLOCK SP3/TR4 & VRM FOR ASUS PRO WS WRX80E



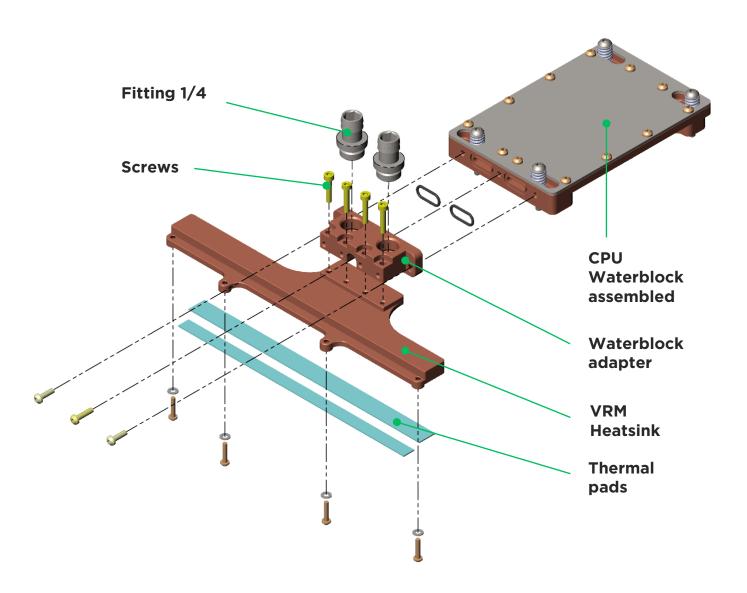
## **WATERBLOCK ASSEMBLY**



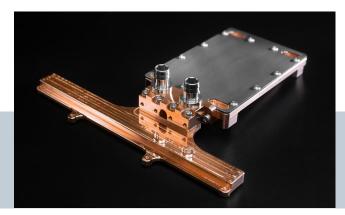




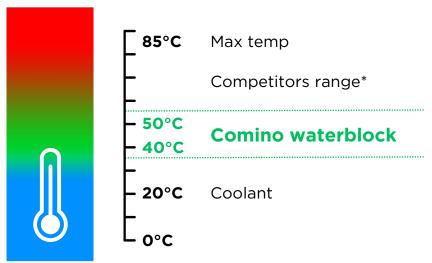
## **VRM ASSEMBLY**



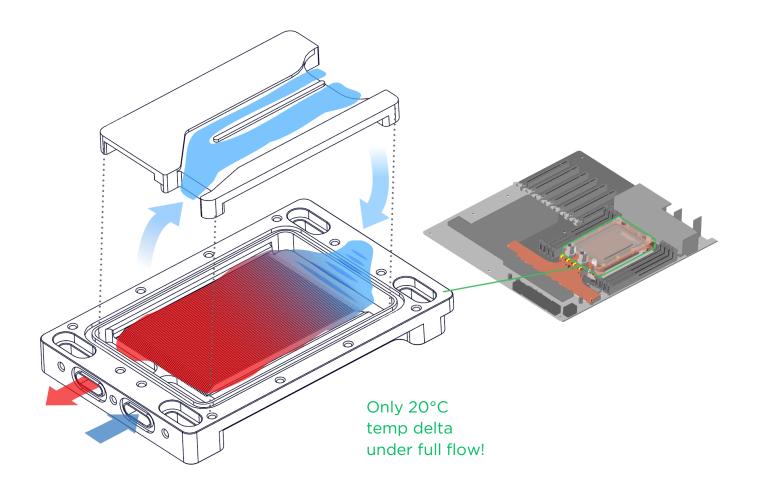




## THERMAL PERFORMANCE



\* — For the same coolant flow



# THERMAL RESISTANCE (CPU-WATER INLET), TEMPERATURE RISE and PRESSURE DROP vs FLOW RATE

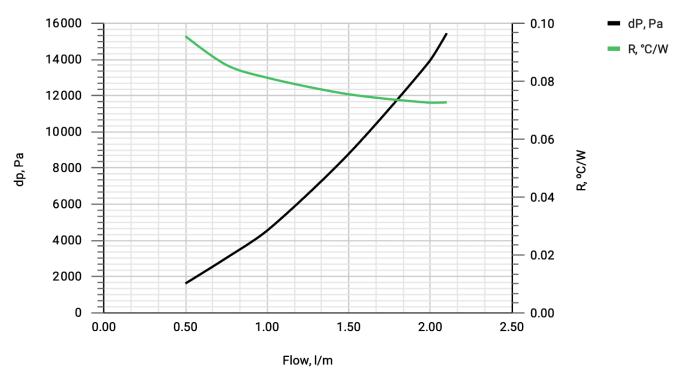
The upper graph indicates waterblock thermal resistance (°C/W) and coolant pressure drop (Pa) between inlet and outlet of waterblock vs coolant flow rate (I/min). The lower graph indicates temperature rise of CPU processor p-n junction relatively to coolant inlet temperature (0°C) vs coolant flow rate (I/min) under different CPU processor power consumption rates.

Motherboard: ASUS Pro WS WRX80E-SAGE SE WIFI

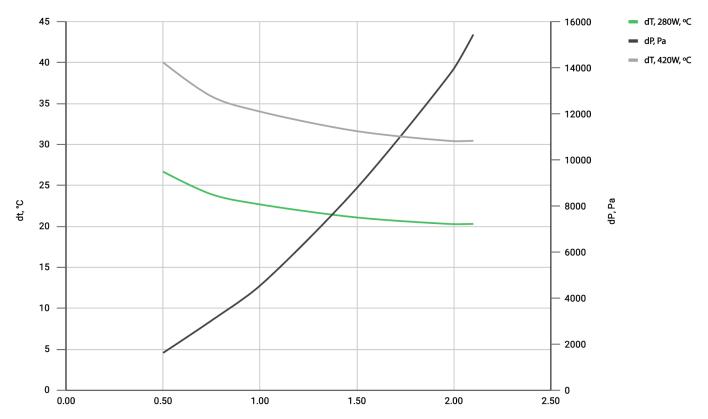
CPU: AMD Ryzen TM Threadripper™ TM PRO 3995WX

CPU Waterblock: Comino WCB SP3/TR4

R (dT/Q) (°C/W) - dP(Pa) combined graph CPU AMD Ryzen Threadripper PRO 3995WX (with WCB)



#### CPU AMD Ryzen Threadripper PRO 3995WX (with WCB)



Thermal resistance research for other CPU models available upon request

#### **COMPATIBLE MODELS**

CPU Waterblock for SP3/TR4 socket is compatible with motherboards:

- Gigabyte WRX80-SU8-IPMI
- ASUS Pro WS WRX80E-SAGE SE WIFI
- ASUS ROG STRIX TRX40-E Gaming
- (!) VRM-module for each MoBo is different

#### **COMPOSITION OF THE KIT**

- Fullcover waterblock SP3/TR4
- VRM for Asus Pro WS WRX80E-SAGE SE WIFI
- Thread adapter
- Fittings
- Mounting kit
- Thermopads

