

Performance-PCs.com

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\$39.95

### **Product Images**





## **Short Description**

The HD7900 series heatsink are designed to cool surface mount components (memory, and mosfets) on AMD® Radeon™ HD 7970 and HD 7950 reference board design graphics cards which Brand Models are listed hereafter.

### Description

The HD7900 series heatsink are designed to cool surface mount components (memory, and mosfets) on AMD® Radeon™ HD 7970 and HD 7950 reference board design graphics cards which Brand Models are listed hereafter. Due to the differences in PCB design between the HD 7970 and 7950, two specific models are available: the HD7970-HS and HD7950-HS

The Heatsinks are designed to be installed in conjunction with our MCW82-7900 VGA waterblocks and to allow stable overclocks

while keeping the cards cool and silent.

The performance advantage of hybrid cooling which consists in cooling the processor with a GPU waterblock in combination with a heatsink, as opposed to using a full-cover water-block solution, is well known among enthusiast users: improved thermal dissipation at the GPU level thanks to Swiftech's Diamond Pin Matrix, a more reliable TIM joint, and less heat dumped into the liquid cooling loop coming from memory and power MOSFETS, since they remain air cooled. In addition, this combination provides a complete solution that is more economical than full-cover waterblocks because the GPU waterblock can be re-used over time with different VGA cards.

The heatsinks are a precision CNC machined Aluminum extrusions, and they are designed to allow optimum TIM joints with the hottest components. Thermal pads are pre-applied onto the pedestals corresponding to each component to be cooled. Lastly, the heatsink feature mounting holes to install an optional 60mm fan to provide additional cooling for users who perform extreme voltage modifications.

### **Features**

#### **Recommended Use**

- Adequate ventilation for no or moderate overclok applications: a gentle draft of air blowing in the general direction of the heatsink is recommended for best results.
- Preferred ventilation for high overclock applications: use of an optional 60x15mm quiet fan (1500 rpm range) is recommended; see thermal test data below for comparative performance with the reference cooling soltuion.

#### Thermal Test Data

All tests were conducted at 23°C +/- 0.5°C ambient - GPU cooled by MCW82-7900 - Liquid Cooling system: MCR320-Drive with 1800 rpm fans.

A first series of tests using the Unigine Heaven benchmark is representative of conditions found in a typical gaming scenario. Two operating conditions were tested: at stock frequency & voltage, and at maximum stable overclock & stock voltage.

| 925  | 78                 | 64                          | 56                                   | 2417  | Low   | ×  |
|------|--------------------|-----------------------------|--------------------------------------|---|---|--|
| 925  | 37                 | 60                          | 57                                   | n/a   | None  | ×  |
| 925  | 37                 | 51                          | 48                                   | 1500  | Whisper   | ×  |
|      |                    |                             |                                      |   |   |  |
|      |                    |                             |                                      |   |   |  |
| 1150 | 81                 | 71                          | 60                                   | 2565  | Low   | ×  |
| 1190 | 38                 | 54                          | 50                                   | 1500  | Whisper   | ×  |
|      | 925<br>925<br>1150 | 925 37<br>925 37<br>1150 81 | 925 37 60<br>925 37 51<br>1150 81 71 | 925 37 60 57<br>925 37 51 48<br>1150 81 71 60 | 925 37 60 57 n/a 925 37 51 48 1500 1150 81 71 60 2565 | 925 37 60 57 n/a None  925 37 51 48 1500 Whisper  1150 81 71 60 2565 Low |

A second series of tests using the Furmark benchmark is representative of artificially high loads not usually encountered in typical gaming (real life) situations. The tests are nonetheless presented as worse case scenarios. Two operating conditions were tested: at stock frequency & voltage, and at maximum stable overclock & stock voltage.

| Reference cooler                  | 925  | 86 | 88  | 67 | 3051 | Noticeable | × |
|-----------------------------------|------|----|-----|----|------|------------|---|
| MCW82-7900 + 7970-<br>HS no fan   | 925  | 45 | 98  | 87 | n/a  | None       | × |
| MCW82-7900 + 7970-<br>HS with fan | 925  | 44 | 77  | 66 | 1500 | Whisper    | × |
| Reference cooler                  | 1150 | 90 | 100 | 72 | 3382 | High       | × |
| MCW82-7900 + 7970-<br>HS with fan | 1190 | 46 | 92  | 75 | 1500 | Whisper    | × |

## **Specifications**

- Material: black anodized aluminum extrusion
- Dimensions (Inch): 9.5" (L) x 3.7" (W) x .73" (H)
- Dimensions (Metric): 242 (L) x 94mm (W) x 18.5 mm (H)
- Weight: 12 oz (338 g)
- Installation: high thermal conductivity 0.5mm pads for memory and power mosfets
- Pre-existing mount holes for optional 80mm fan

Brand Models Compatibility List (subject to frequent updates)

#### Critical information:

The PCB revision numbers noted below represent the deciding factor to go by when selecting your Swiftech product, rather than the brand and/or model number of the card.

Please carefully inspect your card to locate the PCB revision number. All brands using AMD reference PCB's normally print this number on the card. It is usually located immediately above the gold PCI contacts (GPU side of the board).

Here is an example showing a PCB number 109-C20547 (the -00P at the end can be ignored)

Caution: 1 digit may make the difference between supported or not supported!



| HD7970-HSF compatible graphics card models by brand                    | HD7950-HSF compatible graphics card models by        |
|--|--|
| ASUS HD7970-3GD5-3DI2S Radeon HD 7970 3GB                              | ASUS HD7950-DC2-3GD5 Radeon HD 7950 3GB              |
| CLUB-3D HD7970, Radeon HD7970, 3.0GB GDDR5, PCI-Express (CGAX-7977)    | ASUS HD7950-DC2T-3GD5 Radeon HD 7950 3GB             |
| Diamond AMD Radeon HD 7970 PCIE 3G GDDR5 Video Graphics Card 7970PE53G | Club 3D CGAX-7957 Radeon HD 7950 3GB GDDR5           |
| GIGABYTE GV-R797D5-3GD-B   | Club 3D CGAX-79770 Radeon HD 7970 royalKing 3GB GI   |
| GIGABYTE GV-R797OC-3GD Radeon HD 7970 3GB                              | GIGABYTE GV-R795WF3-3GD Radeon HD 7950 3GB           |
| HIS H797F3G2M Radeon HD 7970 3GB                                       | HIS H795F3G2M Radeon HD 7950 3GB                     |
| HIS H797QMT3G2M HD 7970 IceQ X2 Turbo 3GB                              | MSI R7950 Twin Frozr 3GD5/OC Radeon HD 7950 3GB      |
| MSI R7970-2PMD3GD5 Radeon HD 7970 3GB                                  | MSI R7950-2PMD3GD5/OC Radeon HD 7950 3GB             |
| MSI R7970-2PMD3GD5/OC Radeon HD 7970 3GB                               | PowerColor AX7950 3GBD5-2DH Radeon HD 7950 3GB       |
| PowerColor AX7970 3GBD5-2DHV2 Radeon HD 7970 3GB                       | PowerColor PCS+ AX7950 3GBD5-2DHPP Radeon HD 795     |
| PowerColor AX7970 3GBD5-2DHV3 Radeon HD 7970 3GB                       | Sapphire Radeon HD 7950 3GB GDDR5 (11196-00-40G)     |
| PowerColor AX7970 3GBD5-M2DHG Radeon HD 7970 3GB                       | Sapphire Radeon HD 7950 OC 3GB GDDR5 (11196-02-40    |
| SAPPHIRE 11197-01-40G Radeon HD 7970 3GB                               | VisionTek 900492 Radeon HD 7950 3GB                  |
| SAPPHIRE 21197-00-40G Radeon HD 7970 3GB                               | VTX3D Radeon HD 7950 3GB GDDR5 (VX7950 3GBD5-2D      |
| SAPPHIRE 11197-06-40G Radeon HD 7970 3GB                               | VTX3D Radeon HD 7950 X-Edition 3GB GDDR5 (VX7950 3   |
| VisionTek 900491 Radeon HD 7970 3GB                                    | XFX Double D Black Edition FX-795A-TDBC Radeon HD 79 |
| VTX3D HD7970 3GB GDDR5 VX7970 3GBD5-M2DHG                              | XFX Radeon HD 7950 Black Edition 3GB GDDR5 (FX-795A  |
| VTX3D HD7970 3GB GDDR5 X-Edition VX7970 3GBD5-2DHX                     | XFX FX-795A-TNFC Radeon HD 7950 Core Edition 3GB     |
| XFX Double D FX-797A-TDBC Radeon HD 7970 Black Edition 3GB             | XFX Double D FX-795A-TDFC Radeon HD 7950 3GB         |
| XFX Double D FX-797A-TDFC Radeon HD 7970 3GB                           |  |

| XFX FX-797A-TNBC Radeon HD 7970 Black Edition 3GB |  |
|---|--|
| XFX FX-797A-TNFC Radeon HD 7970 Core Edition 3GB  |  |

# Additional Information

| Brand          | Swiftech  |
|----------------|-----------|
| SKU            | HD7950-HS |
| Weight         | 2.5000    |
| Color          | Black     |
| Vga            | AMD 7XXX  |
| Block GPU Type | AMD       |
| Block Style    | Aluminum  |

