AMD RADEON RX 7900 XT | SAPPHIRE

SAPPHIRE NITRO+

SAPPHIRE NITRO+ AMD Radeon™ RX 7900 XTGaming Graphics Card with 20GB GDDR6, AMD RDNA™ 3. SKU Number: 11323-01

DIMENSIONS:
- 320(L)x 135.75(W)x 71.6(H)mm
- 4 x Maximum Display Monitors support
- 2 x DP / 2 x HDMI

MAXIMUM DISPLAY RESOLUTION
- HDMI™: 7680×4320
- DisplayPort2.1: 7680×4320

ACCESSORIES
- L Shape Supporter
- 3pin 5V ARGB Cable

HDMI™ HIGH DEFINITION MULTIMEDIA INTERFACE

Specification

- GPU: Radeon™ RX 7900XT Graphics
- Stream Processors: Up to 5376 unit
- Compute Units: 84
- Ray Accelerators: 84
- Infinity Cache: 80MB
- Game Clock: 2220 MHz
- Boost Clock: Up to 2560 MHz
- Memory Speed: 20 Gbps
- Memory Size: 20480 MB
- Memory Interface: 320 bit DDR6
- Firmware: UEFI BIOS
- Form Factor: 3.5 slot, ATX
- Cooler Fan: Axial Fan
- Bus Support: x16 PCIe4.0
- External Power: 3 x 8p

NITRO+ Product Features

- Vapor Chamber
- Assisted System Fan Control
- NITRO Glow ARGB / Dual ARGB Light Bar
- External RGB LED Synchronization
- Software BIOS Switch / Dual BIOS
- Fan Check / Quick Connect Fan
- TriXX Boost
- Max Boost
- Angular Velocity Fan Blade
- Wave Fin Design / V-Shape Fin Design / Back Plate
- Die Casted Aluminum-Magnesium Alloy Frame

AMD Radeon™ Product Features

- AMD RDNA™ 3 architecture
- AMD Radiance Display™ Engine
- AMD Radeon™ Boost technology
- AMD Radeon™ Anti-Lag technology
- PCI® Express 4.0 ready
- AMD Fidelity FX™ technologies
- AMD Fidelity FX™ Super Resolution technology
- Microsoft® DirectX® 12 Ultimate
- Microsoft® Direct Storage
- Vulkan® Optimized
- AMD smart technologies
- AMD Software: Adrenalin Edition™ application
- AMD Noise Suppression
- AMD Privacy View
- AMD Radeon™ Super Resolution technology
- AMD Link
- AMD Freesync™ technology

- PCI® Express© compatible motherboard with one x16 PCIe slot
- Minimum 750w or greater power supply

  NOTE: Minimum recommended system power supply wattage is based on the specific graphics card and the typical power requirements of other system components. Your system may require more or less power. OEM and other pre-assembled PCs may have different power requirements.
- Minimum 8GB of system memory. Recommended 16GB.
- Supported operating systems include Linux®, Windows 10/11. 64-bit operating system required

ADVANCED GAMING WITH AMD RDNA™ 3 ARCHITECTURE

Record and Stream
AMD Instant Replay

Brilliant Color Accuracy
AMD Radiance Display Engine

Crisp and Clear
AMD Noise Supression*

Unified AMD Performance
AMD smart technologies

Elevate Your Game
AMD Software: Adrenalin Edition™ application

High Performance Rendering
AMD FidelityFX™ & Radeon™ Super Resolution technologies

Primary Settings

Game Clock*	2220 MHz
Boost Clock	2560 MHz
Memory Clock	20 Gbps
TGP	290w
Secondary Settings	
Game Clock*	2025 MHz
Boost Clock	2395 MHz
Memory Clock	20 Gbps
TGP	257w
Software Switch Mode	
Primary setting (Default)	Secondary Settings

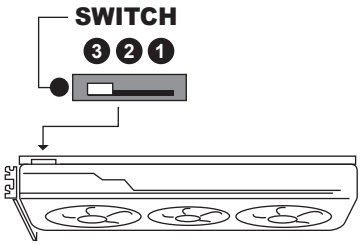
** Boost Clock is the maximum frequency achievable on the GPU running bursty workload. Boost clock achievability, frequency, and sustainabilty will vary based on several factors, including but not limited to: thermal conditions and variation in application and workloads.*

** Game Clock is the expected GPU clock when running typical gaming applications, set to typical TGP (Total Graphics Power). Actual individual game clock results may vary.*

OC BIOS
SAPPHIRE NITRO+ AMD Radeon™ RX 7900 XTX, and RX 7900 XT have the primary BIOS set to the maximum TGP setting for optimal performance.

Max Boost
The Max Boost switch increases the boost clock and power limit to unleash the gaming performance of the card. Planning to overclock or looking for maximum performance?

BIOS switch setting



POSITION	MODE
3 Default Switch Position	**Software Switch Mode** Please Switch BIOS via TriXX Primary Setting (OC BIOS Default) / Secondary Setting
2	**Secondary Setting**
1	**Primary Setting** (OC BIOS Default)

TriXX Software: BIOS Switch
With the NITRO+ AMD Radeon™ RX 7900 XT Graphics Card, gamers can switch from Primary setting to Secondary setting or back using our TriXX software for a quick and easy switch between your dual BIOS modes.

Power Design
The NITRO+ AMD Radeon™ RX 7900 XT Graphics Card is designed with Digital Power specifically for GPU and memory to aid in overclocking, balancing current distribution and averaging thermal dissipation for each power phase.

Fuse Protection
In order to protect your card, the SAPPHIRE cards have fuse protection built into the circuit of the external PCI-E power connector to keep the components safe.

High TG Copper PCB
The GPU is mounted on to the high-density 14 layer 2oz Copper PCB with a high TG temperature value PCB to match the power requirements of the GPU and memory and guarantee mechanical stability of the PCB during operation.

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NITRO Cool Tech

NITRO Cool Tech is a combination of various SAPPHIRE cooling technologies with the goal to keep the product in the balance of cooling performance and noise level. It does not only cool GPU and memory but also take other heat sources into account on the graphics card.

Intelligent Fan Control

Fan speed is intelligently controlled to keep the GPU, Memory, PWM IC and other components as low as possible in temperature to balance performance and fan noise.

Precision fan control

Standard industry fans may have up to 10% difference between fan rotation cycles (RPM). The Fan IC Control on SAPPHIRE graphics cards reduce differential at approximately 3%. This up to 70% improvement on accuracy ensures that cooling and noise performance of every graphics card is up to scratch.

Two-Ball Bearing Fans

These feature Dual Ball bearing fans, which have an approximately 85% longer lifespan than sleeve bearings in our tests. The improvements to the fan blades means the solution is up to 10% quieter than the previous generation.

Metal Backplate with Thermal Pad

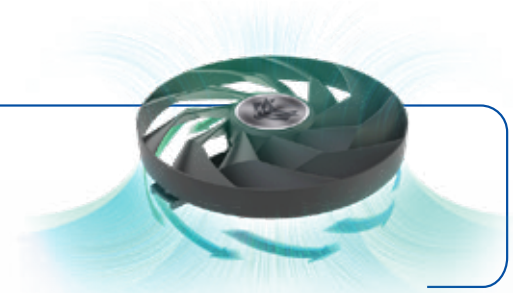
The high quality aluminum backplate is not just for styling. It also protects the components on the backside of the PCB and helps dissipate the heat from the PCB with a high performance thermal pad in between.

Optimized Composite Heatpipe

The composite heatpipes are fine-tuned for each individual cooling design with optimal heat flow, efficiently and evenly spreading out the heat to the entire cooling module.

Angular Velocity Fan Blade

The Angular Velocity Fan Blade provides a double layer of downward air pressure which alongside the air pressure on the outer ring of the Axial fan, results in up to 44% more downward air pressure and up to 19% more airflow for a quieter and cooler operation.



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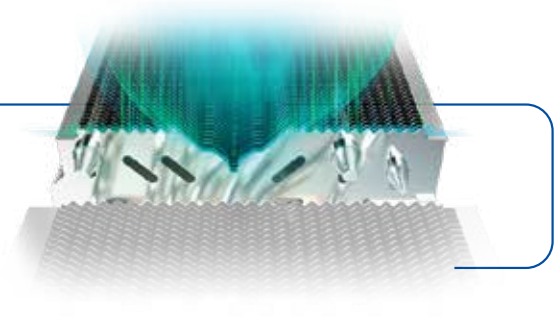
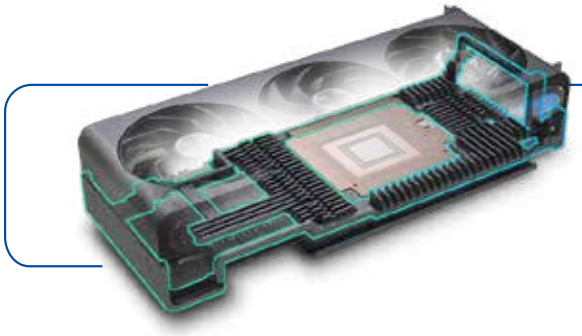
Wave Fin Design & V Shape Fin Design for Improved GPU Cooling

The all-new innovative Wave Fin Design working in tandem with our V-Shape Fin Design for GPU Cooling reduces wind friction and centralises the airflow around the GPU to dissipate heat efficiently to produce lower thermal temperatures.



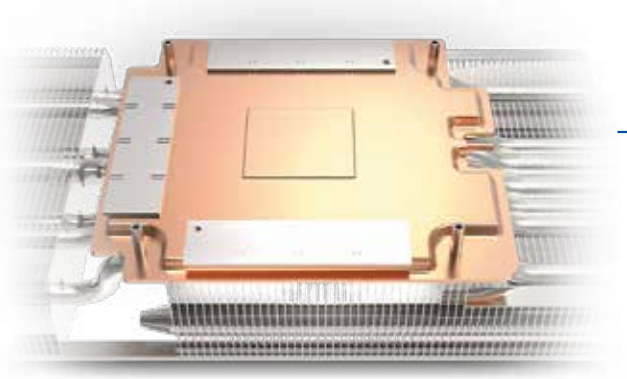


Die Casted Aluminum-Magnesium Alloy Frame

The Die Casted Aluminum-Magnesium Alloy Frame enveloping the sides of the PCB help to strengthen the structural stiffness of the shroud to create a strong, scratch resistant and high quality finish that elevates the aesthetic and strength of the graphics card.

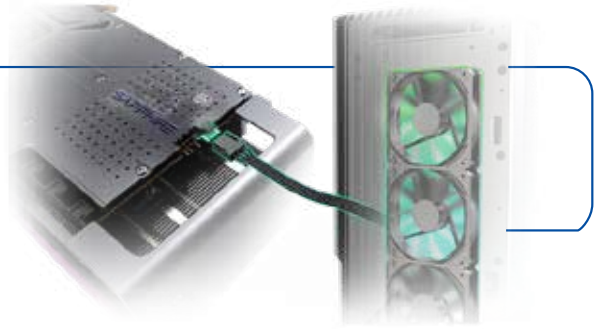
Vapor-X Cooling

The Vapor Chamber is mounted in contact with the surface of the main GPU chip and GDDR6 Memory. Since the entire area would transfer heat at the same rate, the Vapor-X module is engineered to work more efficiently than a copper heat sink at carrying away heat. Upon gaining heat, the heat source is pushed to the Vaporization Wicks to begin the heat dissipation process. Due to extreme low pressure, working fluid and pure water can be easily vaporized, and easily moves through the vacuum until it reaches the Condensing Wick which is adjacent to the cooled surface. Here it turns back to a liquid state whereby the liquid is then absorbed by the Transportation Wick by capillary action and moved back towards the Vaporization Wick. A recycled liquid system occurs when the heat source reheats the liquid and it becomes re-vaporized by the Vaporization Wick to restart the Vapor-X Cooling process.



Assistive System Fan Control

When the temperature of the GPU rapidly rises, the fans on the graphics card will speed up accordingly. To aid in rapid cooling and heat dissipation, the Assistive System Fan Control feature on TriXX controls the speed of a system fan to automatically increase alongside the graphics card fans simultaneously to assist in expelling hot air from the entire system faster.



TriXX Supported

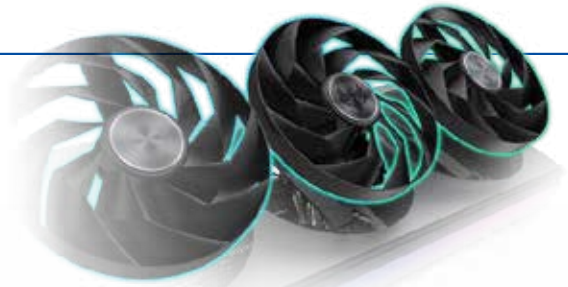
The TriXX Software includes a range of features such as TriXX Boost, Software BIOS Switch and NITRO Glow ARGB LED Effect which can only be controlled via TriXX. Customize your individual style with TriXX Software and heighten your gaming experience!

Fan Check

At times fans need a service but it can be frustrating to return the entire card and wait for a replacement to be authorized. The fan Check feature allows users to check the cooler's status and immediately contact customer support through Fan Service in case of problems.

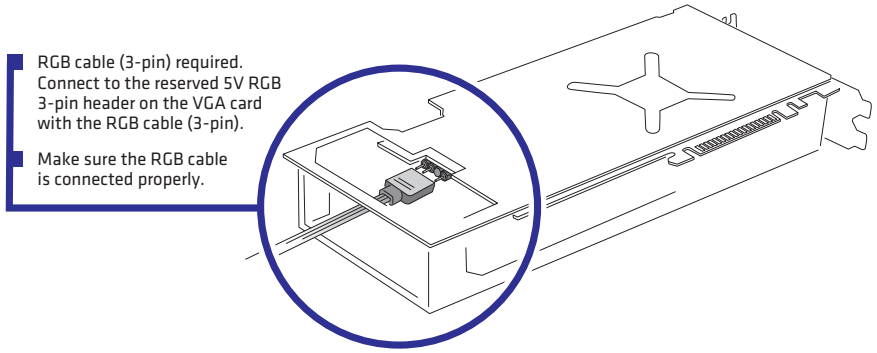
Fan Quick Connect

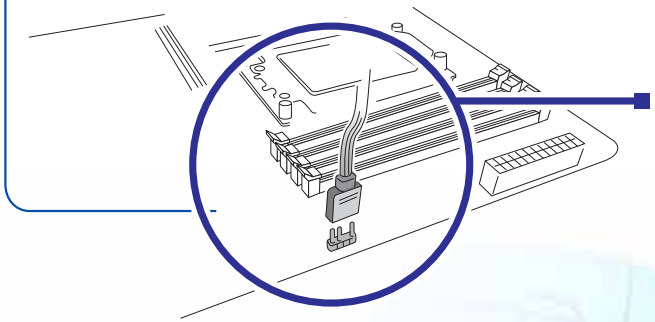
If there's a fan problem, you don't have to return the entire card. SAPPHIRE or our channel partners will send out a replacement fan directly to you! That means they're easy to remove, clean and replace, with just one screw holding them securely in place.



NITRO GLOW

With tasteful shroud design augmented by ARGB LEDs, you can change the colors of the LEDs, for a customized design. This can be controlled via TriXX software. Choose from various different modes including Fan Speed Mode, PCB Temperature Mode or the Colourful Rainbow Mode or turn off the LEDs.





External RGB LED MB Synchronization

Synchronize addressable RGB LED effects with the motherboard by selecting “External” in TriXX software.

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