

Gigabyte Aorus GeForce RTX 3070 Ti Master vs Gigabyte GeForce RTX 3070 Ti Gaming OC: What is the difference?

Gigabyte Aorus GeForce RTX 3070 Ti Master

Gigabyte GeForce RTX 3070 Ti Gaming OC

vs

Gigabyte Aorus GeForce RTX 3070 Ti Master

Gigabyte GeForce RTX 3070 Ti Gaming OC

Why is Gigabyte Aorus GeForce RTX 3070 Ti Master better than Gigabyte GeForce RTX 3070 Ti Gaming OC?

- 1 more DisplayPort outputs?3vs2
- 1 more HDMI ports?3vs2

Why is Gigabyte GeForce RTX 3070 Ti Gaming OC better than Gigabyte Aorus GeForce RTX 3070 Ti Master?

- 13mm shorter?129mmvs142mm

Price comparison

Cheap alternatives

Zotac Gaming GeForce RTX 3070 Ti Trinity OC

Gigabyte GeForce RTX 3070 Gaming OC

Nvidia GeForce RTX 3070 Ti

Gigabyte Radeon RX 6750 XT Gaming OC

Asus ROG Strix Radeon RX 6750 XT OC Edition

Gigabyte GeForce RTX 3070 Ti Eagle OC

Palit GeForce RTX 3070 Ti GamingPro

Gigabyte Radeon RX 6650 XT Gaming OC

Palit GeForce RTX 3070 JetStream

Gigabyte Aorus Radeon RX 6750 XT Elite

User reviews

Overall Rating

Gigabyte Aorus GeForce RTX 3070 Ti Master

1 User reviews

Gigabyte Aorus GeForce RTX 3070 Ti Master

Gigabyte GeForce RTX 3070 Ti Gaming OC

0 User reviews

Gigabyte GeForce RTX 3070 Ti Gaming OC

Features

Performance

The graphics processing unit (GPU) has a higher clock speed.

When the GPU is running below its limitations, [10 Pg]

✓ Gigabyte GeForce RTX 3070 Ti Gaming OC

Ray tracing is an advanced light rendering technique that provides more realistic lighting, shadows, and reflections in games.

Supports 3D

✓ Gigabyte Aorus GeForce RTX 3070 Ti Master

✓ Gigabyte GeForce RTX 3070 Ti Gaming OC

Allows you to view in 3D (if you have a 3D display and glasses).

supports DLSS

✓ Gigabyte Aorus GeForce RTX 3070 Ti Master

✓ Gigabyte GeForce RTX 3070 Ti Gaming OC

DLSS (Deep Learning Super Sampling) is an upscaling technology powered by AI. It allows the graphics card to render games at a lower resolution and upscale them to a higher resolution with near-native visual quality and increased performance. DLSS is only available on select games.

PassMark (G3D) result

Unknown. Help us by suggesting a value. (Gigabyte Aorus GeForce RTX 3070 Ti Master)

Unknown. Help us by suggesting a value. (Gigabyte GeForce RTX 3070 Ti Gaming OC)

This benchmark measures the graphics performance of a video card. Source: PassMark.

Ports

has an HDMI output

✓ Gigabyte Aorus GeForce RTX 3070 Ti Master

✓ Gigabyte GeForce RTX 3070 Ti Gaming OC

Devices with a HDMI or mini HDMI port can transfer high definition video and audio to a display.

More HDMI ports mean that you can simultaneously connect numerous devices, such as video game consoles and set-top boxes.

Newer versions of HDMI support higher bandwidth, which allows for higher resolutions and frame rates.

Allows you to connect to a display using DisplayPort.

Allows you to connect to a display using DVI.

Allows you to connect to a display using mini-DisplayPort.

General info

The thermal design power (TDP) is the maximum amount of power the cooling system needs to dissipate. A lower TDP typically means that it consumes less power.

A higher transistor count generally indicates a newer, more powerful processor.

Small semiconductors provide better performance and reduced power consumption. Chipsets with a higher number of transistors, semiconductor components of electronic devices, offer more computational power. A small form factor allows more transistors to fit on a chip, therefore increasing its performance.

Peripheral Component Interconnect Express (PCIe) is a high-speed interface standard for connecting components, such as graphics cards and SSDs, to a motherboard. Newer versions can support more bandwidth and deliver better performance.

warranty period

Unknown. Help us by suggesting a value. (Gigabyte Aorus GeForce RTX 3070 Ti Master)

Unknown. Help us by suggesting a value. (Gigabyte GeForce RTX 3070 Ti Gaming OC)

When covered under the manufacturer's warranty it is possible to get a replacement in the case of a malfunction. Note: This may vary by region.

The graphics card uses a combination of water and air to reduce the temperature of the card. This allows it to be overclocked more, increasing performance.

The width represents the horizontal dimension of the product.

The height represents the vertical dimension of the product.

Price comparison

Which are the best graphics cards?

Asus ROG Strix GeForce RTX 4090 OC

Asus TUF GeForce RTX 4090 OC

Asus TUF GeForce RTX 4090

Asus ROG Strix GeForce RTX 4090

Colorful iGame GeForce RTX 4090 Neptune OC

MSI GeForce RTX 4090 Suprim Liquid X

MSI GeForce RTX 4090 Suprim X

Colorful iGame GeForce RTX 4090 Vulcan OC

Gainward GeForce RTX 4090 Phantom

Palit GeForce RTX 4090 GameRock OC

Show all

Asus Dual GeForce RTX 3070 vs Gigabyte Aorus GeForce RTX 3070 Ti Master: What is the difference?

Asus Dual GeForce RTX 3070

Gigabyte Aorus GeForce RTX 3070 Ti Master

vs

Asus Dual GeForce RTX 3070

Gigabyte Aorus GeForce RTX 3070 Ti Master

Why is Asus Dual GeForce RTX 3070 better than Gigabyte Aorus GeForce RTX 3070 Ti Master?

- 70W lower TDP?220Wvs290W
- 562MHz faster memory clock speed?1750MHzvs1188MHz
- 57mm narrower?267mmvs324mm

Why is Gigabyte Aorus GeForce RTX 3070 Ti Master better than Asus Dual GeForce RTX 3070?

- 2.73 TFLOPS higher floating-point performance?23.04 TFLOPSvs20.31 TFLOPS
- 14.4 GPixel/s higher pixel rate?180 GPixel/svs165.6 GPixel/s
- 5000MHz higher effective memory clock speed?19000MHzvs14000MHz
- 42.6 GTexels/s higher texture rate?360 GTexels/svs317.4 GTexels/s
- 160GB/s more memory bandwidth?608GB/svs448GB/s
- 150MHz faster GPU turbo speed?1875MHzvs1725MHz
- 1 newer version of OpenCL?3vs2

- 1 more HDMI ports?3vs2

Price comparison

Cheap alternatives

Zotac Gaming GeForce RTX 3070 Ti Trinity OC

Gigabyte GeForce RTX 3070 Gaming OC

Gainward GeForce RTX 3070 Ti Phoenix

Nvidia GeForce RTX 3070 Ti

PowerColor Red Dragon Radeon RX 6800 XT

Gigabyte GeForce RTX 3070 Ti Vision OC

PowerColor Red Devil Radeon RX 6800 XT

Gigabyte Radeon RX 6750 XT Gaming OC

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Overall Rating

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Gigabyte Aorus GeForce RTX 3070 Ti Master

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Gigabyte Aorus GeForce RTX 3070 Ti Master

Features

Performance

The graphics processing unit (GPU) has a higher clock speed.

When the GPU is running below its limitations, it can boost to a higher clock speed in order to give increased performance.

The number of pixels that can be rendered to the screen every second.

Floating-point performance is a measurement of the raw processing power of the GPU.

The number of textured pixels that can be rendered to the screen every second.

The memory clock speed is one aspect that determines the memory bandwidth.

Shading units (or stream processors) are small processors within the graphics card that are responsible for processing different aspects of the image.

TMUs take textures and map them to the geometry of a 3D scene. More TMUs will typically mean that texture information is processed faster.

The ROPs are responsible for some of the final steps of the rendering process, writing the final pixel data to memory and carrying out other tasks such as anti-aliasing to improve the look of graphics.

Memory

The effective memory clock speed is calculated from the size and data rate of the memory. Higher clock speeds can give increased performance in games and other apps.

This is the maximum rate that data can be read from or stored into memory.

VRAM (video RAM) is the dedicated memory of a graphics card. More VRAM generally allows you to run games at higher settings, especially for things like texture resolution.

A wider bus width means that it can carry more data per cycle. It is an important factor of memory performance, and therefore the general performance of the graphics card.

Newer versions of GDDR memory offer improvements such as higher transfer rates that give increased performance.

Error-correcting code memory can detect and correct data corruption. It is used when it is essential to avoid corruption, such as scientific computing or when running a server.

Features

DirectX is used in games, with newer versions supporting better graphics.

OpenGL is used in games, with newer versions supporting better graphics.

Some apps use OpenCL to apply the power of the graphics processing unit (GPU) for non-graphical computing. Newer versions introduce more functionality and better performance.

The graphics card supports multi-display technology. This allows you to configure multiple monitors in order to create a more immersive gaming experience, such as having a wider field of view.

load GPU temperature

Unknown. Help us by suggesting a value. (Asus Dual GeForce RTX 3070)

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A lower load temperature means that the card produces less heat and its cooling system performs better.

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Show all

Nvidia RTX 3070 vs 3070-Ti

- CPU
- GPU
- SSD

- HDD
- RAM
- USB

Real World Speed

Performance profile from 590,705 user samples

142,865 User Benchmarks

Best Bench: 179% Gigabyte(1458 408E) ≥ 4GB Worst Bench: 148% Nvidia(10DE 14B2) ≥ 4GB

Effective 3D Speed Effective 3D Gaming GPU Speed 167 % Slightly faster effective speed.+8% 154 %
 Lighting Avg. Locally-deformable PRT (Bat) 235 fps Slightly better lighting effects.+8% 218 fps Reflection Avg. High dynamic range lighting (Teapot) 217 fps +4% 209 fps MRender Avg. Render target array GShader (Sphere) 247 fps Faster multi rendering.+26% 196 fps Gravity Avg. NBody particle system (Galaxy) 159 fps +5% 152 fps
 Lighting Locally-deformable PRT (Bat) 257 fps Slightly better peak lighting effects.+7% 240 fps Reflection High dynamic range lighting (Teapot) 268 fps Slightly better peak reflection handling.+7% 251 fps MRender Render target array GShader (Sphere) 264 fps Faster peak multi rendering.+26% 210 fps Gravity NBody particle system (Galaxy) 168 fps +4% 162 fps

Market Share

Based on 57,421,632 GPUs tested.

Market Share Market Share (trailing 30 days) 2.28 % 4.51 % Hugely higher market share.+98% Value Value For Money 45.3 % +1% 44.8 %
 User Rating UBM User Rating 63 % 99 % Much more popular.+57% Price Price (score) €750 €702 Slightly cheaper.+6%
 Age Newest 18 Months More recent.+28% 25 Months Parallax Parallax occlusion mapping (Stones) 234 fps +4% 224 fps Splatting Force Splatting Flocking (Swarm) 137 fps 143 fps +4% Parallax Avg. Parallax occlusion mapping (Stones) 208 fps +5% 199 fps Splatting Avg. Force Splatting Flocking (Swarm) 129 fps 134 fps +4%

Nvidia's 3070 GPU offers once in a decade price/performance improvements: a 3070 offers 45% higher effective speed than a 2070 at the same MSRP. Given the widespread issues AMD users are facing with 5000 series GPUs (blue/black screens etc.), it is unlikely that AMD would have posed a rational threat to Nvidia's market share this year. Nvidia's price cuts are likely related to upcoming console updates. The seven year old hardware in both the Xbox One and Playstation 4 is due an update later this year. Whatever the motivation behind Nvidia's price cuts, Christmas has come early for PC gamers who can look forward to an unparalleled gaming experience in class leading titles such as Cyberpunk 2077. At ultra settings, with ray tracing enabled, Cyberpunk 2077 redefines the boundaries of immersive gaming. It makes GTA5 look like Tetris in comparison. The combination of RTX+DLSS delivers stunning graphics that are several tiers higher than both AMD's best discrete GPUs and the upcoming consoles. In terms of real world performance, Nvidia's 3000 series has more or less put AMD's Radeon group in checkmate. Nonetheless, AMD's marketers are capable of delivering elaborate BS albeit whilst struggling to keep a straight face. Their marketing infrastructure outsold Intel in the CPU market despite a 15% performance deficit. Without an appropriate social media marketing strategy, Nvidia will probably lose considerable market share, for all the wrong reasons. [Oct '20 GPUPro]

MORE DETAILS



Group Test Results

- Best user rated - User sentiment trumps benchmarks for this comparison.
- Best value for money - Value for money is based on real world performance.
- Fastest real world speed - Real World Speed measures performance for typical consumers.

How Fast Is Your GPU? (Bench your build) Size up your PC in less than a minute.

Welcome to our freeware PC speed test tool. UserBenchmark will test your PC and compare the results to other users with the same components. You can quickly size up your PC, identify hardware problems and explore the best upgrades.

UserBenchmark of the month

How it works

- - Download and run UserBenchmark.
- - CPU tests include: integer, floating and string.
- - GPU tests include: six 3D game simulations.
- - Drive tests include: read, write, sustained write and mixed IO.
- - RAM tests include: single/multi core bandwidth and latency.
- - SkillBench (space shooter) tests user input accuracy.
- - Reports are generated and presented on userbenchmark.com
- - Identify the strongest components in your PC.
- - See speed test results from other users.
- - Compare your components to the current market leaders.
- - Explore your best upgrade options with a virtual PC build.
- - Compare your in-game FPS to other users with your hardware.

Frequently Asked Questions

Best User Rated