

AMD Ryzen 9 5900x

Course code: CSE-0410

Course: Parallel Processing and Distributed System Lab

Submitted to:

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General Specifications

Number of CPU Cores: 12

Number of Threads: 24

Max. Boost Clock: Up to 4.8GHz

Base Clock: 3.7GHz

Total L2 Cache memory: 6MB

Total L3 Cache memory: 64MB

Unlocked for Overclocking :Yes

Connectivity:

PCI Express Version: PCIe 4.0

System Memory Type: DDR4

System Memory Specification: Up to 3200MHz

Higher Instructions Per Clock (IPC)

- ❑ what is IPC?

IPC stands for instructions per cycle/clock. It's the amount of work the CPU can do within one clock cycle.

- ❑ The "Zen 3" architecture can extract an average of 19% additional performance from every MHz of frequency relative to the previous generation². This is a historically large generational improvement in IPC.

AMD Ryzen for Creators

- ❑ AMD's Ryzen has consistently retained its lead over Intel when it comes to CPU rendering tasks where the raw multi-core performance of a processor matters more than any other factor.
- ❑ The After Effects GUI(graphical user interface) is less sluggish, especially in heavy comps with hundreds of layers. Rendering Frame previews and sequences feels faster. The same goes for other Adobe Apps across the board. They all rely heavily on high single-core performance, and the 5900X is a monster in terms of responsiveness.
- ❑ In active work, the CPU stays extremely cool at around 40°. It tops out at around 82°C.

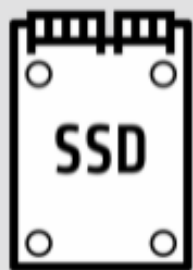
POWERHOUSE FOR DESKTOP CREATORS

- ▲ Fastest in 3D Rendering
- ▲ Fastest in Video Encoding
- ▲ Fastest in Computed Aided Design
- ▲ Fastest in Software Compiling



AMD StoreMI Technology

❑ AMD StoreMI technology is a powerful tool for PC enthusiasts that want to improve load times, boot times, file management, or system responsiveness.



**Easily Combines SSD
Speed with HDD
Capacity**



**New UI Makes
Configuration a
Breeze**



**New Acceleration
Algorithm Enhances
Data Integrity**

AMD StoreMI Technology

- ❑ A fast and easy way to expand and accelerate the storage in a desktop PC with an AMD Ryzen™ processor.
- ❑ StoreMI technology improves load times, boot times, file management, or system responsiveness
- ❑ Maybe a user installed Windows to a hard drive, but don't want to reinstall anything to get SSD-like performance: StoreMI can help.
- ❑ Hard drive with all games could get into the match at SSD speeds by using StoreMI technology.
- ❑ AMD StoreMI technology accepts HDD and SSD pairings of any capacity.

Master Utility for Overclocking Control

- ❑ Every AMD Ryzen processor is multiplier-unlocked from the factory. AMD provides the AMD Ryzen Master utility to access this powerful advantage

- ❑ Basic View:

The new basic view provides a user with the ability to automatically overclock his CPU, manually control how much overclocking he wish to apply as well and give him a view of important system parameters like the CPU temperature, speed and voltages.

Master Utility for Overclocking Control

☐ Personalized Performance:

A user can adjust performance parameters for the active cores, integrated graphics frequency and adjust memory timings. He can optimize for general performance or fine tune the settings for your favorite applications.

☐ System Monitoring:

Accurate hardware status updates are vital, so AMD Ryzen Master has covered with both real-time monitoring and a histogram of per-core clock rates and temperature, including average and peak readings.

AMD Ryzen for Gamers

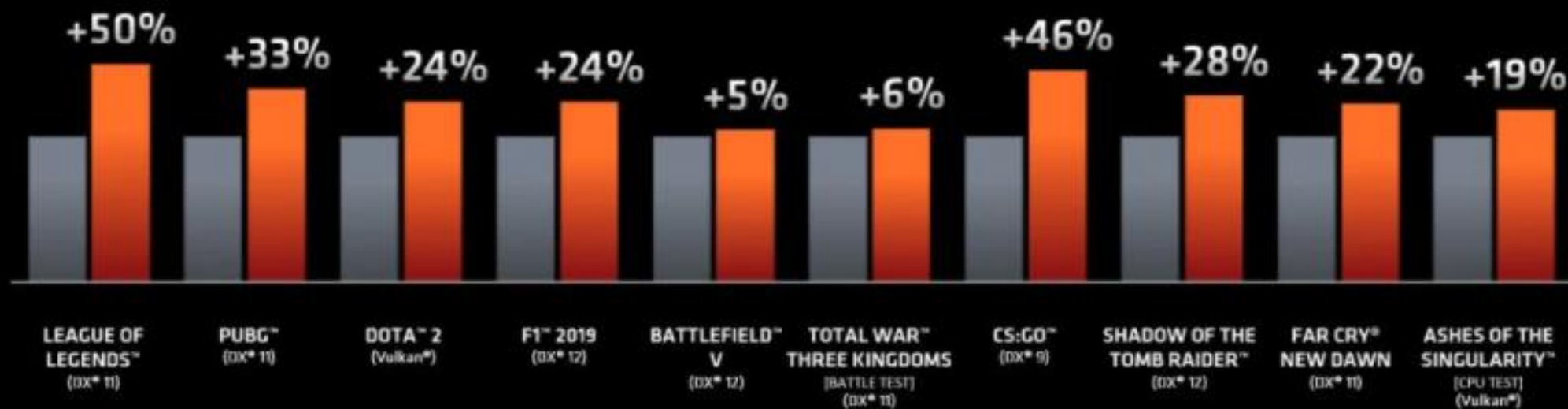
- ❑ AMD Ryzen™ 5000 Series processors power the next generation of demanding games, providing one of a kind immersive experiences.
- ❑ AMD Ryzen™ 5000 G-Series processors feature the fastest graphics performance⁴ available in a desktop processor or pair with a graphics card.
- ❑ With great processing power comes the bleeding-edge technologies to support. All AMD Ryzen™ 5000 Series processors come with a full suite of technologies designed to elevate a PC's processing power.

AMD Ryzen™ 9 5900X Gaming Performance⁵

1920x1080 Resolution

High Image Quality Preset

■ AMD Ryzen™ 9 3900XT ■ AMD Ryzen™ 9 5900X



The background is a solid dark blue color. It is decorated with various light blue geometric elements: several thin diagonal lines of varying lengths, and several circles of different sizes. Some of these circles are solid, while others are just outlines. The overall aesthetic is modern and minimalist.

THANK YOU