

www.phoronix-test-suite.com

AMD Ryzen 5 5600X Series Linux Gaming

Radeon RX 5700 XT for latest open-source driver support tested on various CPUs for AMD Ryzen 5000 Zen 3 Linux reviews. Benchmarks for a future article on Phoronix.com. NOTE: the same governor (Performance) was used throughout testing and manually set prior to run. But due to GameMode by default on Ubuntu it interfered with the reporting on some runs when querying the governor after testing for the system table below. But anyhow just confirming the performance governor was set during the testing and in a consistent manner between CPUs.

Automated Executive Summary

Ryzen 9 5950X had the most wins, coming in first place for 61% of the tests.

Based on the geometric mean of all complete results, the fastest (Ryzen 9 5950X) was 1.642x the speed of the slowest (Ryzen 5 2600). Ryzen 9 5900X was 0.995x the speed of Ryzen 9 5950X, Ryzen 5 5600X was 0.978x the speed of Ryzen 9 5900X, Core i9 10900K was 0.966x the speed of Ryzen 5 5600X, Ryzen 9 3900XT was 0.869x the speed of Core i9 10900K, Ryzen 9 3950X was 0.999x the speed of Ryzen 9 3900XT, Ryzen 7 3800XT was 0.998x the speed of Ryzen 9 3950X, Ryzen 5 3600X was 0.962x the speed of Ryzen 7 3800XT, Ryzen 5 2600X was 0.837x the speed of Ryzen 5 3600X, Ryzen 5 2600 was 0.928x the speed of Ryzen 5 2600X.

The results with the greatest spread from best to worst included:

A Total War Saga: THRONES OF BRITANNIA (Resolution: 1920 x 1080 - Graphics Preset: Ultra - Total Frame Time) at 93.231x

HITMAN 2 (Resolution: 1920 x 1080 - Quality Level: Medium - Total Frame Time) at 40.478x
X-Plane (Resolution: 1920 x 1080 - Quality: Medium - Renderer: Vulkan - Per Frame Timing) at 29.073x
HITMAN 2 (Resolution: 1920 x 1080 - Quality Level: Ultra - Total Frame Time) at 17.319x
X-Plane (Resolution: 1920 x 1080 - Quality: Very High - Renderer: Vulkan - Per Frame Timing) at 6.323x
F1 2017 (Resolution: 1920 x 1080 - Graphics Preset: Medium - Anti Aliasing: TAA) at 2.069x
X-Plane (Resolution: 1920 x 1080 - Quality: Medium - Renderer: Vulkan) at 1.984x
X-Plane (Resolution: 1920 x 1080 - Quality: Very High - Renderer: Vulkan) at 1.931x
A Total War Saga: THRONES OF BRITANNIA (Resolution: 1920 x 1080 - Graphics Preset: Medium) at 1.75x
Unigine Superposition (Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL) at 1.726x.

Test Systems:

Core i9 10900K

Processor: Intel Core i9-10900K @ 5.30GHz (10 Cores / 20 Threads), Motherboard: Gigabyte Z490 AORUS MASTER (F3 BIOS), Chipset: Intel Comet Lake PCH, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Intel Device 15f3 + Intel Wi-Fi 6 AX201

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xc8
Java Notes: OpenJDK Runtime Environment (build 11.0.8+10-post-Ubuntu-0ubuntu120.04)
Python Notes: Python 2.7.18 + Python 3.8.5
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 5 2600

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2206 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 5 2600X

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2206 BIOS), Chipset: AMD 17h, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x800820d
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 5 3600X

Processor: AMD Ryzen 5 3600X 6-Core @ 3.80GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2206 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x8701021
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 7 3800XT

Processor: AMD Ryzen 7 3800XT 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2206 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0x8701021
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 9 3900XT

Processor: AMD Ryzen 9 3900XT 12-Core @ 3.80GHz (12 Cores / 24 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2206 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6

AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x8701021
Java Notes: OpenJDK Runtime Environment (build 11.0.8+10-post-Ubuntu-0ubuntu120.04)
Python Notes: Python 2.7.18 + Python 3.8.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 9 3950X

Processor: AMD Ryzen 9 3950X 16-Core @ 3.50GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2206 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0x8701021
Java Notes: OpenJDK Runtime Environment (build 11.0.8+10-post-Ubuntu-0ubuntu120.04)
Python Notes: Python 2.7.18 + Python 3.8.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 5 5600X

Processor: AMD Ryzen 5 5600X 6-Core @ 3.70GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Processor Notes: Scaling Governor: acpi-cpufreq performance - CPU Microcode: 0xa201009
Graphics Notes: GLAMOR
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 9 5900X

Processor: AMD Ryzen 9 5900X 12-Core @ 3.70GHz (12 Cores / 24 Threads), Motherboard: ASUS ROG CROSSHAIR

VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0xa201009
Java Notes: OpenJDK Runtime Environment (build 11.0.8+10-post-Ubuntu-0ubuntu120.04)
Python Notes: Python 2.7.18 + Python 3.8.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 9 5950X

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (WI-FI) (2311 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 2000GB Corsair Force MP600 + 2000GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (2100/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.9.0-050900-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 20.3.0-devel (git-442f48f 2020-10-15 focal-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand - CPU Microcode: 0xa201009
Java Notes: OpenJDK Runtime Environment (build 11.0.8+10-post-Ubuntu-0ubuntu120.04)
Python Notes: Python 2.7.18 + Python 3.8.5
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

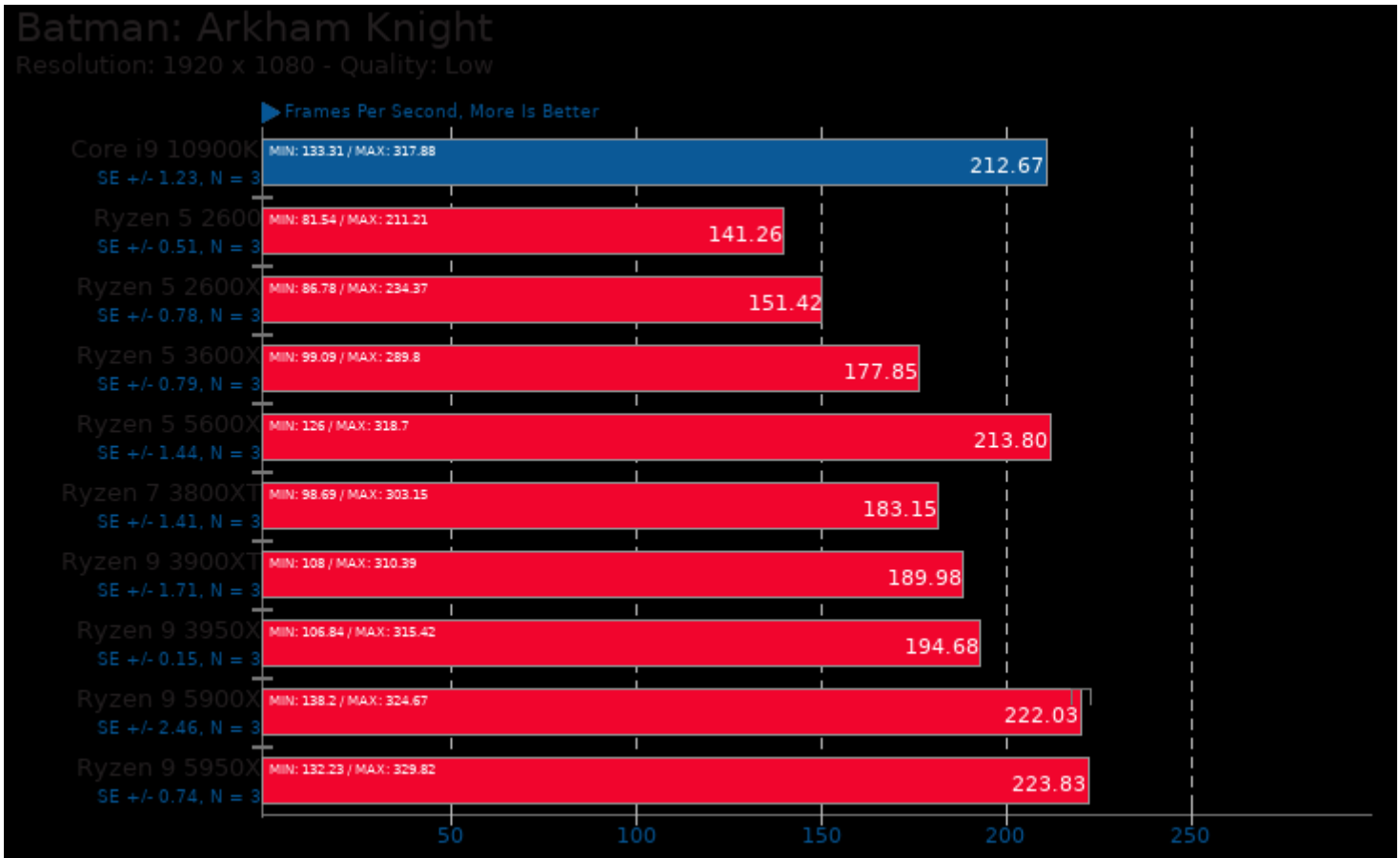
	Core i9 10900K	Ryzen 5 2600	Ryzen 5 2600X	Ryzen 5 3600X	Ryzen 7 3800XT	Ryzen 9 3900XT	Ryzen 9 3950X	Ryzen 5 5600X	Ryzen 9 5900X	Ryzen 9 5950X
Batman: Arkham Knight - 1920 x 1080 - Low (FPS)	212.67	**141.26**	151.42	177.85	183.15	189.98	194.68	213.80	222.03	**223.83**
Normalized	95.01%	63.11%	67.65%	79.46%	81.83%	84.88%	86.98%	95.52%	99.2%	100%
Standard Deviation	1%	0.6%	0.9%	0.8%	1.3%	1.6%	0.1%	1.2%	1.9%	0.6%

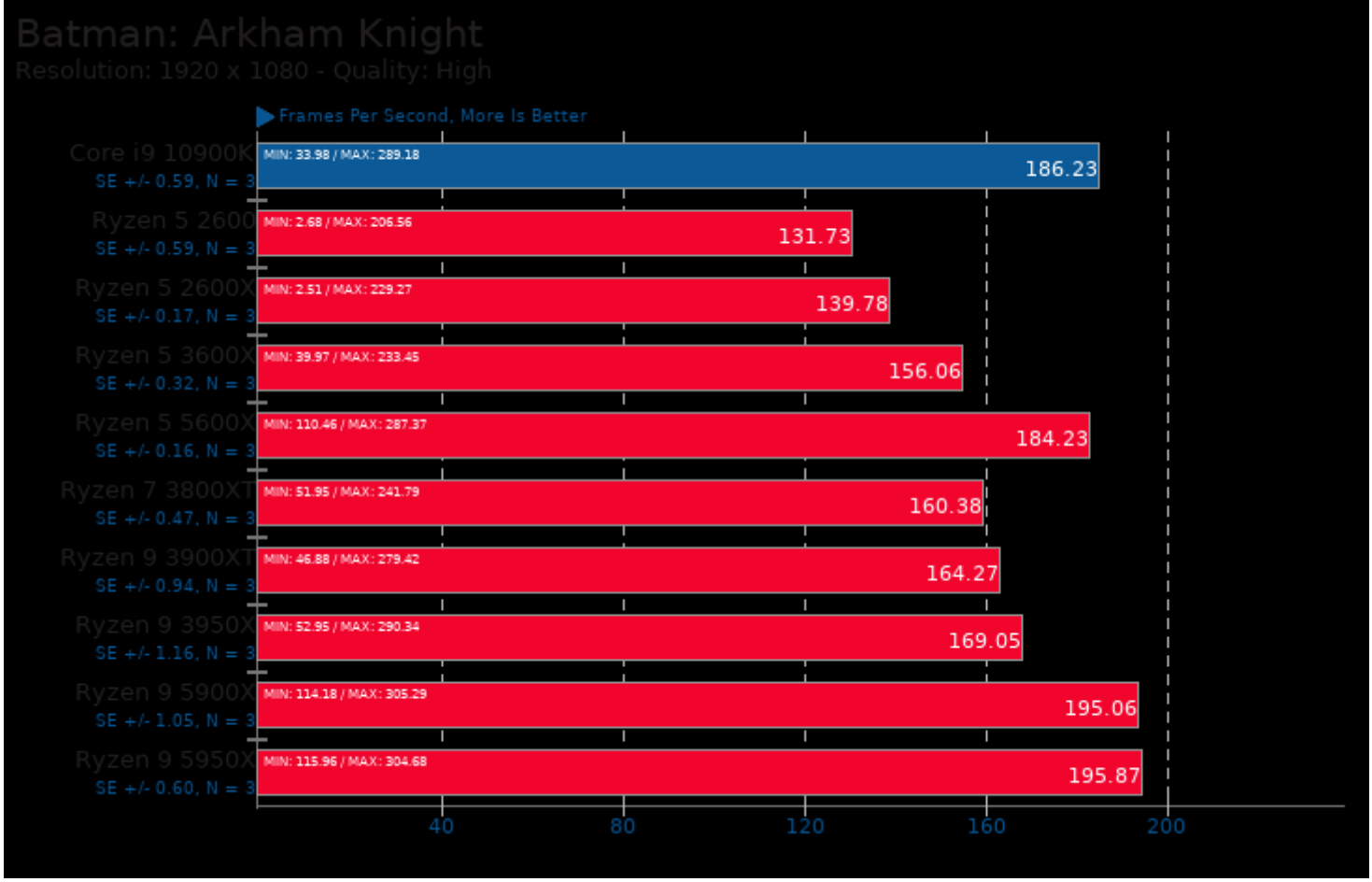
AMD Ryzen 5 5600X Series Linux Gaming

Batman: Arkham Knight - 1920 x 1080 - High (FPS)	186.23	131.73	139.78	156.06	160.38	164.27	169.05	184.23	195.06	195.87
Normalized	95.08%	67.25%	71.36%	79.68%	81.88%	83.87%	86.31%	94.06%	99.59%	100%
Standard Deviation	0.5%	0.8%	0.2%	0.4%	0.5%	1%	1.2%	0.2%	0.9%	0.5%
Dota 2 - 1920 x 1080 - Vulkan (FPS)	156.7	101.5	108.6	128.3	135.0	134.8	133.7	169.4	173.1	173.8
Normalized	90.16%	58.4%	62.49%	73.82%	77.68%	77.56%	76.93%	97.47%	99.6%	100%
Standard Deviation	2%	2.1%	1.7%	0.6%	1.2%	1.2%	2.7%	2.7%	1%	1.3%
Dawn of War III - 1920 x 1080 - Ultra - Vulkan (FPS)	112.7532 10	68.013173	74.515411	92.766334	96.500611	96.586395	94.204748	107.529696	112.494440	112.850535
Normalized	99.91%	60.27%	66.03%	82.2%	85.51%	85.59%	83.48%	95.29%	99.68%	100%
Standard Deviation	0.2%	0.4%	0.2%	0.4%	0.1%	0.5%	2.9%	0.6%	1.2%	0.9%
ET: Legacy - Renderer2 - 1920 x 1080 (FPS)	308.4	201.0	227.2	264.1	276.0	273.5	267.1	313.8	319.6	315.3
Normalized	96.5%	62.89%	71.09%	82.63%	86.36%	85.58%	83.57%	98.19%	100%	98.65%
Standard Deviation	2.8%	0.9%	1.8%	1.1%	0.7%	2%	1.7%	0.9%	1.5%	0.6%
F1 2017 - 1920 x 1080 - Medium - TAA (FPS)	173	102	109	131	140	150	149	167	203	211
Normalized	81.99%	48.34%	51.66%	62.09%	66.35%	71.09%	70.62%	79.15%	96.21%	100%
Standard Deviation	1.7%	1.5%				2.5%	2.8%		2.9%	3.2%
HITMAN 2 - 1920 x 1080 - Ultra (FPS)	111.81	73.84	78.31	90.40	94.82	94.94	96.48	112.79	114.02	114.20
Normalized	97.91%	64.66%	68.57%	79.16%	83.03%	83.13%	84.48%	98.77%	99.84%	100%
Standard Deviation	0.4%	0.4%	0.1%	0.6%	0.3%	0.1%	0.5%	0.3%	0.6%	0.3%
HITMAN 2 - 1920 x 1080 - Medium (FPS)	118.97	79.14	83.58	96.39	100.49	101.29	102.14	121.48	122.96	123.27
Normalized	96.51%	64.2%	67.8%	78.19%	81.52%	82.17%	82.86%	98.55%	99.75%	100%
Standard Deviation	0.1%	0.4%	0.3%	0.3%	0.2%	0.4%	0.4%	1.8%	0.3%	0.2%
A Total War Saga: THRONES OF BRITANNIA - 1920 x 1080 - Ultra (FPS)	97.7	71.8	74.5	85.7	89.9	86.6	88.4	103.2	100.3	101.2
Normalized	94.67%	69.57%	72.19%	83.04%	87.11%	83.91%	85.66%	100%	97.19%	98.06%
Standard Deviation	0.2%	1.1%	1.3%	0.8%	2%	0.3%	1.9%	0.1%	0.9%	1.5%
A Total War Saga: THRONES OF BRITANNIA - 1920 x 1080 - Medium (FPS)	175.4	112.9	120.2	146.1	151.5	147.0	148.0	197.6	185.8	187.5
Normalized	88.77%	57.14%	60.83%	73.94%	76.67%	74.39%	74.9%	100%	94.03%	94.89%
Standard Deviation	1.7%	1.7%	1.7%	1%	2.9%	1.2%	1.5%	1%	2%	0.5%

AMD Ryzen 5 5600X Series Linux Gaming

Total War: WARHAMMER II - 1920 x 1080 - Ultra - Skaven Battle (FPS)	91.0	**65.6**	70.4	84.7	86.1	87.0	85.1	93.6	93.6	**95.2**
Normalized	95.59%	68.91%	73.95%	88.97%	90.44%	91.39%	89.39%	98.32%	98.32%	100%
Standard Deviation	0.7%	0.8%	1.1%	0.7%	0.3%	1.4%	0.2%	0.8%	0.4%	1.7%
Total War: WARHAMMER II - 1920 x 1080 - Medium - Skaven Battle (FPS)	165.4	**114.4**	123.4	153.8	155.7	157.0	155.8	168.6	170.0	**171.2**
Normalized	96.61%	66.82%	72.08%	89.84%	90.95%	91.71%	91%	98.48%	99.3%	100%
Standard Deviation	0.3%	1.6%	1.4%	1%	0.3%	0.5%	0.4%	0.3%	0.8%	1.9%
Unigine Superposition - 1920 x 1080 - Fullscreen - Low -	235.9	**145.1**	157.6	195.2	200.1	197.7	195.4	**250.4**	240.0	240.4
Normalized	94.21%	57.95%	62.94%	77.96%	79.91%	78.95%	78.04%	100%	95.85%	96.01%
Standard Deviation	0.6%	0.7%	0.4%	0.1%	0.6%	0.7%	2.5%	0.1%	0.6%	2.1%
Xonotic - 1920 x 1080 - Ultimate (FPS)	359.8018936	**249.3835544**	272.8490595	337.9368559	354.1773089	352.2314087	344.4115835	423.2722014	**424.7549127**	422.6452638
Normalized	84.71%	58.71%	64.24%	79.56%	83.38%	82.93%	81.08%	99.65%	100%	99.5%
Standard Deviation	1%	0.5%	1.4%	0.5%	0.4%	1%	1.3%	0.8%	0.7%	0.2%
X-Plane - 1920 x 1080 - Medium - Vulkan (FPS)	183.70	**99.69**	109.46	135.12	140.97	139.93	138.96	194.24	**197.80**	193.78
Normalized	92.87%	50.4%	55.34%	68.31%	71.27%	70.74%	70.25%	98.2%	100%	97.97%
Standard Deviation	1%	0.4%	1.2%	0.4%	0.5%	0.5%	2.1%	0.5%	0.6%	1.6%
X-Plane - 1920 x 1080 - Very High - Vulkan (FPS)	107.15	**61.24**	66.77	80.65	83.79	83.52	84.06	108.67	116.31	**118.26**
Normalized	90.61%	51.78%	56.46%	68.2%	70.85%	70.62%	71.08%	91.89%	98.35%	100%
Standard Deviation	0.5%	0.5%	0.7%	0.3%	0.2%	0.6%	0.3%	0.7%	0.2%	0.6%


Batman: Arkham Knight
Resolution: 1920 x 1080 - Quality: Low
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 1.23, N = 3
MIN: 133.31 / MAX: 317.88
212.67
Ryzen 5 2600
SE +/- 0.51, N = 3
MIN: 81.54 / MAX: 211.21
141.26
Ryzen 5 2600X
SE +/- 0.78, N = 3
MIN: 86.78 / MAX: 234.37
151.42
Ryzen 5 3600X
SE +/- 0.79, N = 3
MIN: 99.09 / MAX: 289.8
177.85
Ryzen 5 5600X
SE +/- 1.44, N = 3
MIN: 126 / MAX: 318.7
213.80
Ryzen 7 3800XT
SE +/- 1.41, N = 3
MIN: 98.69 / MAX: 303.15
183.15
Ryzen 9 3900XT
SE +/- 1.71, N = 3
MIN: 108 / MAX: 310.39
189.98
Ryzen 9 3950X
SE +/- 0.15, N = 3
MIN: 106.84 / MAX: 315.42
194.68
Ryzen 9 5900X
SE +/- 2.46, N = 3
MIN: 138.2 / MAX: 324.67
222.03
Ryzen 9 5950X
SE +/- 0.74, N = 3
MIN: 132.23 / MAX: 329.82
223.83
50
100
150
200
250

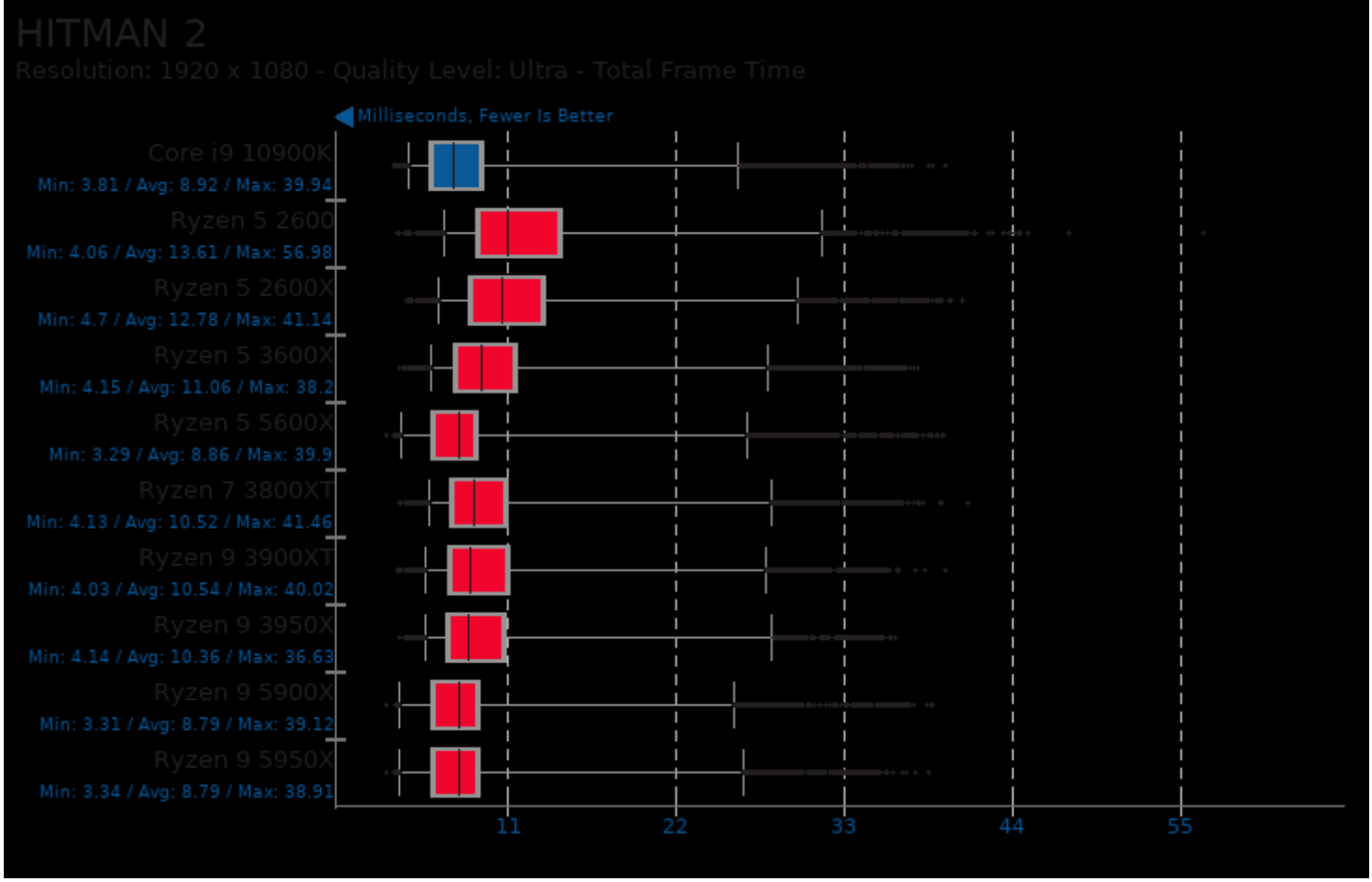

Batman: Arkham Knight
Resolution: 1920 x 1080 - Quality: High
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.59, N = 3
MIN: 33.98 / MAX: 289.18
186.23
Ryzen 5 2600
SE +/- 0.59, N = 3
MIN: 2.68 / MAX: 206.56
131.73
Ryzen 5 2600X
SE +/- 0.17, N = 3
MIN: 2.51 / MAX: 229.27
139.78
Ryzen 5 3600X
SE +/- 0.32, N = 3
MIN: 39.97 / MAX: 233.45
156.06
Ryzen 5 5600X
SE +/- 0.16, N = 3
MIN: 110.46 / MAX: 287.37
184.23
Ryzen 7 3800XT
SE +/- 0.47, N = 3
MIN: 51.95 / MAX: 241.79
160.38
Ryzen 9 3900XT
SE +/- 0.94, N = 3
MIN: 46.88 / MAX: 279.42
164.27
Ryzen 9 3950X
SE +/- 1.16, N = 3
MIN: 52.95 / MAX: 290.34
169.05
Ryzen 9 5900X
SE +/- 1.05, N = 3
MIN: 114.18 / MAX: 305.29
195.06
Ryzen 9 5950X
SE +/- 0.60, N = 3
MIN: 115.96 / MAX: 304.68
195.87
40
80
120
160
200


Dota 2
Resolution: 1920 x 1080 - Renderer: Vulkan
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 1.78, N = 3
MIN: 153.1 / MAX: 158.5
156.7
Ryzen 5 2600
SE +/- 1.25, N = 3
MIN: 99.5 / MAX: 103.8
101.5
Ryzen 5 2600X
SE +/- 1.08, N = 3
MIN: 106.5 / MAX: 110.1
108.6
Ryzen 5 3600X
SE +/- 0.43, N = 3
MIN: 127.4 / MAX: 128.7
128.3
Ryzen 5 5600X
SE +/- 2.66, N = 3
MIN: 164.1 / MAX: 172.7
169.4
Ryzen 7 3800XT
SE +/- 0.96, N = 3
MIN: 133.5 / MAX: 136.8
135.0
Ryzen 9 3900XT
SE +/- 0.97, N = 3
MIN: 132.9 / MAX: 135.9
134.8
Ryzen 9 3950X
SE +/- 2.05, N = 3
MIN: 129.6 / MAX: 136.2
133.7
Ryzen 9 5900X
SE +/- 0.98, N = 3
MIN: 171.2 / MAX: 174.4
173.1
Ryzen 9 5950X
SE +/- 1.29, N = 3
MIN: 171.4 / MAX: 175.8
173.8
40
80
120
160
200
Dawn of War III
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Renderer: Vulkan
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.15, N = 3
MIN: 79.52 / MAX: 230.08
112.75
Ryzen 5 2600
SE +/- 0.16, N = 3
MIN: 49.21 / MAX: 130.87
68.01
Ryzen 5 2600X
SE +/- 0.09, N = 3
MIN: 52.74 / MAX: 150.4
74.52
Ryzen 5 3600X
SE +/- 0.20, N = 3
MIN: 65.54 / MAX: 207.17
92.77
Ryzen 5 5600X
SE +/- 0.39, N = 3
MIN: 70.8 / MAX: 239
107.53
Ryzen 7 3800XT
SE +/- 0.05, N = 3
MIN: 68.59 / MAX: 210.79
96.50
Ryzen 9 3900XT
SE +/- 0.29, N = 3
MIN: 67.39 / MAX: 203.8
96.59
Ryzen 9 3950X
SE +/- 1.36, N = 4
MIN: 65.28 / MAX: 203.19
94.20
Ryzen 9 5900X
SE +/- 0.79, N = 3
MIN: 73.41 / MAX: 250.5
112.49
Ryzen 9 5950X
SE +/- 0.59, N = 3
MIN: 73.49 / MAX: 251
112.85
30
60
90
120
150

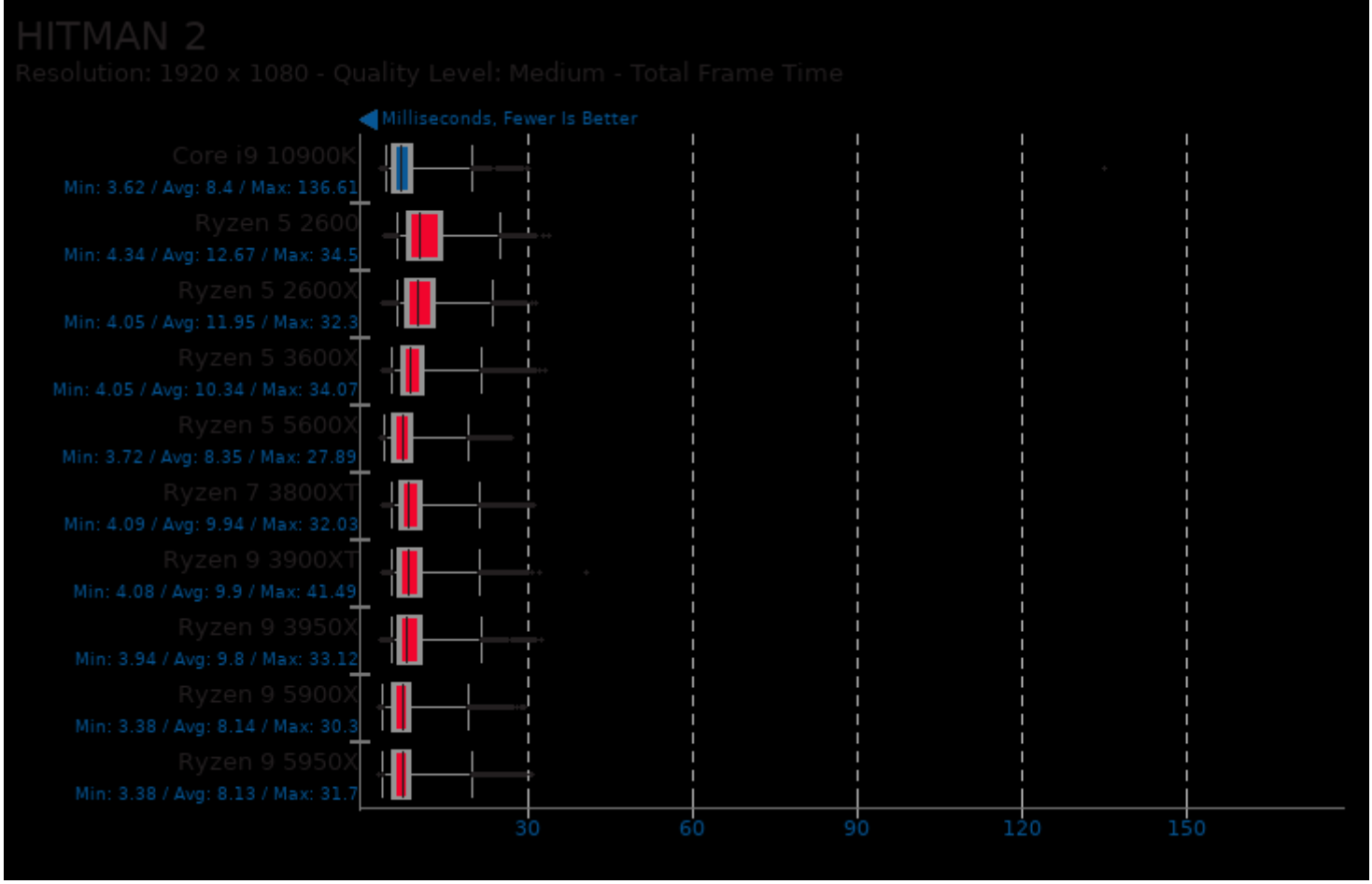

ET: Legacy 2.75
Renderer: Renderer2 - Resolution: 1920 x 1080
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 5.00, N = 3
308.4
Ryzen 5 2600
SE +/- 1.01, N = 3
201.0
Ryzen 5 2600X
SE +/- 2.32, N = 3
227.2
Ryzen 5 3600X
SE +/- 1.71, N = 3
264.1
Ryzen 5 5600X
SE +/- 1.58, N = 3
313.8
Ryzen 7 3800XT
SE +/- 1.07, N = 3
276.0
Ryzen 9 3900XT
SE +/- 3.13, N = 3
273.5
Ryzen 9 3950X
SE +/- 2.57, N = 3
267.1
Ryzen 9 5900X
SE +/- 2.80, N = 3
319.6
Ryzen 9 5950X
SE +/- 1.09, N = 3
315.3
70
140
210
280
350
F1 2017
Resolution: 1920 x 1080 - Graphics Preset: Medium - Anti Aliasing: TAA
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 1.67, N = 3
MIN: 128 / MAX: 232
173
Ryzen 5 2600
SE +/- 0.88, N = 3
MIN: 77 / MAX: 126
102
Ryzen 5 2600X
MIN: 82 / MAX: 134
109
Ryzen 5 3600X
MIN: 100 / MAX: 167
131
Ryzen 5 5600X
MIN: 121 / MAX: 216
167
Ryzen 7 3800XT
MIN: 106 / MAX: 185
140
Ryzen 9 3900XT
SE +/- 1.89, N = 4
MIN: 105 / MAX: 204
150
Ryzen 9 3950X
SE +/- 2.40, N = 3
MIN: 107 / MAX: 200
149
Ryzen 9 5900X
SE +/- 1.85, N = 10
MIN: 125 / MAX: 312
203
Ryzen 9 5950X
SE +/- 1.92, N = 12
MIN: 130 / MAX: 302
211
50
100
150
200
250

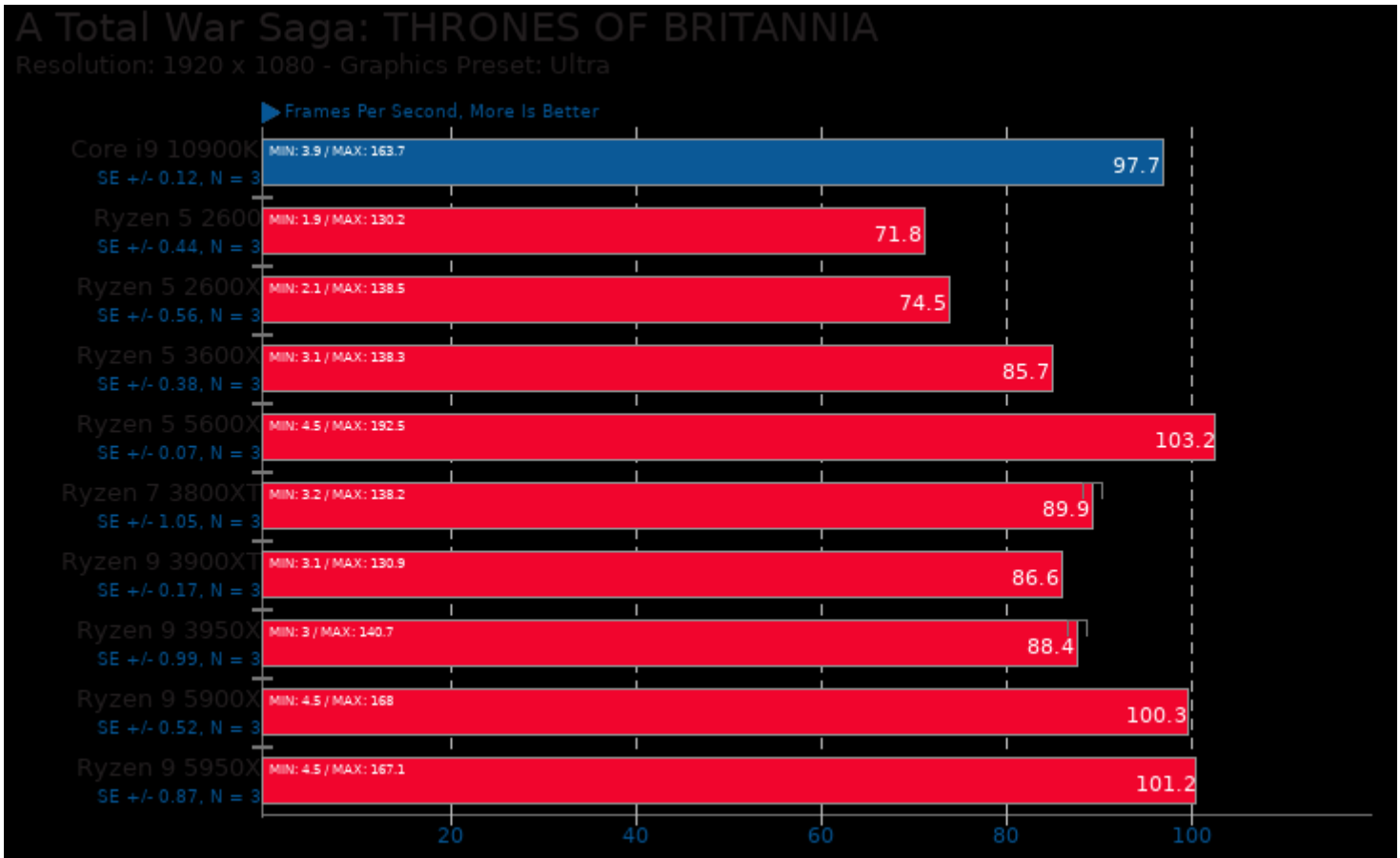
AMD Ryzen 5 5600X Series Linux Gaming

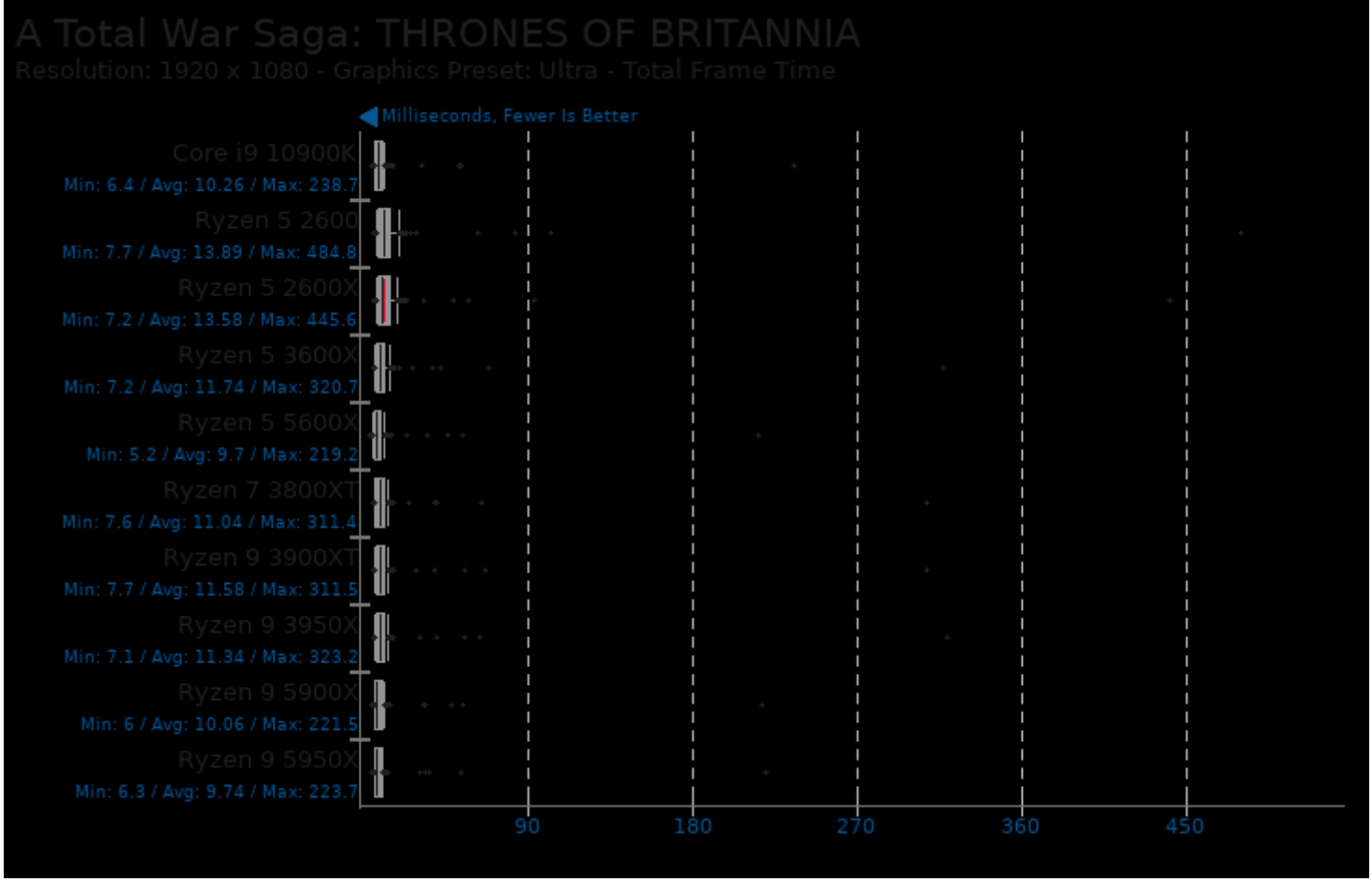


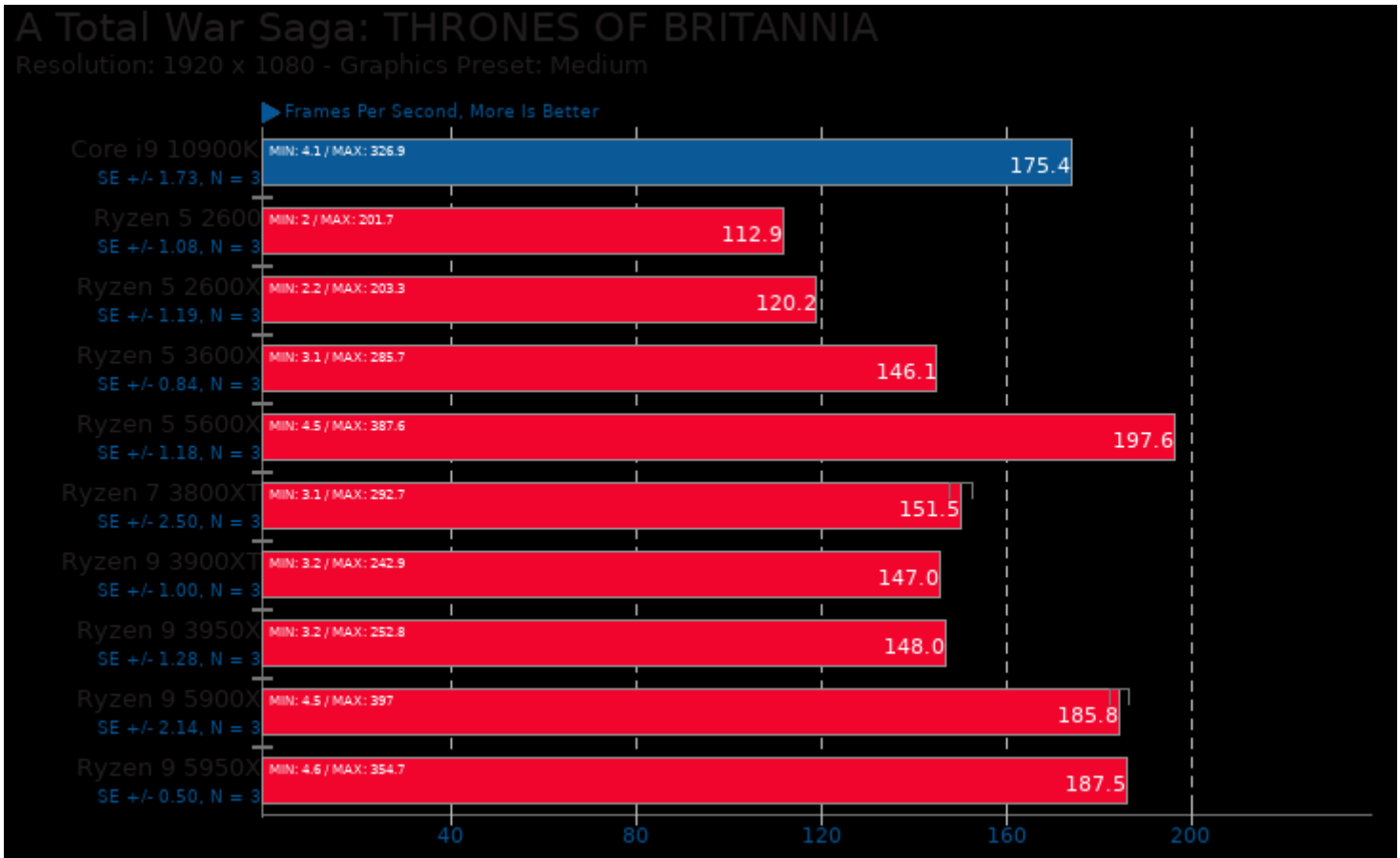


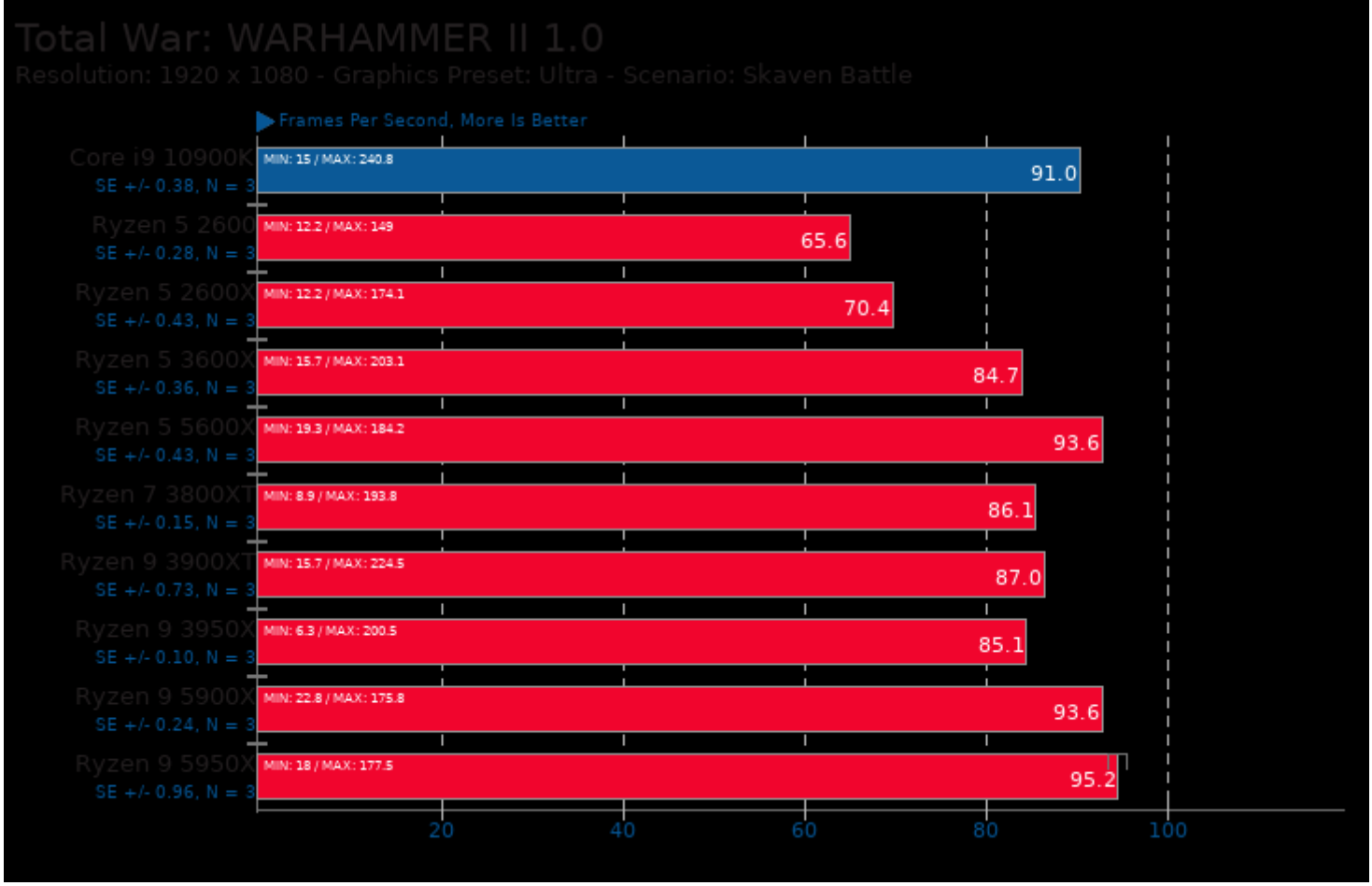

HITMAN 2
Resolution: 1920 x 1080 - Quality Level: Medium
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.04, N = 3
MIN: 118.9 / MAX: 119.01
118.97
Ryzen 5 2600
SE +/- 0.20, N = 3
MIN: 78.93 / MAX: 79.53
79.14
Ryzen 5 2600X
SE +/- 0.13, N = 3
MIN: 83.33 / MAX: 83.72
83.58
Ryzen 5 3600X
SE +/- 0.19, N = 3
MIN: 96.12 / MAX: 96.75
96.39
Ryzen 5 5600X
SE +/- 1.28, N = 3
MIN: 119.78 / MAX: 124
121.48
Ryzen 7 3800XT
SE +/- 0.10, N = 3
MIN: 100.28 / MAX: 100.62
100.49
Ryzen 9 3900XT
SE +/- 0.23, N = 3
MIN: 100.96 / MAX: 101.73
101.29
Ryzen 9 3950X
SE +/- 0.22, N = 3
MIN: 101.81 / MAX: 102.55
102.14
Ryzen 9 5900X
SE +/- 0.24, N = 3
MIN: 122.57 / MAX: 123.41
122.96
Ryzen 9 5950X
SE +/- 0.14, N = 3
MIN: 123 / MAX: 123.48
123.27
30
60
90
120
150

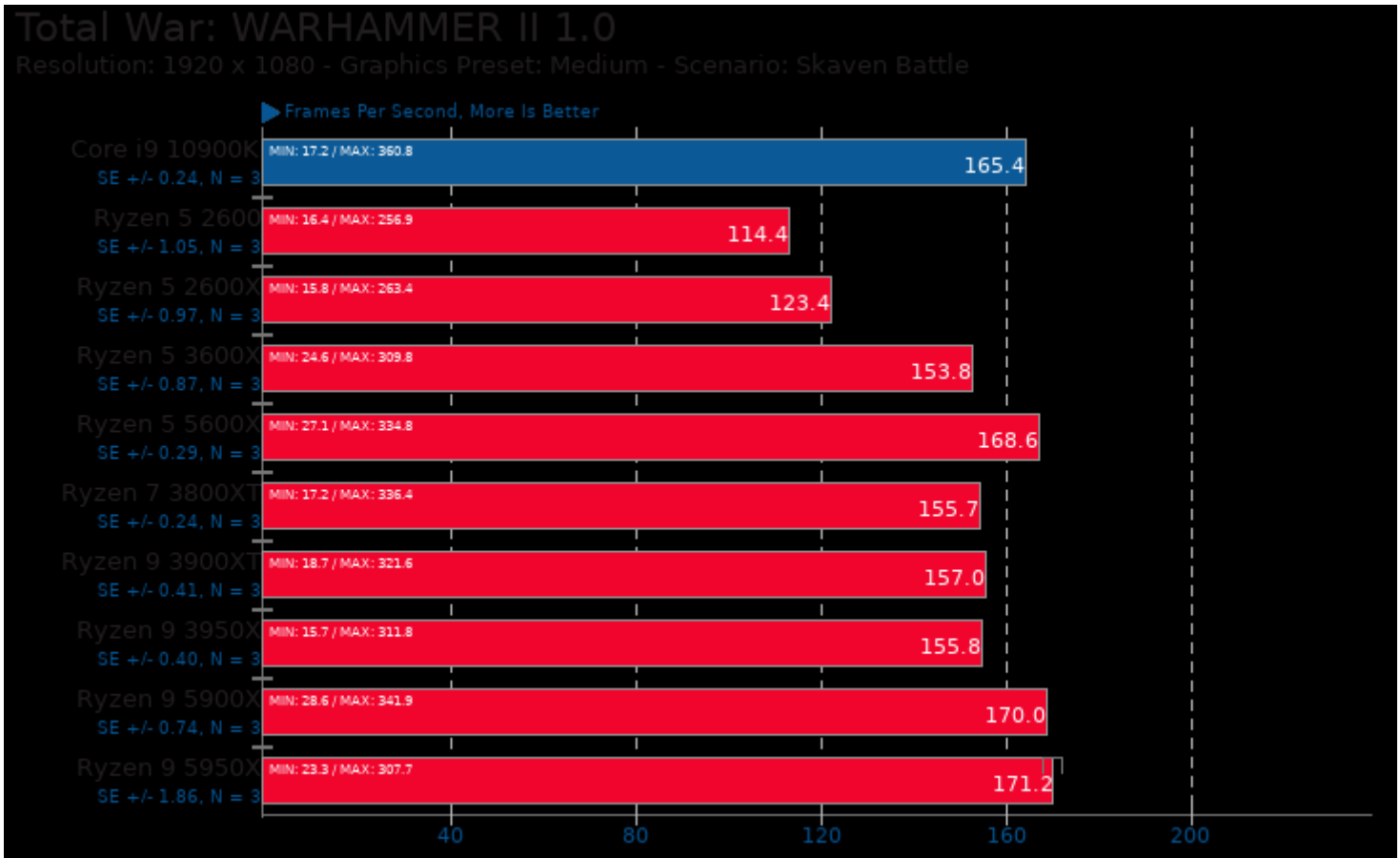

HITMAN 2
Resolution: 1920 x 1080 - Quality Level: Medium - Total Frame Time
Milliseconds, Fewer Is Better
Core i9 10900K
Min: 3.62 / Avg: 8.4 / Max: 136.61
Ryzen 5 2600
Min: 4.34 / Avg: 12.67 / Max: 34.5
Ryzen 5 2600X
Min: 4.05 / Avg: 11.95 / Max: 32.3
Ryzen 5 3600X
Min: 4.05 / Avg: 10.34 / Max: 34.07
Ryzen 5 5600X
Min: 3.72 / Avg: 8.35 / Max: 27.89
Ryzen 7 3800XT
Min: 4.09 / Avg: 9.94 / Max: 32.03
Ryzen 9 3900XT
Min: 4.08 / Avg: 9.9 / Max: 41.49
Ryzen 9 3950X
Min: 3.94 / Avg: 9.8 / Max: 33.12
Ryzen 9 5900X
Min: 3.38 / Avg: 8.14 / Max: 30.3
Ryzen 9 5950X
Min: 3.38 / Avg: 8.13 / Max: 31.7
30
60
90
120
150

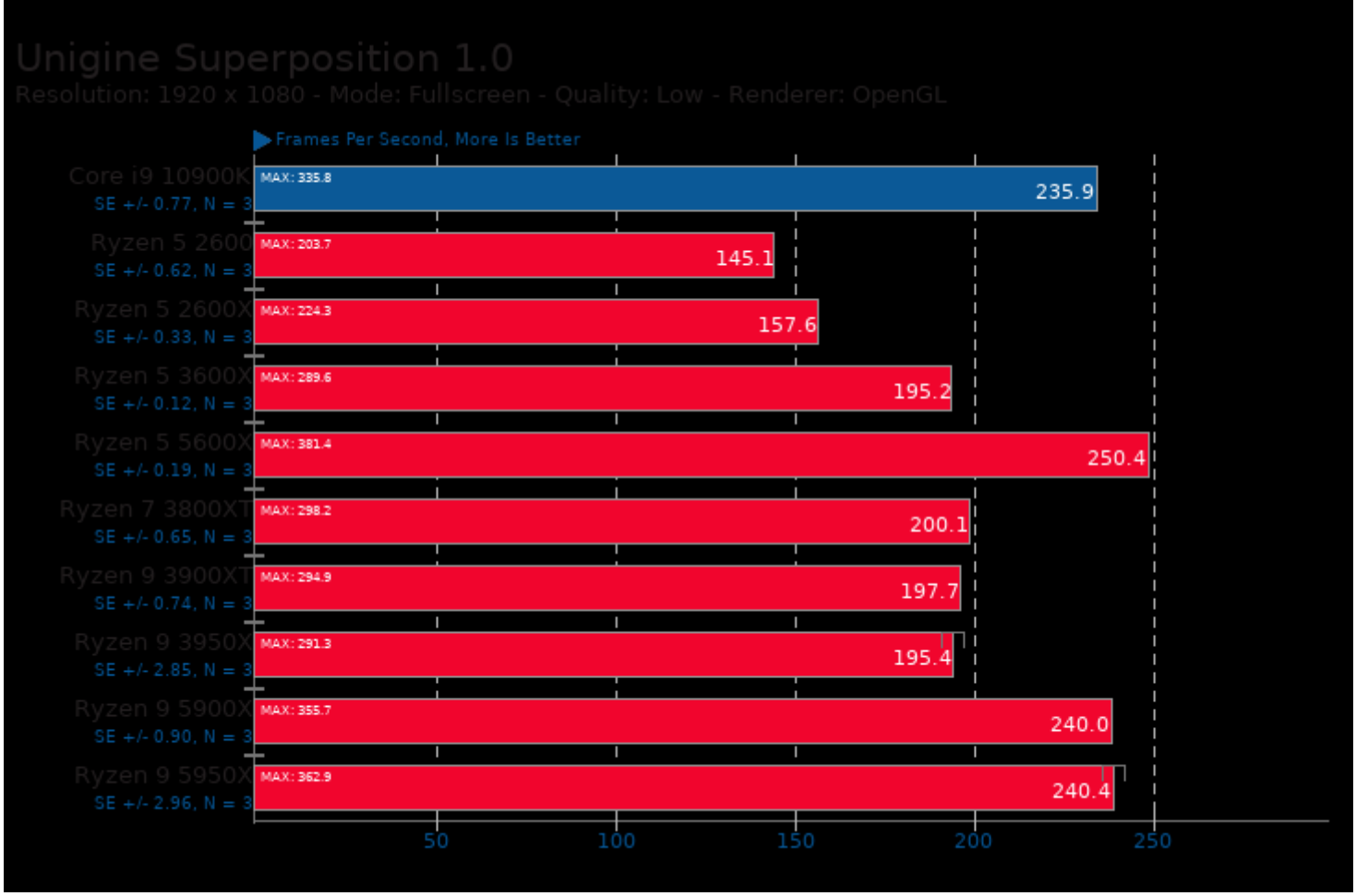

A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: Ultra
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.12, N = 3
MIN: 3.9 / MAX: 163.7
97.7
Ryzen 5 2600
SE +/- 0.44, N = 3
MIN: 1.9 / MAX: 130.2
71.8
Ryzen 5 2600X
SE +/- 0.56, N = 3
MIN: 2.1 / MAX: 138.5
74.5
Ryzen 5 3600X
SE +/- 0.38, N = 3
MIN: 3.1 / MAX: 138.3
85.7
Ryzen 5 5600X
SE +/- 0.07, N = 3
MIN: 4.5 / MAX: 192.5
103.2
Ryzen 7 3800XT
SE +/- 1.05, N = 3
MIN: 3.2 / MAX: 138.2
89.9
Ryzen 9 3900XT
SE +/- 0.17, N = 3
MIN: 3.1 / MAX: 130.9
86.6
Ryzen 9 3950X
SE +/- 0.99, N = 3
MIN: 3 / MAX: 140.7
88.4
Ryzen 9 5900X
SE +/- 0.52, N = 3
MIN: 4.5 / MAX: 168
100.3
Ryzen 9 5950X
SE +/- 0.87, N = 3
MIN: 4.5 / MAX: 167.1
101.2
20
40
60
80
100


A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Total Frame Time
Milliseconds, Fewer Is Better
Core i9 10900K
Min: 6.4 / Avg: 10.26 / Max: 238.7
Ryzen 5 2600
Min: 7.7 / Avg: 13.89 / Max: 484.8
Ryzen 5 2600X
Min: 7.2 / Avg: 13.58 / Max: 445.6
Ryzen 5 3600X
Min: 7.2 / Avg: 11.74 / Max: 320.7
Ryzen 5 5600X
Min: 5.2 / Avg: 9.7 / Max: 219.2
Ryzen 7 3800XT
Min: 7.6 / Avg: 11.04 / Max: 311.4
Ryzen 9 3900XT
Min: 7.7 / Avg: 11.58 / Max: 311.5
Ryzen 9 3950X
Min: 7.1 / Avg: 11.34 / Max: 323.2
Ryzen 9 5900X
Min: 6 / Avg: 10.06 / Max: 221.5
Ryzen 9 5950X
Min: 6.3 / Avg: 9.74 / Max: 223.7
90
180
270
360
450

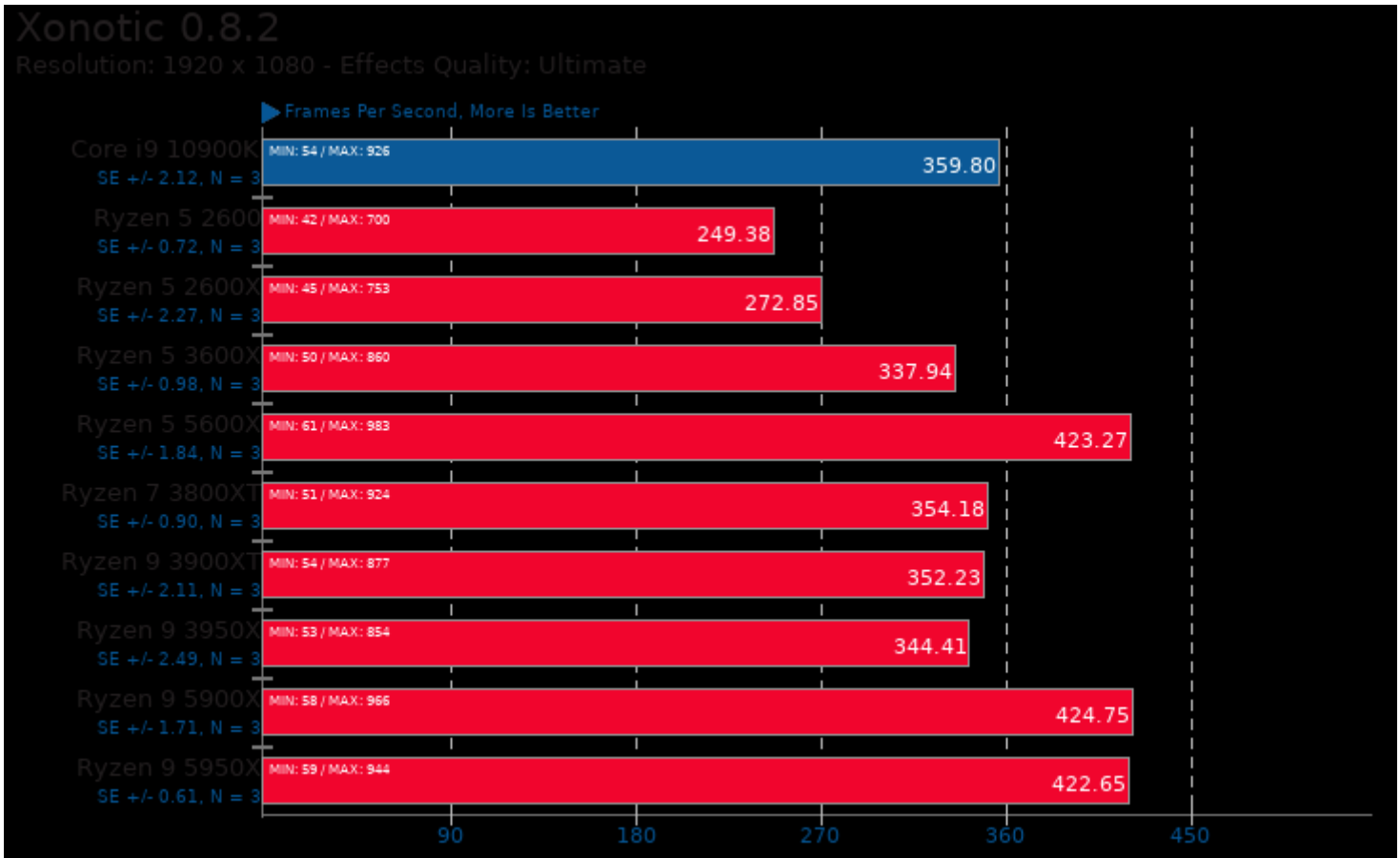

A Total War Saga: THRONES OF BRITANNIA
Resolution: 1920 x 1080 - Graphics Preset: Medium
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 1.73, N = 3
MIN: 4.1 / MAX: 326.9
175.4
Ryzen 5 2600
SE +/- 1.08, N = 3
MIN: 2 / MAX: 201.7
112.9
Ryzen 5 2600X
SE +/- 1.19, N = 3
MIN: 2.2 / MAX: 203.3
120.2
Ryzen 5 3600X
SE +/- 0.84, N = 3
MIN: 3.1 / MAX: 285.7
146.1
Ryzen 5 5600X
SE +/- 1.18, N = 3
MIN: 4.5 / MAX: 387.6
197.6
Ryzen 7 3800XT
SE +/- 2.50, N = 3
MIN: 3.1 / MAX: 292.7
151.5
Ryzen 9 3900XT
SE +/- 1.00, N = 3
MIN: 3.2 / MAX: 242.9
147.0
Ryzen 9 3950X
SE +/- 1.28, N = 3
MIN: 3.2 / MAX: 252.8
148.0
Ryzen 9 5900X
SE +/- 2.14, N = 3
MIN: 4.5 / MAX: 397
185.8
Ryzen 9 5950X
SE +/- 0.50, N = 3
MIN: 4.6 / MAX: 354.7
187.5
40
80
120
160
200

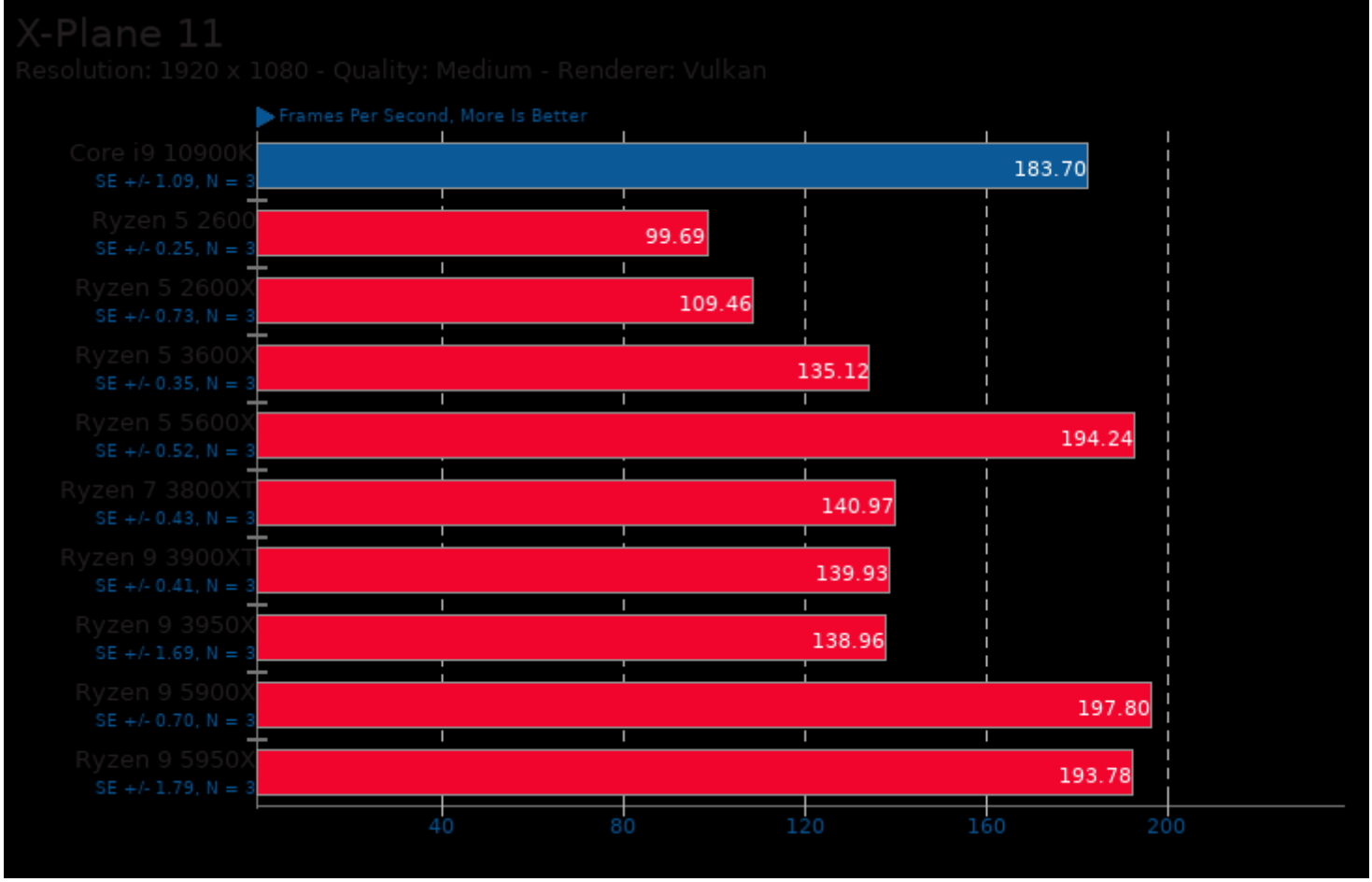

Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: Ultra - Scenario: Skaven Battle
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.38, N = 3
MIN: 15 / MAX: 240.8
91.0
Ryzen 5 2600
SE +/- 0.28, N = 3
MIN: 12.2 / MAX: 149
65.6
Ryzen 5 2600X
SE +/- 0.43, N = 3
MIN: 12.2 / MAX: 174.1
70.4
Ryzen 5 3600X
SE +/- 0.36, N = 3
MIN: 15.7 / MAX: 203.1
84.7
Ryzen 5 5600X
SE +/- 0.43, N = 3
MIN: 19.3 / MAX: 184.2
93.6
Ryzen 7 3800XT
SE +/- 0.15, N = 3
MIN: 8.9 / MAX: 193.8
86.1
Ryzen 9 3900XT
SE +/- 0.73, N = 3
MIN: 15.7 / MAX: 224.5
87.0
Ryzen 9 3950X
SE +/- 0.10, N = 3
MIN: 6.3 / MAX: 200.5
85.1
Ryzen 9 5900X
SE +/- 0.24, N = 3
MIN: 22.8 / MAX: 175.8
93.6
Ryzen 9 5950X
SE +/- 0.96, N = 3
MIN: 18 / MAX: 177.5
95.2
20
40
60
80
100

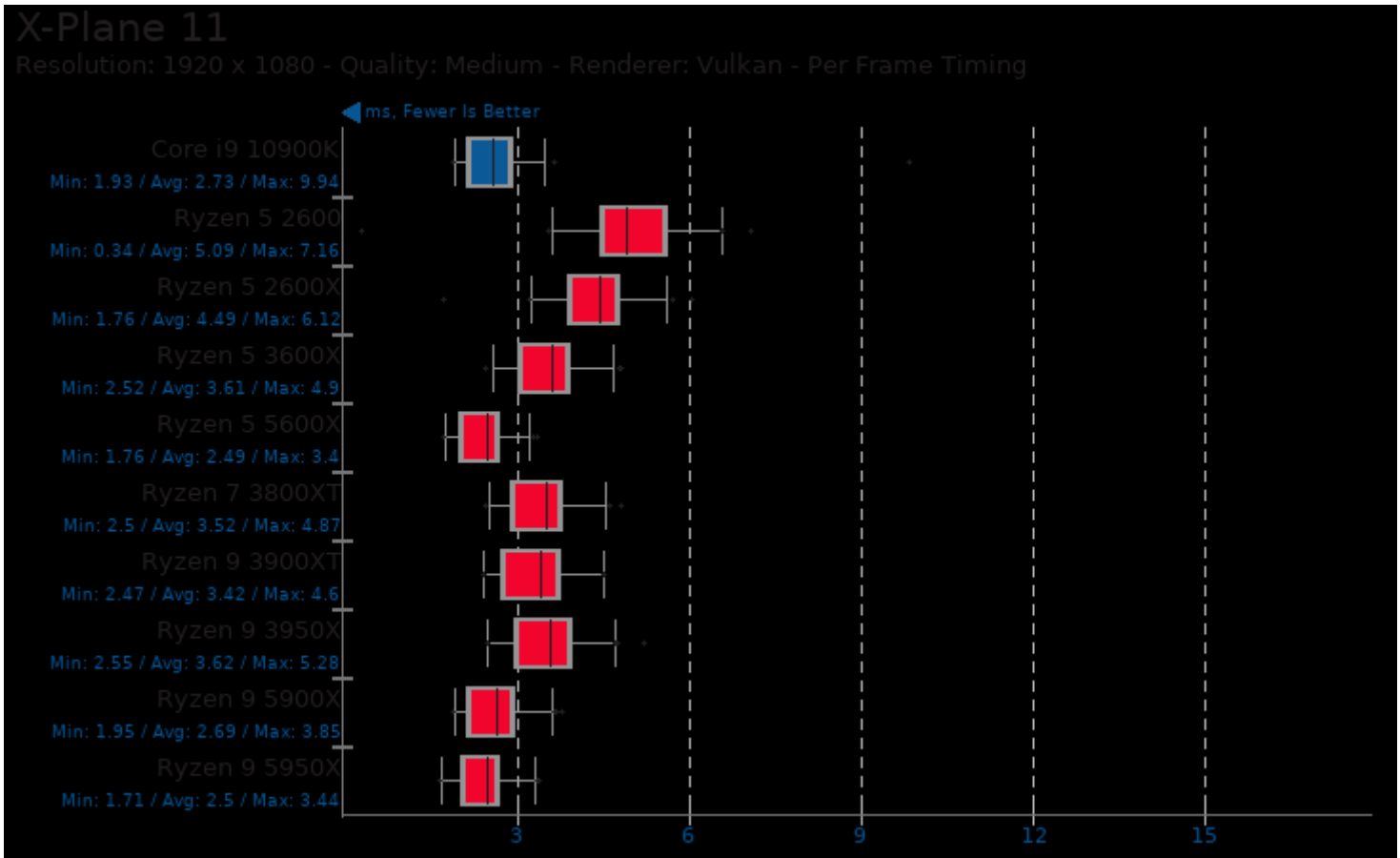

Total War: WARHAMMER II 1.0
Resolution: 1920 x 1080 - Graphics Preset: Medium - Scenario: Skaven Battle
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.24, N = 3
MIN: 17.2 / MAX: 360.8
165.4
Ryzen 5 2600
SE +/- 1.05, N = 3
MIN: 16.4 / MAX: 256.9
114.4
Ryzen 5 2600X
SE +/- 0.97, N = 3
MIN: 15.8 / MAX: 263.4
123.4
Ryzen 5 3600X
SE +/- 0.87, N = 3
MIN: 24.6 / MAX: 309.8
153.8
Ryzen 5 5600X
SE +/- 0.29, N = 3
MIN: 27.1 / MAX: 334.8
168.6
Ryzen 7 3800XT
SE +/- 0.24, N = 3
MIN: 17.2 / MAX: 336.4
155.7
Ryzen 9 3900XT
SE +/- 0.41, N = 3
MIN: 18.7 / MAX: 321.6
157.0
Ryzen 9 3950X
SE +/- 0.40, N = 3
MIN: 15.7 / MAX: 311.8
155.8
Ryzen 9 5900X
SE +/- 0.74, N = 3
MIN: 28.6 / MAX: 341.9
170.0
Ryzen 9 5950X
SE +/- 1.86, N = 3
MIN: 23.3 / MAX: 307.7
171.2
40
80
120
160
200

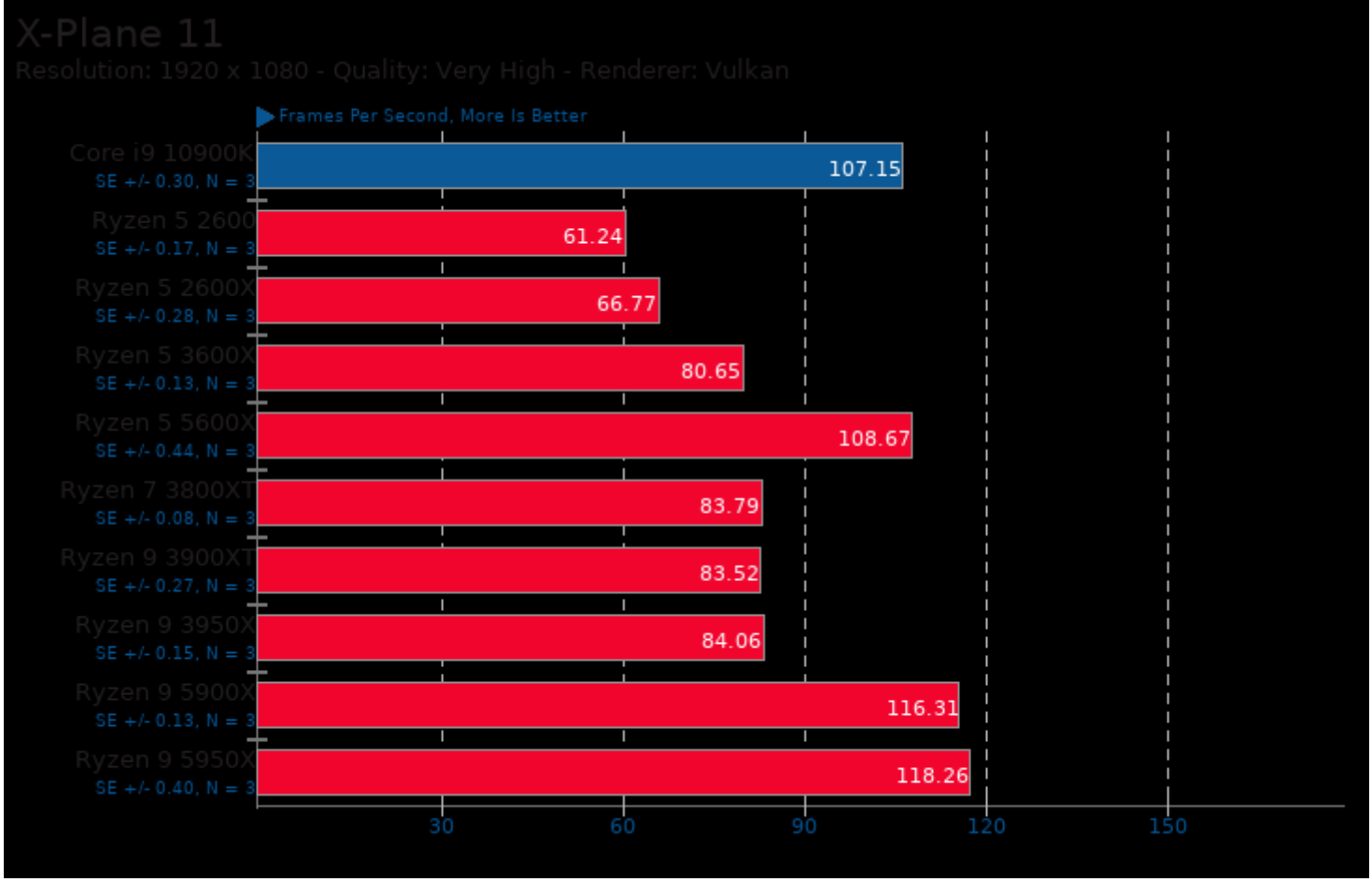

Unigine Superposition 1.0
Resolution: 1920 x 1080 - Mode: Fullscreen - Quality: Low - Renderer: OpenGL
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.77, N = 3
MAX: 335.8
235.9
Ryzen 5 2600
SE +/- 0.62, N = 3
MAX: 203.7
145.1
Ryzen 5 2600X
SE +/- 0.33, N = 3
MAX: 224.3
157.6
Ryzen 5 3600X
SE +/- 0.12, N = 3
MAX: 289.6
195.2
Ryzen 5 5600X
SE +/- 0.19, N = 3
MAX: 381.4
250.4
Ryzen 7 3800XT
SE +/- 0.65, N = 3
MAX: 298.2
200.1
Ryzen 9 3900XT
SE +/- 0.74, N = 3
MAX: 294.9
197.7
Ryzen 9 3950X
SE +/- 2.85, N = 3
MAX: 291.3
195.4
Ryzen 9 5900X
SE +/- 0.90, N = 3
MAX: 355.7
240.0
Ryzen 9 5950X
SE +/- 2.96, N = 3
MAX: 362.9
240.4
50
100
150
200
250

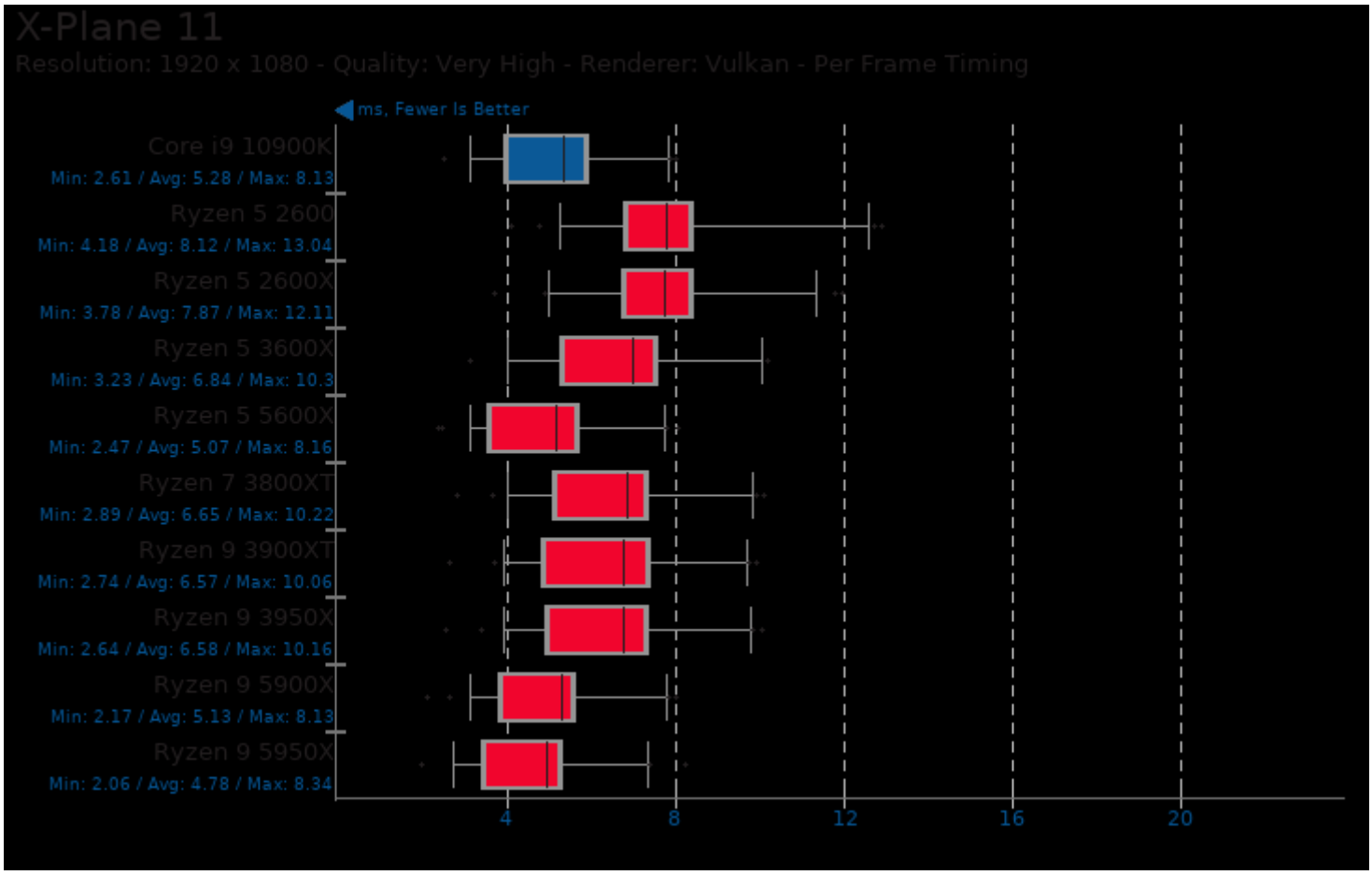
AMD Ryzen 5 5600X Series Linux Gaming



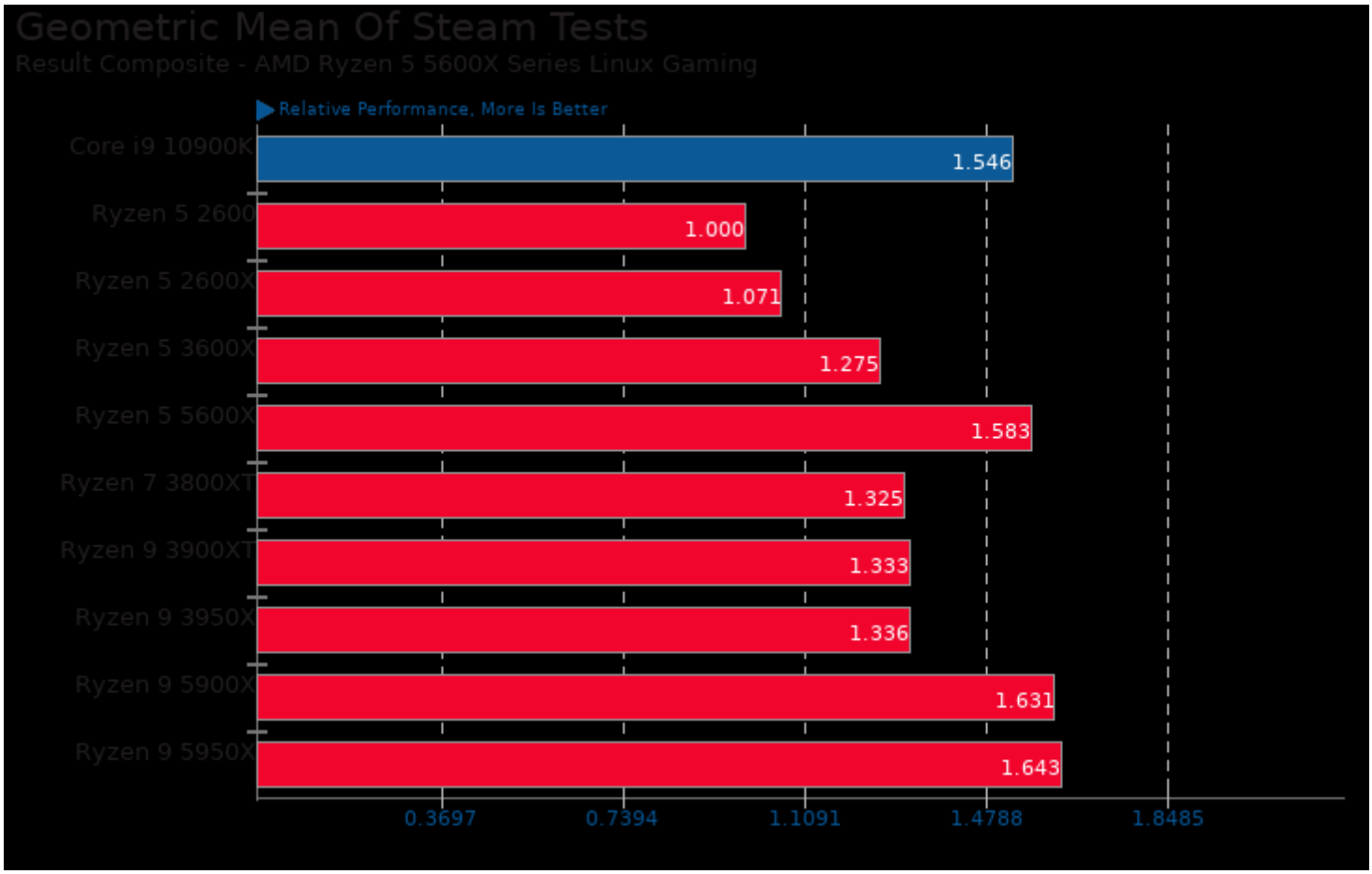



X-Plane 11
Resolution: 1920 x 1080 - Quality: Medium - Renderer: Vulkan - Per Frame Timing
ms, Fewer Is Better
Core i9 10900K
Min: 1.93 / Avg: 2.73 / Max: 9.94
Ryzen 5 2600
Min: 0.34 / Avg: 5.09 / Max: 7.16
Ryzen 5 2600X
Min: 1.76 / Avg: 4.49 / Max: 6.12
Ryzen 5 3600X
Min: 2.52 / Avg: 3.61 / Max: 4.9
Ryzen 5 5600X
Min: 1.76 / Avg: 2.49 / Max: 3.4
Ryzen 7 3800XT
Min: 2.5 / Avg: 3.52 / Max: 4.87
Ryzen 9 3900XT
Min: 2.47 / Avg: 3.42 / Max: 4.6
Ryzen 9 3950X
Min: 2.55 / Avg: 3.62 / Max: 5.28
Ryzen 9 5900X
Min: 1.95 / Avg: 2.69 / Max: 3.85
Ryzen 9 5950X
Min: 1.71 / Avg: 2.5 / Max: 3.44
3
6
9
12
15


X-Plane 11
Resolution: 1920 x 1080 - Quality: Very High - Renderer: Vulkan
Frames Per Second, More Is Better
Core i9 10900K
SE +/- 0.30, N = 3
107.15
Ryzen 5 2600
SE +/- 0.17, N = 3
61.24
Ryzen 5 2600X
SE +/- 0.28, N = 3
66.77
Ryzen 5 3600X
SE +/- 0.13, N = 3
80.65
Ryzen 5 5600X
SE +/- 0.44, N = 3
108.67
Ryzen 7 3800XT
SE +/- 0.08, N = 3
83.79
Ryzen 9 3900XT
SE +/- 0.27, N = 3
83.52
Ryzen 9 3950X
SE +/- 0.15, N = 3
84.06
Ryzen 9 5900X
SE +/- 0.13, N = 3
116.31
Ryzen 9 5950X
SE +/- 0.40, N = 3
118.26
30
60
90
120
150


X-Plane 11
Resolution: 1920 x 1080 - Quality: Very High - Renderer: Vulkan - Per Frame Timing
ms, Fewer Is Better
Core i9 10900K
Min: 2.61 / Avg: 5.28 / Max: 8.13
Ryzen 5 2600
Min: 4.18 / Avg: 8.12 / Max: 13.04
Ryzen 5 2600X
Min: 3.78 / Avg: 7.87 / Max: 12.11
Ryzen 5 3600X
Min: 3.23 / Avg: 6.84 / Max: 10.3
Ryzen 5 5600X
Min: 2.47 / Avg: 5.07 / Max: 8.16
Ryzen 7 3800XT
Min: 2.89 / Avg: 6.65 / Max: 10.22
Ryzen 9 3900XT
Min: 2.74 / Avg: 6.57 / Max: 10.06
Ryzen 9 3950X
Min: 2.64 / Avg: 6.58 / Max: 10.16
Ryzen 9 5900X
Min: 2.17 / Avg: 5.13 / Max: 8.13
Ryzen 9 5950X
Min: 2.06 / Avg: 4.78 / Max: 8.34
4
8
12
16
20

These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/batman-knight, pts/dota2, pts/dow3, pts/f12017, pts/hitman2, pts/thronesofbritannia, pts/tww2 and pts/xplane11

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 07:33.