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5900X jan

AMD Ryzen 9 5900X 12-Core testing with a ASUS ROG CROSSHAIR VIII HERO (3801 BIOS) and AMD Radeon RX 6700 XT 12GB on Ubuntu 21.04 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 71% of the tests.

Based on the geometric mean of all complete results, the fastest (B) was 1x the speed of the slowest (A).

Test Systems:

A

B

Processor: AMD Ryzen 9 5900X 12-Core @ 3.70GHz (12 Cores / 24 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (3801 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 500GB Western Digital

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WDS500G3X0C-00SJG0, Graphics: AMD Radeon RX 6700 XT 12GB (2855/1000MHz), Audio: AMD Device ab28, Monitor: MX279, Network: Realtek RTL8125 2.5GbE + Intel I211

OS: Ubuntu 21.04, Kernel: 5.11.0-31-generic (x86_64), Desktop: GNOME Shell 3.38.4, Display Server: X Server 1.20.11 + Wayland, OpenGL: 4.6 Mesa 21.3.0-devel (git-ad78643 2021-08-25 hirsute-oibaf-ppa) (LLVM 12.0.1), Vulkan: 1.2.185, Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 1920x1080

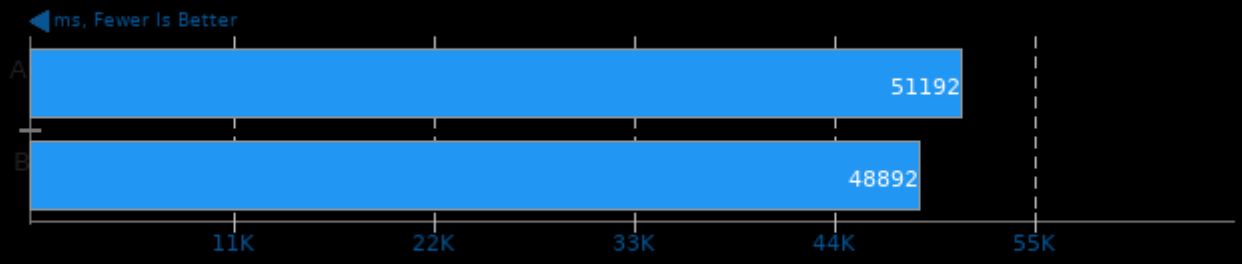
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-gcn/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-build-config=bootstrap-lto-lean --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 schedutil (Boost: Enabled) - CPU Microcode: 0xa201016
Graphics Notes: GLAMOR - BAR1 / Visible vRAM Size: 256 MB
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

	A	B
OpenJPEG - N.C.P.M (ms)	**51192**	**48892**
Normalized	95.51%	100%
GravityMark - 1920 x 1080 - OpenGL ES (FPS)	**71.1**	**69.5**
Normalized	100%	97.75%
GravityMark - 1920 x 1080 - Vulkan (FPS)	**154.2**	**151**
Normalized	100%	97.92%
GravityMark - 1920 x 1080 - OpenGL (FPS)	**146.4**	**147.1**
Normalized	99.52%	100%
Timed Linux Kernel Compilation - defconfig (sec)	**54.781**	**54.971**
Normalized	100%	99.65%
Tachyon - Total Time (sec)	**95.7121**	**95.7874**
Normalized	100%	99.92%
Timed Linux Kernel Compilation - allmodconfig (sec)	**696.012**	**696.423**
Normalized	100%	99.94%

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OpenJPEG 2.4

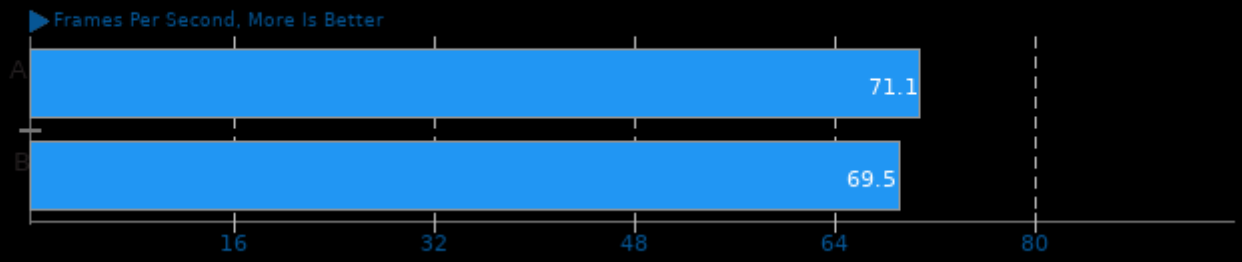
Encode: NASA Curiosity Panorama M34



1. (CXX) g++ options: -rdynamic

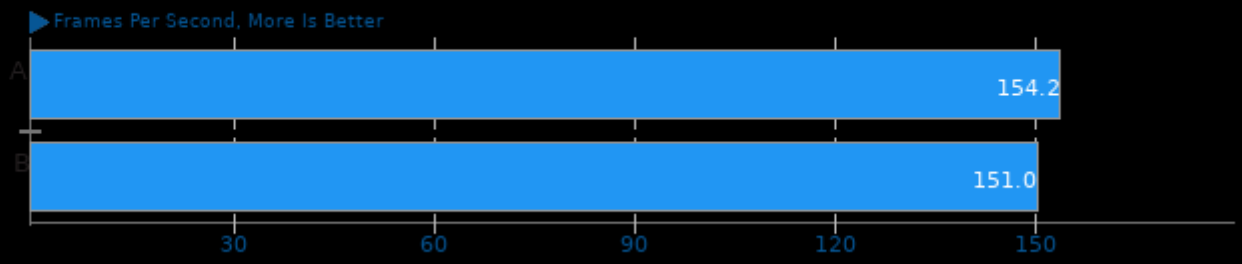
GravityMark 1.44

Resolution: 1920 x 1080 - Renderer: OpenGL ES



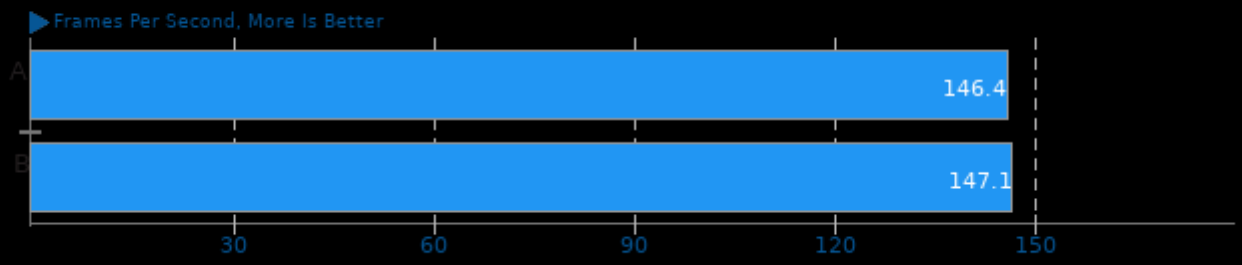
GravityMark 1.44

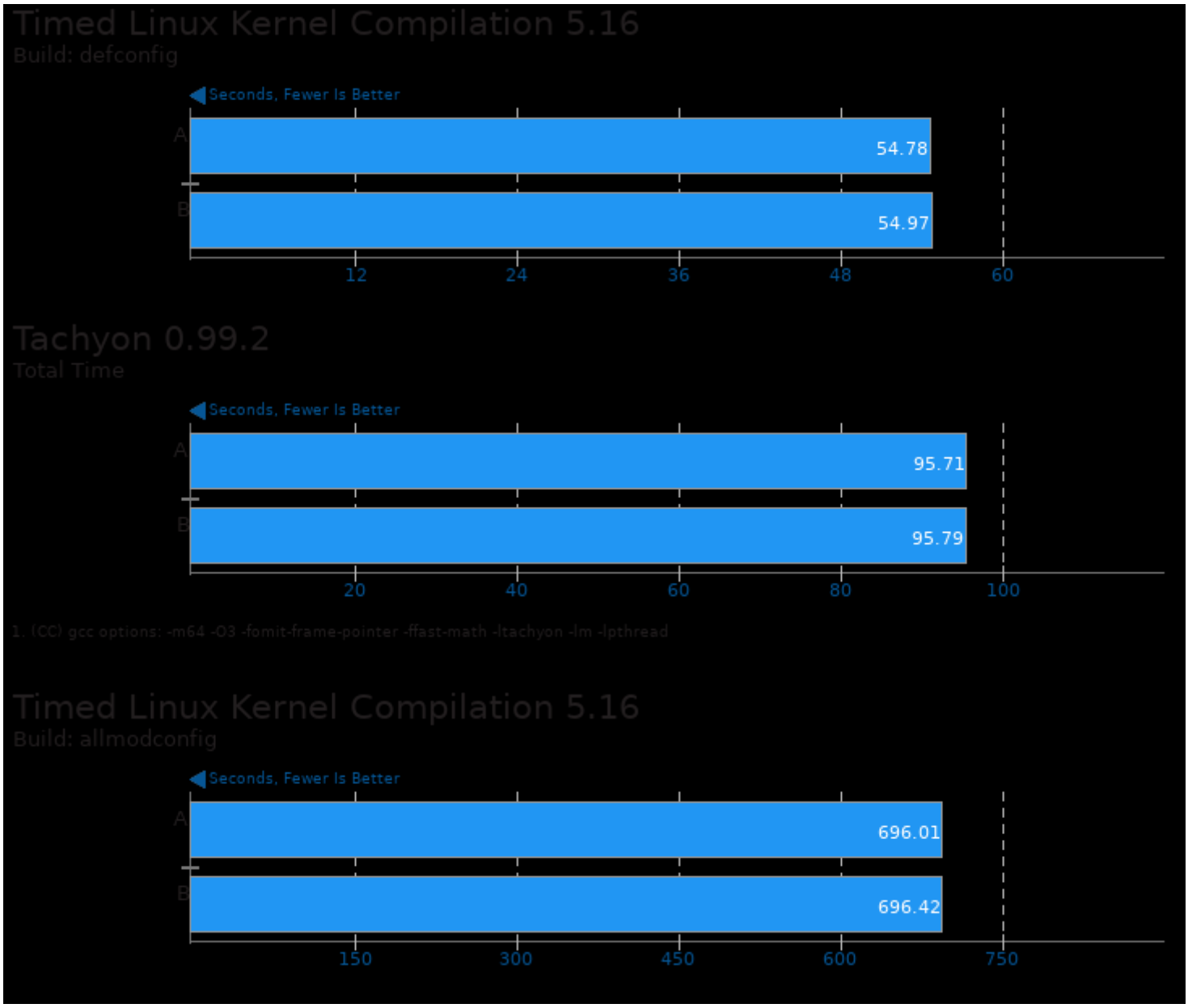
Resolution: 1920 x 1080 - Renderer: Vulkan



GravityMark 1.44

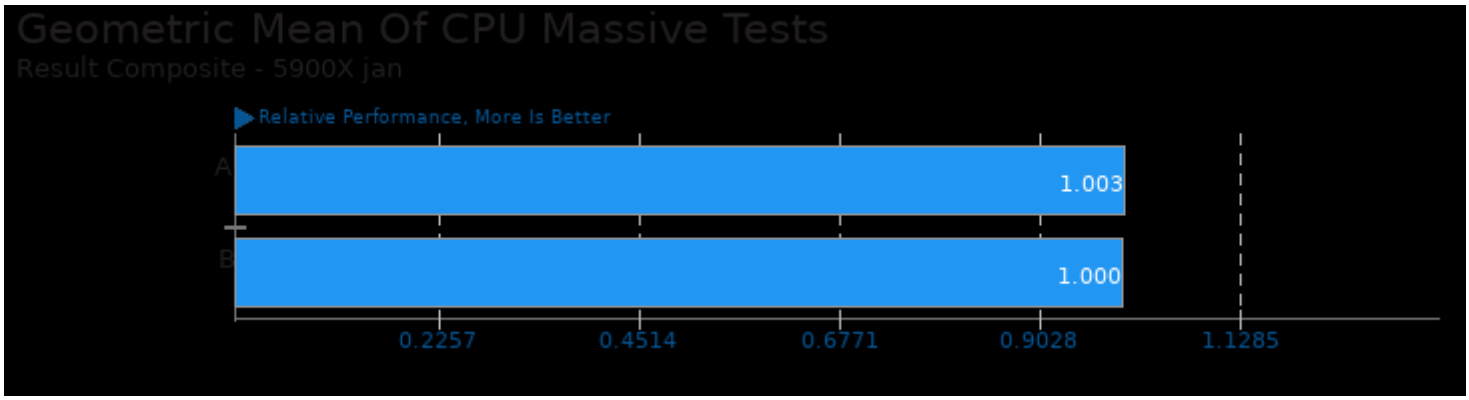
Resolution: 1920 x 1080 - Renderer: OpenGL




Timed Linux Kernel Compilation 5.16
Build: defconfig
Seconds, Fewer Is Better
A
54.78
B
54.97
12
24
36
48
60
Tachyon 0.99.2
Total Time
Seconds, Fewer Is Better
A
95.71
B
95.79
20
40
60
80
100
1. (CC) gcc options: -m64 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread
Timed Linux Kernel Compilation 5.16
Build: allmodconfig
Seconds, Fewer Is Better
A
696.01
B
696.42
150
300
450
600
750

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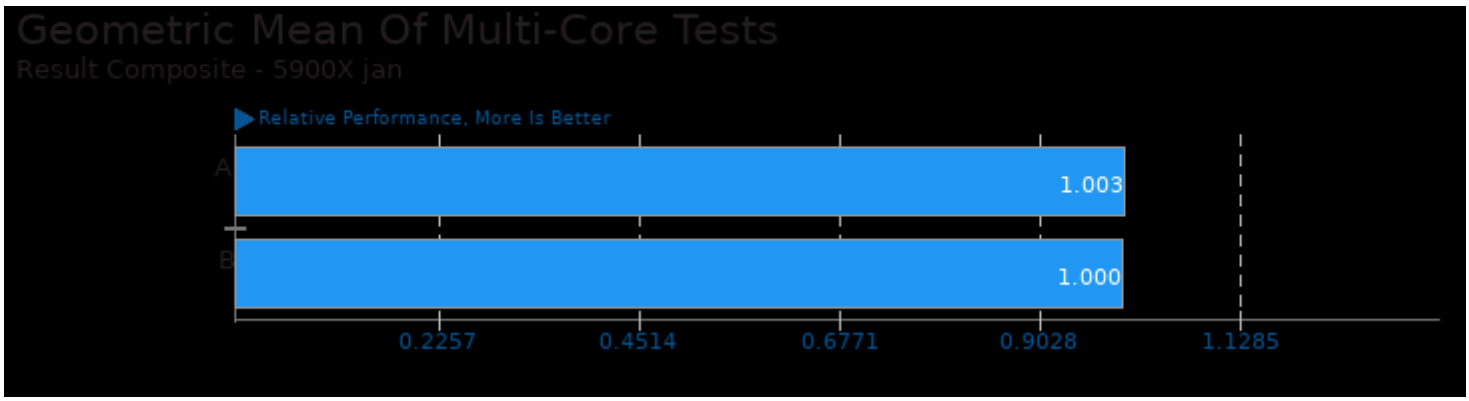
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/build-linux-kernel and pts/tachyon



Geometric mean based upon tests: pts/tachyon and pts/openjpeg



Geometric mean based upon tests: pts/tachyon and pts/build-linux-kernel

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 04:55.