



[www.phoronix-test-suite.com](http://www.phoronix-test-suite.com)

## due

AMD Ryzen 7 3800X 8-Core testing with a MSI B450M PRO-VDH MAX (MS-7A38) v8.0 (B.70 BIOS) and Sapphire AMD Radeon RX 550 640SP / 560/560X 4GB on ManjaroLinux 20.2 via the Phoronix Test Suite.

## Test Systems:

### due

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: MSI B450M PRO-VDH MAX (MS-7A38) v8.0 (B.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 512GB ADATA SX8200PNP + 500GB Samsung SSD 850 + 3001GB Western Digital WD30EZRX-00D + 2000GB SAMSUNG HD204UI, Graphics: Sapphire AMD Radeon RX 550 640SP / 560/560X 4GB (1071/1500MHz), Audio: AMD Baffin HDMI/DP, Monitor: U28E570 + ASUS VH232, Network: Realtek RTL8111/8168/8411

OS: ManjaroLinux 20.2, Kernel: 5.9.8-AMD-znver2 (x86\_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 20.2.2 (LLVM 11.0.0), Compiler: GCC 10.2.0 + TCC 0.9.27 + Clang 11.0.0Target:, File-System: ext4, Screen Resolution: 4480x1440

Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-\_\_cxa\_atexit --enable-cet=auto --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Disk Notes: NONE / no time.rw

Processor Notes: Scaling Governor: acpi-cpufreq schedutil - CPU Microcode: 0x8701021

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 + srbs: Not affected + tsx\_async\_abort: Not affected

## AMD Ryzen 7 3800X 8-Core

### ADATA SX8200PNP - AMD Ryzen 7 3800X 8-Core

#### ADATA SX8200PNP

Processor: AMD Ryzen 7 3800X 8-Core @ 3.90GHz (8 Cores / 16 Threads), Motherboard: MSI B450M PRO-VDH MAX (MS-7A38) v8.0 (B.70 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 512GB ADATA SX8200PNP + 500GB Samsung SSD 850 + 2000GB SAMSUNG HD204UI + 3001GB Western Digital WD30EZRX-00D, Graphics: Sapphire AMD Radeon RX 550 640SP / 560/560X 4GB (1071/1500MHz), Audio: AMD Baffin HDMI/DP, Monitor: U28E570 + ASUS VH232, Network: Realtek RTL8111/8168/8411

OS: ManjaroLinux 20.2, Kernel: 5.9.8-AMD-znver2 (x86\_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 20.2.2 (LLVM 11.0.0), Compiler: GCC 10.2.0 + TCC 0.9.27 + Clang 11.0.0Target:, File-System: ext4, Screen Resolution: 4480x1440

Processor Notes: Scaling Governor: acpi-cpufreq schedutil - CPU Microcode: 0x8701021

Python Notes: Python 3.8.6

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 + srbs: Not affected + tsx\_async\_abort: Not affected

due	AMD Ryzen 7 3800X 8-Core	ADATA SX8200PNP - AMD Ryzen 7 3800X 8-Core	ADATA SX8200PNP
-----	-----------------------------	---	--------------------

**PostMark - D.T.P (TPS)** 7733

Standard Deviation 1.8%

**Apache Benchmark - S.W.P.S** 37109

(Req/sec)

Standard Deviation 1.7%

**PostgreSQL pgbench - 1 - 1 - Read** 35939

Only (TPS)

Standard Deviation 2.6%

**PostgreSQL pgbench - 1 - 1 - Read** 0.028

Only - Average Latency (ms)

Standard Deviation 3.6%

**PostgreSQL pgbench - 1 - 1 - Read** 1900

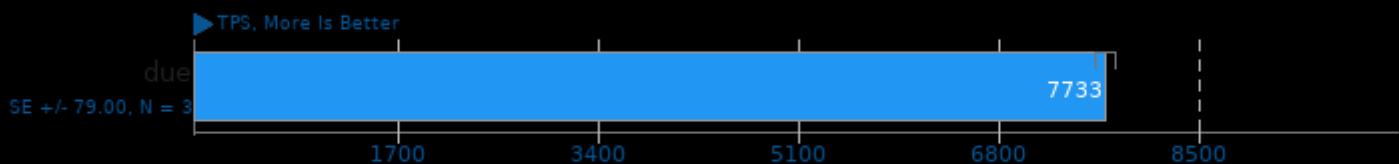
Write (TPS)

Standard Deviation 0.7%

<b>PostgreSQL pgbench - 1 - 1 - Read</b>	0.526
<b>Write - Average Latency (ms)</b>	
Standard Deviation	0.7%
<b>OSBench - Create Files (us/Event)</b>	11.973108
Standard Deviation	1.1%
<b>OSBench - Create Threads (us/Event)</b>	9.520054
Standard Deviation	1.2%
<b>OSBench - Launch Programs</b>	36.406040
Standard Deviation	2.7%
<b>OSBench - Create Processes</b>	24.290085
Standard Deviation	2.8%
<b>OSBench - Memory Allocations</b>	77.899774
(Ns/Event)	
Standard Deviation	1.4%
<b>perf-bench - Epoll Wait (ops/sec)</b>	88591
Standard Deviation	0.4%
<b>perf-bench - Futex Hash (ops/sec)</b>	2102784
Standard Deviation	1.2%
<b>perf-bench - Memcpy 1MB (GB/sec)</b>	12.086824
Standard Deviation	2.5%
<b>perf-bench - Memset 1MB (GB/sec)</b>	77.507127
Standard Deviation	4.2%
<b>perf-bench - Sched Pipe (ops/sec)</b>	166915
Standard Deviation	1.3%
<b>perf-bench - Futex Lock-Pi (ops/sec)</b>	1010
Standard Deviation	0.3%
<b>perf-bench - Syscall Basic (ops/sec)</b>	10241511
Standard Deviation	0.3%
<b>Timed MrBayes Analysis - P.P.A (sec)</b>	68.889
Standard Deviation	0.2%
<b>QMCPACK (Execution Time - sec)</b>	617.02
<b>Timed HMMer Search - P.D.S (sec)</b>	95.288
Standard Deviation	0.3%
<b>Timed MAFFT Alignment - M.S.A -</b>	12.466
<b>LSU RNA (sec)</b>	
Standard Deviation	0.9%
<b>Himeno Benchmark - P.P.S (MFLOPS)</b>	4847
Standard Deviation	1.3%
<b>Numpy Benchmark (Score)</b>	376.56
Standard Deviation	2.1%

## PostMark 1.51

Disk Transaction Performance



1. (CC) gcc options: -O3

## Apache Benchmark 2.4.29

Static Web Page Serving



1. (CC) gcc options: -shared -fPIC -O2 -pthread

## PostgreSQL pgbench 13.0

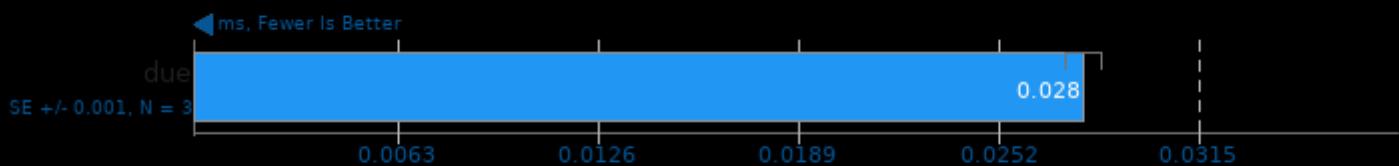
Scaling Factor: 1 - Clients: 1 - Mode: Read Only



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

## PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 1 - Mode: Read Only - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

## PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 1 - Mode: Read Write

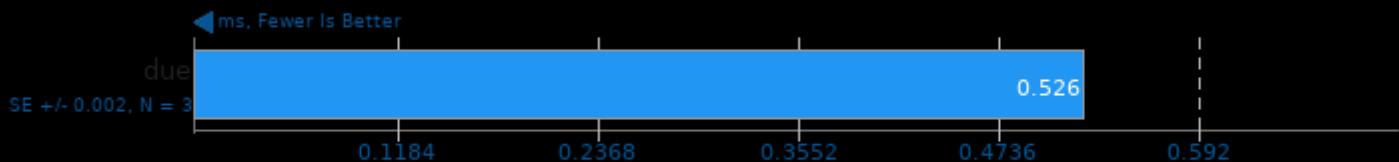


1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

due

## PostgreSQL pgbench 13.0

Scaling Factor: 1 - Clients: 1 - Mode: Read Write - Average Latency



1. (CC) gcc options: -fno-strict-aliasing -fwrapv -O2 -lpgcommon -lpgport -lpq -pthread -lrt -ldl -lm

## OSBench

Test: Create Files



## OSBench

Test: Create Threads



## OSBench

Test: Launch Programs



## OSBench

Test: Create Processes



## OSBench

Test: Memory Allocations



due

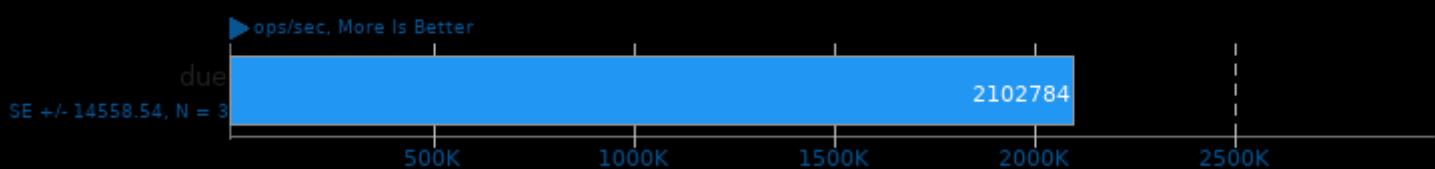
## perf-bench

Benchmark: Epoll Wait



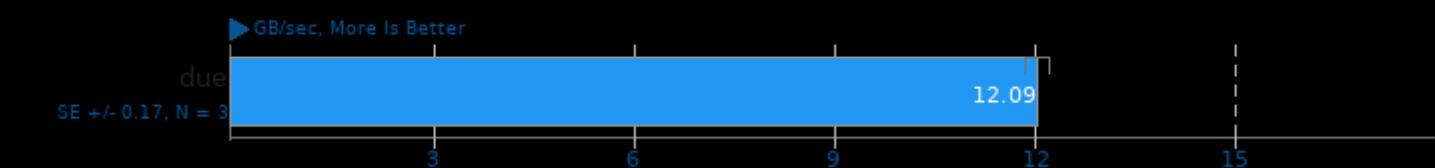
## perf-bench

Benchmark: Futex Hash



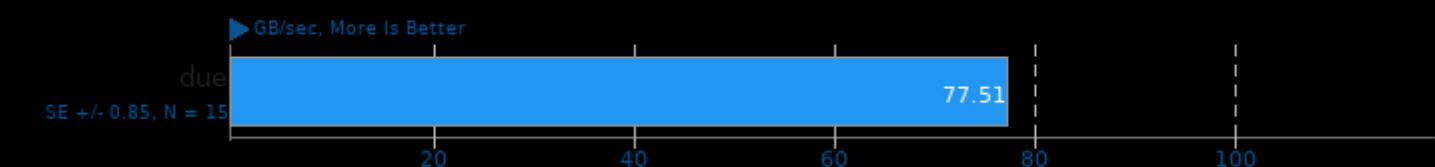
## perf-bench

Benchmark: Memcpy 1MB



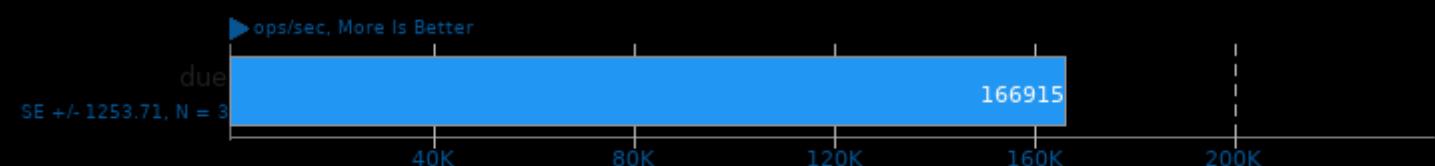
## perf-bench

Benchmark: Memset 1MB



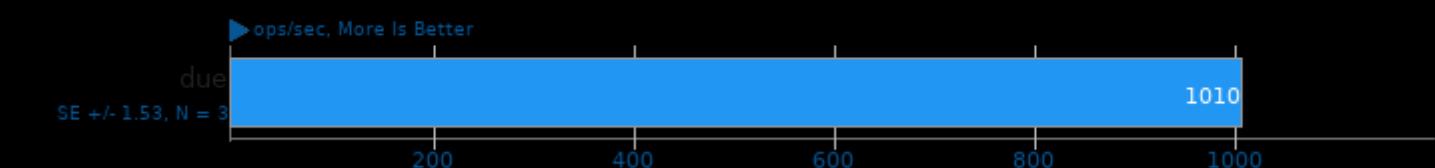
## perf-bench

Benchmark: Sched Pipe



## perf-bench

Benchmark: Futex Lock-Pi

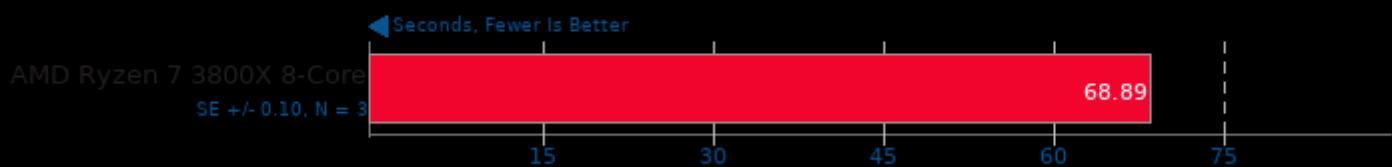
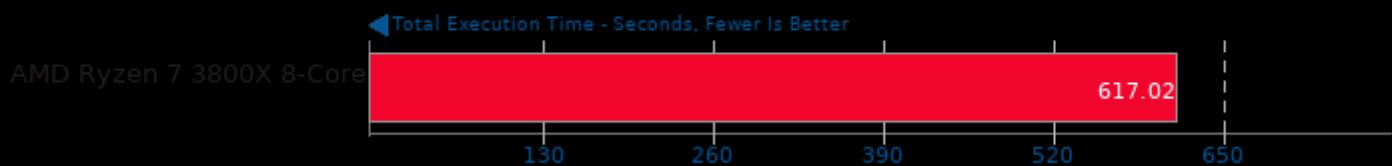


**perf-bench**

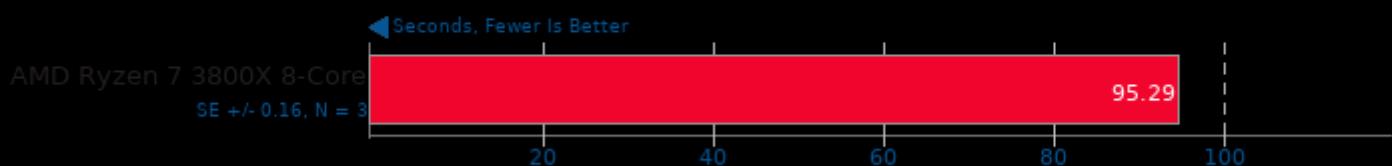
Benchmark: Syscall Basic

**Timed MrBayes Analysis 3.2.7**

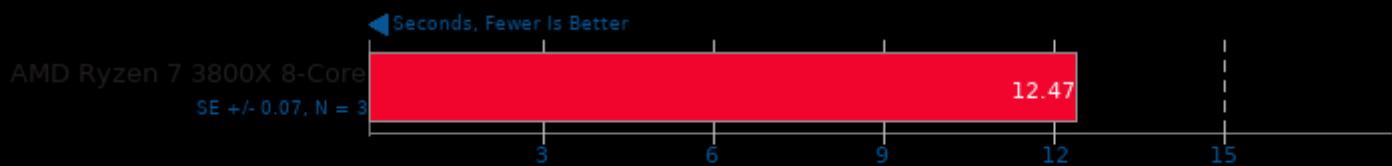
Primate Phylogeny Analysis

**QMCPACK 3.8****Timed HMMer Search 3.3.1**

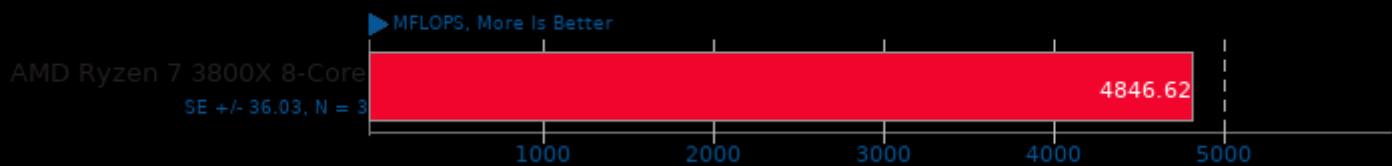
Pfam Database Search

**Timed MAFFT Alignment 7.471**

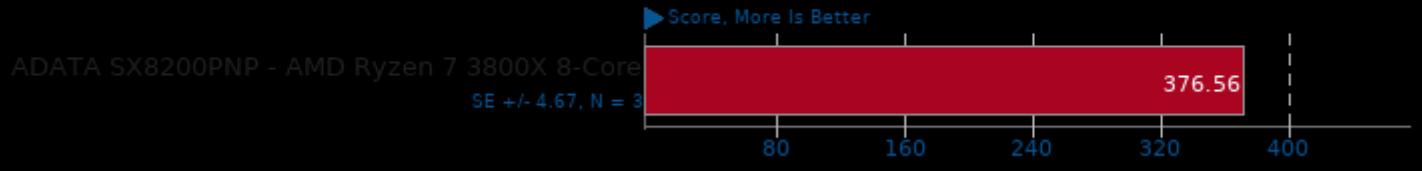
Multiple Sequence Alignment - LSU RNA

**Himeno Benchmark 3.0**

Poisson Pressure Solver



## Numpy Benchmark



*This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 06:21.*