



cpu-test-boost

lxc testing on Ubuntu 21.10 via the Phoronix Test Suite.

Test Systems:

cpu-test-boost

Processor: AMD Ryzen 9 5950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: ASRock Rack X570D4U-2L2T (P1.40 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1920GB SAMSUNG MZ1L21T9HCLS-00A07 + 2000GB Samsung SSD 980 PRO 2TB + 2 x 240GB SAMSUNG MZ7L3240, Graphics: ASPEED, Audio: AMD Starship/Matisse, Network: 2 x Intel 10G X550T + 2 x Intel I210

OS: Ubuntu 21.10, Kernel: 5.13.19-1-pve (x86_64), Vulkan: 1.1.182, Compiler: GCC 11.2.0, File-System: zfs, Screen Resolution: 1024x768, System Layer: lxc

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --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-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-ZPT0kp/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgc-n-amdhsa=/build/gcc-11-ZPT0kp/gcc-11-11.2.0/debian/tmp-gcn/usr

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--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 performance (Boost: Enabled) - CPU Microcode: 0xa201009
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/swaps 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
```

cpu-test-boost	
GraphicsMagick - Swirl (Iterations/min)	901
Standard Deviation	2.5%
GraphicsMagick - Rotate (Iterations/min)	902
Standard Deviation	1%
GraphicsMagick - Sharpen (Iterations/min)	197
Standard Deviation	2.5%
GraphicsMagick - Enhanced (Iterations/min)	365
Standard Deviation	0.9%
GraphicsMagick - Resizing (Iterations/min)	1570
Standard Deviation	1.1%
GraphicsMagick - Noise-Gaussian (Iterations/min)	379
Standard Deviation	0.8%
GraphicsMagick - HWB Color Space (Iterations/min)	942
Standard Deviation	1%
Rust Mandelbrot - T.T.C.S.P.M (sec)	30.647
Standard Deviation	1.9%
Rust Prime Benchmark - P.N.T.T.2.0.0 (sec)	5.306
Standard Deviation	0.1%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	1.37656
Standard Deviation	2.4%
Kvazaar - Bosphorus 4K - Slow (FPS)	11.62
Standard Deviation	2.3%
Kvazaar - Bosphorus 4K - Medium (FPS)	11.70
Standard Deviation	2.4%
Kvazaar - Bosphorus 1080p - Slow (FPS)	52.45
Standard Deviation	0.2%
Kvazaar - Bosphorus 1080p - Medium (FPS)	54.79
Standard Deviation	0.8%
Kvazaar - Bosphorus 4K - Very Fast (FPS)	26.32
Standard Deviation	1.5%
Kvazaar - Bosphorus 4K - Ultra Fast (FPS)	47.10
Standard Deviation	0.2%
Kvazaar - Bosphorus 1080p - Very Fast (FPS)	109.60
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)	194.00
Standard Deviation	0.3%
x264 - H.2.V.E (FPS)	183.09
Standard Deviation	16.3%
x265 - Bosphorus 4K (FPS)	23.39
Standard Deviation	0.5%
x265 - Bosphorus 1080p (FPS)	77.81
Standard Deviation	0.3%

Stockfish - Total Time (Nodes/s) 45168149
Standard Deviation 3.7%

asmFish - 1.H.M.2.D (Nodes/s) 48830730
Standard Deviation 1.2%

POV-Ray - Trace Time (sec) 26.225
Standard Deviation 1%

Radiance Benchmark - Serial (sec) 477.242

Radiance Benchmark - SMP Parallel (sec) 149.426

OpenSSL - R.4.b.P (Signs/sec) 4336
Standard Deviation 2.5%

OpenSSL - SHA256 (byte/s) 22089713950
Standard Deviation 1.6%

OpenSSL - RSA4096 (sign/s) 4179
Standard Deviation 1%

OpenSSL - RSA4096 (verify/s) 268726
Standard Deviation 0.3%

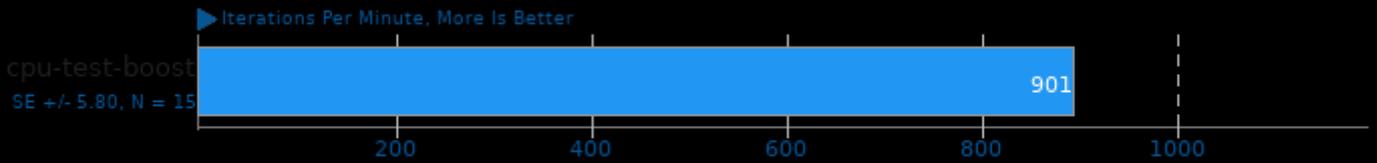
ctx_clock - C.S.T (Clocks) 238
Standard Deviation 0%

Sysbench - CPU (Events/sec) 85707
Standard Deviation 1.7%

Blender - Barbershop - CPU-Only (sec) 548.14

GraphicsMagick 1.3.33

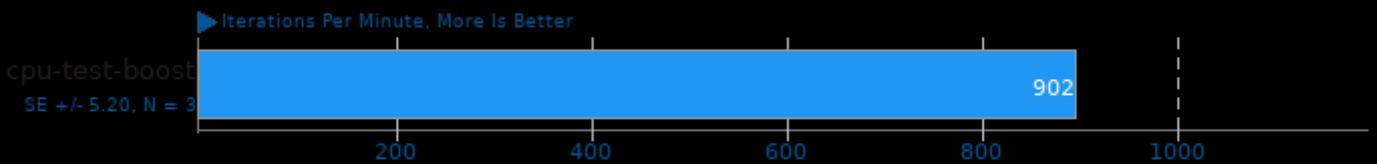
Operation: Swirl



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

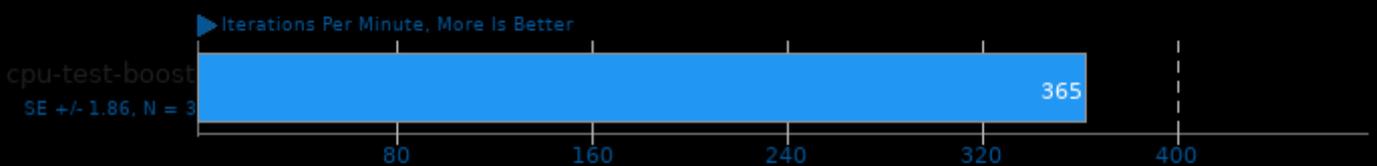
Operation: Sharpen



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

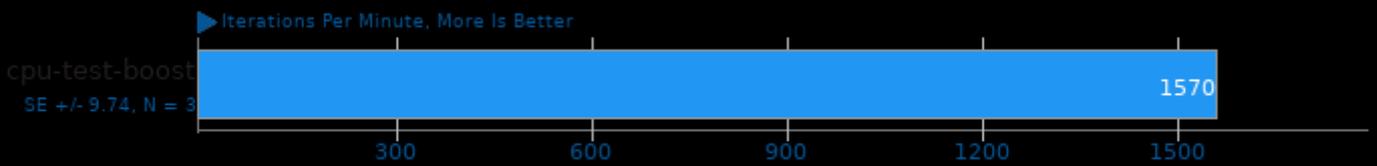
Operation: Enhanced



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

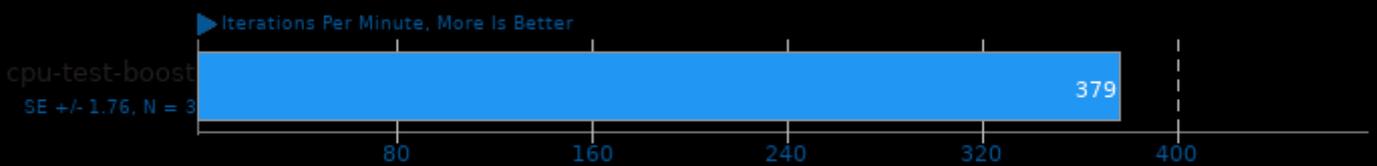
Operation: Resizing



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

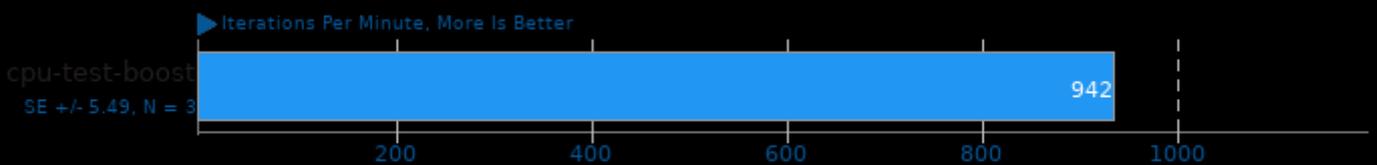
Operation: Noise-Gaussian



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

Rust Mandelbrot

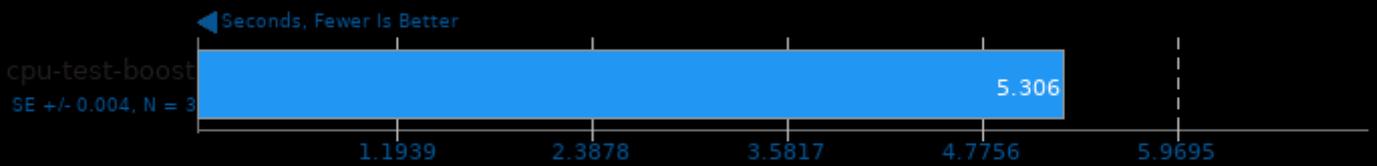
Time To Complete Serial/Parallel Mandelbrot



1. (CC) gcc options: -m64 -pie -nodefaultlibs -lgcc_s -lutil -lrt -lpthread -lm -ldl -lc

Rust Prime Benchmark

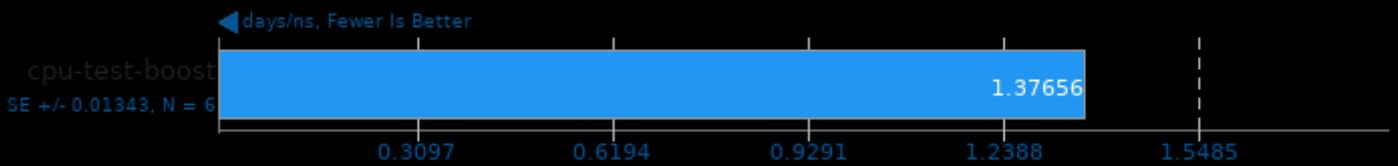
Prime Number Test To 200,000,000



1. (CC) gcc options: -m64 -pie -nodefaultlibs -lgcc_s -lutil -lrt -lpthread -lm -ldl -lc

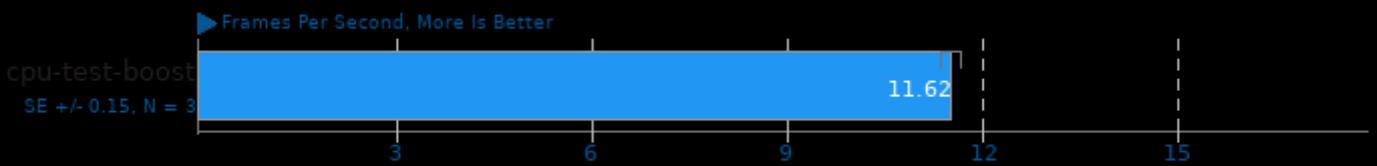
NAMD 2.13b1

ATPase Simulation - 327,506 Atoms



Kvazaar 2.1

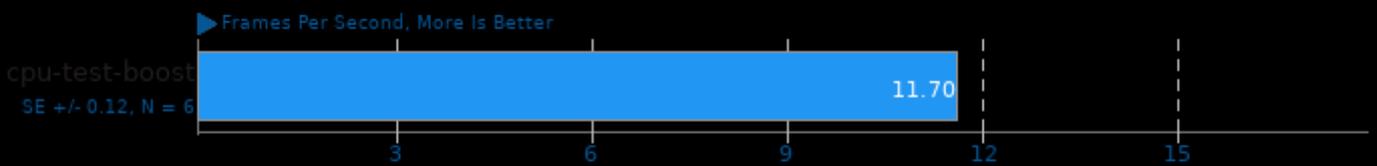
Video Input: Bosphorus 4K - Video Preset: Slow



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

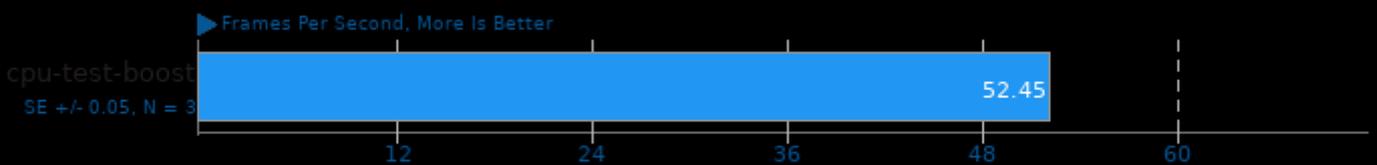
Video Input: Bosphorus 4K - Video Preset: Medium



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

Video Input: Bosphorus 1080p - Video Preset: Slow



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

Video Input: Bosphorus 1080p - Video Preset: Medium



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

Video Input: Bosphorus 4K - Video Preset: Very Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

Video Input: Bosphorus 4K - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

Video Input: Bosphorus 1080p - Video Preset: Very Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -free-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

x264 2018-09-25

H.264 Video Encoding



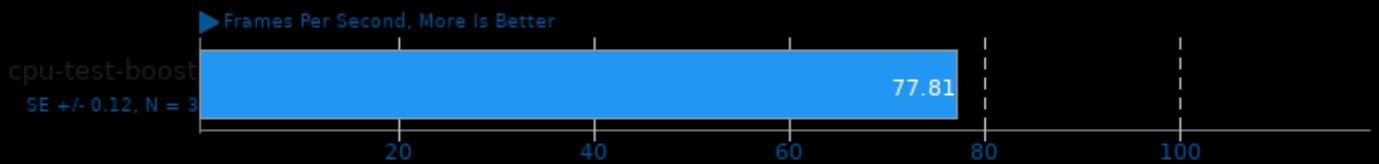
x265 3.4

Video Input: Bosphorus 4K



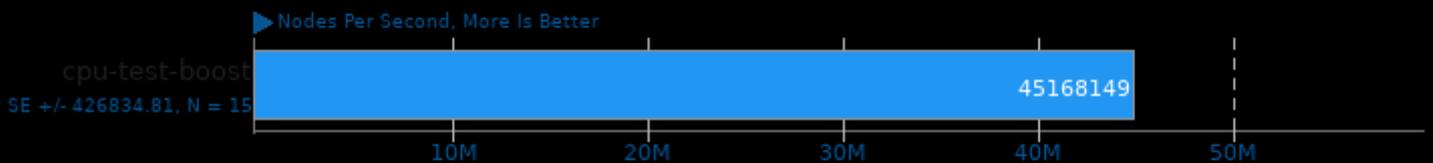
x265 3.4

Video Input: Bosphorus 1080p



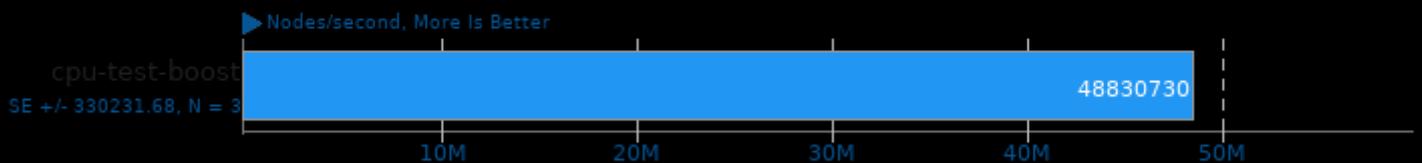
Stockfish 9

Total Time



asmFish 2018-07-23

1024 Hash Memory, 26 Depth



POV-Ray 3.7.0.7

Trace Time

← Seconds, Fewer Is Better

cpu-test-boost

SE +/- 0.14, N = 3



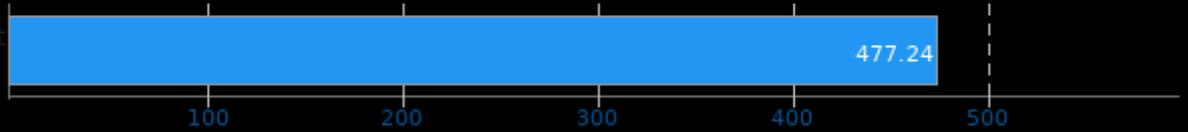
1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -R/usr/lib -lXpm -lSM -lICE -lX11 -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

Radiance Benchmark 5.0

Test: Serial

← Seconds, Fewer Is Better

cpu-test-boost

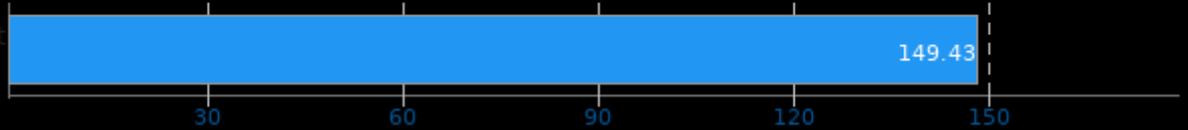


Radiance Benchmark 5.0

Test: SMP Parallel

← Seconds, Fewer Is Better

cpu-test-boost



OpenSSL 1.1.1

RSA 4096-bit Performance

▶ Signs Per Second, More Is Better

cpu-test-boost

SE +/- 31.25, N = 12



OpenSSL 3.0

Algorithm: SHA256

▶ byte/s, More Is Better

cpu-test-boost

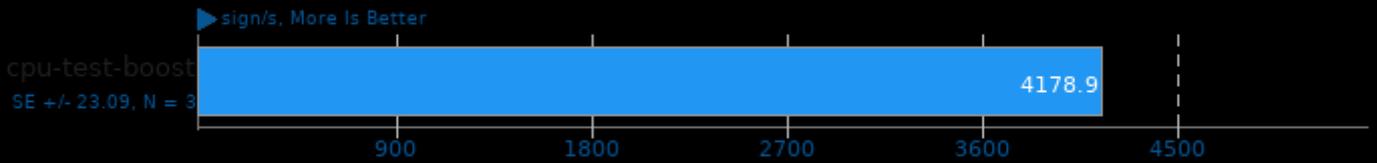
SE +/- 199072198.02, N = 3



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

OpenSSL 3.0

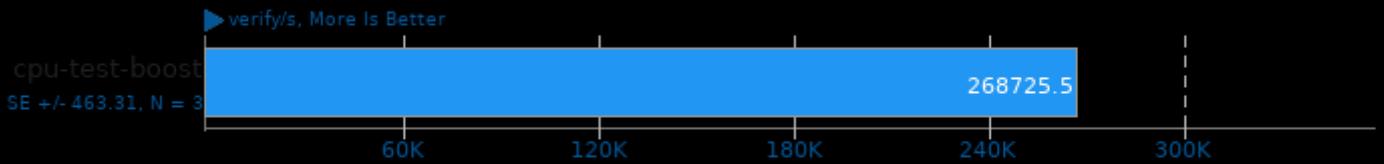
Algorithm: RSA4096



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

OpenSSL 3.0

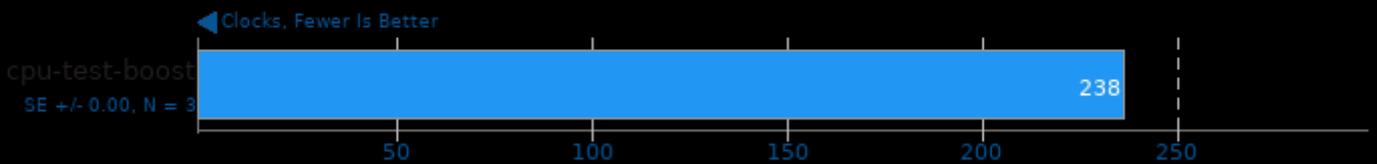
Algorithm: RSA4096



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

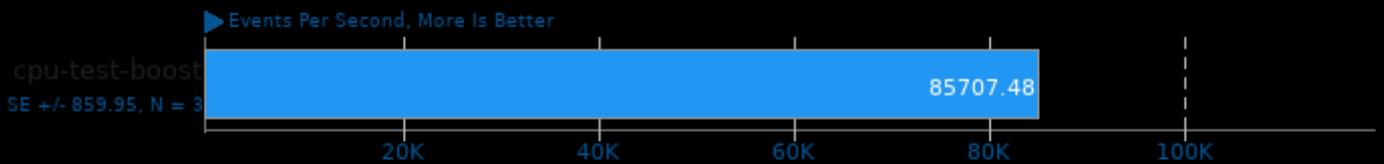
ctx_clock

Context Switch Time



Sysbench 2018-07-28

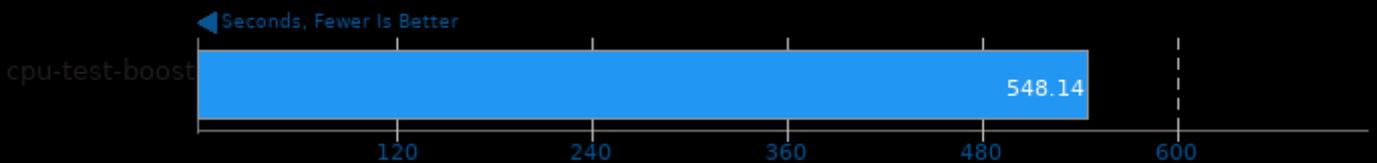
Test: CPU



1. (CC) gcc options: -O3 -funroll-loops -ggdb3 -march=amdfam10 -rdynamic -ldl -laio -lm

Blender 2.79a

Blend File: Barbershop - Compute: CPU-Only



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 22:24.