



www.phoronix-test-suite.com

mini-3cs-made-ram

Intel Xeon E3-1225 v6 testing with a (2.002 BIOS) and Intel HD P630 on Ubuntu 20.04 via the Phoronix Test Suite.

Test Systems:

Full 3CS in-house build

Processor: Intel Xeon E3-1225 v6 @ 3.70GHz (4 Cores), Motherboard: (2.002 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 2 x 16384 MB DDR4-2400MT/s Kingston, Disk: 256GB Samsung SSD 860, Graphics: Intel HD P630 (1150MHz), Audio: Intel 100 /C230, Monitor: DELL P2417H, Network: 6 x Intel I210

OS: Ubuntu 20.04, Kernel: 5.4.0-70-generic (x86_64), Vulkan: 1.2.145, Compiler: GCC 9.3.0, 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-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: 0xde - ThermalD 1.9.1

Java Notes: OpenJDK Runtime Environment (build 11.0.10+9-Ubuntu-0ubuntu1.20.04)

Python Notes: Python 3.8.5

Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbd: Mitigation of Microcode + tsx_async_abort: Mitigation of Clear buffers; SMT disabled

Full 3CS in-house build

7-Zip Compression - C.S.T (MIPS)	15993
Standard Deviation	0.5%
ACES DGEMM - S.F.P.R (GFLOP/s)	1.143988
Standard Deviation	0.9%
Apache Benchmark - S.W.P.S (Req/s)	28808
Standard Deviation	0.3%
Apache Cassandra - Writes (Op/s)	14055
Standard Deviation	1.1%
Apache Siege - 100 (Transactions/sec)	25609
Standard Deviation	0.5%
Appleseed - Emily (sec)	1339
Appleseed - Disney Material (sec)	689.259079
Appleseed - Material Tester (sec)	714.903237
asmFish - 1.H.M.2.D (Nodes/s)	8750202
Standard Deviation	0.9%
Blender - Classroom - CPU-Only (sec)	1603
Standard Deviation	0.3%
Blender - Barbershop - CPU-Only (sec)	2305
Standard Deviation	0.2%
BRL-CAD - V.P.M (VGR Performance Metric)	35337
Build2 - Time To Compile (sec)	344.235
Standard Deviation	0.9%
CloverLeaf - L.E.H (sec)	179.61
Standard Deviation	0%
DaCapo Benchmark - H2 (msec)	3251
Standard Deviation	6.4%
DaCapo Benchmark - Jython (msec)	4605
Standard Deviation	0.9%
DaCapo Benchmark - Tradesoap (msec)	8754
Standard Deviation	2.4%
DaCapo Benchmark - Tradebeans (msec)	3362
Standard Deviation	4.1%
dav1d - Summer Nature 4K (FPS)	70.22
Standard Deviation	0.2%
DeepSpeech - CPU (sec)	72.42842
Standard Deviation	2.1%
Embree - Pathtracer - Crown (FPS)	2.9931
Standard Deviation	0.2%
Facebook RocksDB - Rand Read (Op/s)	20698578
Standard Deviation	0.1%
Facebook RocksDB - Seq Fill (Op/s)	692957
Standard Deviation	0.6%

Facebook RocksDB - Read While Writing (Op/s)	501718
Standard Deviation	0.6%
GEGL - Crop (sec)	10.155
Standard Deviation	1.7%
GEGL - Cartoon (sec)	113.152
Standard Deviation	0.1%
GEGL - Reflect (sec)	37.594
Standard Deviation	0%
GEGL - Antialias (sec)	49.017
Standard Deviation	0.1%
GEGL - Color Enhance (sec)	72.683
Standard Deviation	0.1%
GEGL - Rotate 90 Degrees (sec)	50.722
Standard Deviation	0.1%
GIMP - rotate (sec)	14.517
Standard Deviation	0.9%
GIMP - auto-levels (sec)	15.283
Standard Deviation	0.2%
GIMP - unsharp-mask (sec)	17.459
Standard Deviation	0.1%
GNU Octave Benchmark (sec)	8.360
Standard Deviation	1.2%
GraphicsMagick - Rotate (Iterations/min)	663
Standard Deviation	1.4%
GraphicsMagick - Sharpen (Iterations/min)	39
GraphicsMagick - Enhanced (Iterations/min)	74
GraphicsMagick - Resizing (Iterations/min)	371
Standard Deviation	0.3%
Himeno Benchmark - P.P.S (MFLOPS)	3127
Standard Deviation	0.2%
Intel Open Image Denoise - Memorial (Images / Sec)	3.74
Standard Deviation	0%
John The Ripper - Blowfish (Real C/S)	5625
libjpeg-turbo tjbench - D.T (Megapixels/sec)	166.074071
Standard Deviation	0%
MBW - Memory Copy - 4096 MiB (MiB/s)	13120
Standard Deviation	0.3%
MBW - M.C.F.B.S - 4096 MiB (MiB/s)	8981
Standard Deviation	0.4%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	4.73923
Standard Deviation	0.2%
NAS Parallel Benchmarks - BT.C (Mop/s)	14953
Standard Deviation	0.1%
NAS Parallel Benchmarks - FT.C (Mop/s)	8696
Standard Deviation	0.6%
NAS Parallel Benchmarks - L.U.C (Mop/s)	16031
Standard Deviation	0%
NAS Parallel Benchmarks - MG.C (Mop/s)	8284
Standard Deviation	0.1%
NAS Parallel Benchmarks - SP.B (Mop/s)	5095
Standard Deviation	0%
NGINX Benchmark - S.W.P.S (Reqs/sec)	32164
Standard Deviation	0.1%

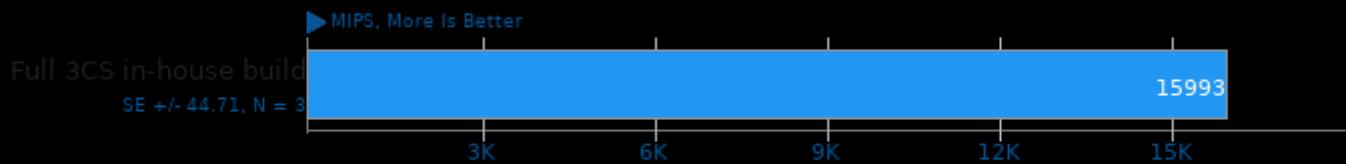
Node.js Express HTTP Load Test (Reqs/sec)	8107
Standard Deviation	0.3%
oneDNN MKL-DNN - D.B.d - f32 (ms)	10.7320
Standard Deviation	0.1%
OpenSSL - R.4.b.P (Signs/sec)	1006
Standard Deviation	2.5%
OSPray - XFrog Forest - SciVis (FPS)	0.80
Standard Deviation	0.1%
OSPray - M.R - SciVis (FPS)	5.09
Standard Deviation	0.3%
Parboil - OpenMP LBM (sec)	113.797686
Standard Deviation	0.1%
Parboil - OpenMP Stencil (sec)	19.526615
Standard Deviation	0.9%
Parboil - O.M.G (sec)	28.087967
Standard Deviation	9.4%
PHPBench - P.B.S (Score)	621174
Standard Deviation	0.3%
PyBench - T.F.A.T.T (Milliseconds)	1177
Standard Deviation	0.1%
Radiance Benchmark - SMP Parallel (sec)	259.568
RAMspeed SMP - Add - Integer (MB/s)	23146
Standard Deviation	0.1%
RAMspeed SMP - Copy - Integer (MB/s)	20958
Standard Deviation	0.1%
RAMspeed SMP - Scale - Integer (MB/s)	20903
Standard Deviation	0%
RAMspeed SMP - Average - Integer (MB/s)	22011
Standard Deviation	0%
RAMspeed SMP - Add - Floating Point (MB/s)	23097
Standard Deviation	0%
RAMspeed SMP - Copy - Floating Point (MB/s)	20963
Standard Deviation	0.1%
RAMspeed SMP - Scale - Floating Point (MB/s)	21003
Standard Deviation	0%
RAMspeed SMP - Average - Floating Point (MB/s)	22038
Standard Deviation	0%
rav1e - 9 (FPS)	1.895
Standard Deviation	0.6%
Redis - GET (Reqs/sec)	2219749
Standard Deviation	4.9%
Redis - SET (Reqs/sec)	1650169
Standard Deviation	0.8%
Renaissance - Scala Dotty (ms)	1865
Standard Deviation	1.1%
Renaissance - Rand Forest (ms)	1881
Standard Deviation	0.8%
Renaissance - Apache Spark ALS (ms)	2506
Standard Deviation	1.2%
Renaissance - Apache Spark Bayes (ms)	387.795
Standard Deviation	4.9%
Renaissance - Savina Reactors.IO (ms)	11812
Standard Deviation	8.5%

Renaissance - A.S.P (ms)	4622
Standard Deviation	7.8%
Renaissance - T.H.R (ms)	1552
Standard Deviation	3.3%
Renaissance - I.M.D.S (ms)	4309
Standard Deviation	4%
Renaissance - A.U.C.T (ms)	8578
Standard Deviation	8.5%
Renaissance - G.A.U.J.F (ms)	1778
Standard Deviation	1.1%
Rodinia - OpenMP LavaMD (sec)	795.518
Standard Deviation	0%
Rodinia - OpenMP CFD Solver (sec)	54.525
Standard Deviation	0.1%
Rodinia - O.S (sec)	38.413
Standard Deviation	0%
SQLite Speedtest - Timed Time - Size 1,000 (sec)	76.361
Standard Deviation	0.6%
Stream - Copy (MB/s)	30474
Standard Deviation	0.1%
Stream - Scale (MB/s)	20093
Standard Deviation	0.1%
Stream - Triad (MB/s)	22466
Standard Deviation	0%
Stream - Add (MB/s)	22517
Standard Deviation	0.1%
Sysbench - Memory (MiB/sec)	9874
Standard Deviation	1.4%
Sysbench - CPU (Events/sec)	4906
Standard Deviation	0%
Timed Linux Kernel Compilation - Time To Compile (sec)	272.098
Standard Deviation	0.7%
Timed LLVM Compilation - Time To Compile (sec)	1865
Standard Deviation	0.1%
Timed MrBayes Analysis - P.P.A (sec)	98.657
Standard Deviation	0.2%
Timed PHP Compilation - Time To Compile (sec)	127.543
Standard Deviation	0.1%
Tungsten Renderer - Water Caustic (sec)	57.9406
Standard Deviation	0.2%
VP9 libvpx Encoding - Speed 5 (FPS)	21.65
Standard Deviation	2.5%
x264 - H.2.V.E (FPS)	29.72
Standard Deviation	3%
x265 - Bosphorus 4K (FPS)	6.47
Standard Deviation	1.6%
x265 - Bosphorus 1080p (FPS)	28.02
Standard Deviation	0.7%
XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	73.702
Standard Deviation	0.3%
Zstd Compression - 3 - Compression Speed (MB/s)	1627
Standard Deviation	0.9%
Zstd Compression - 3 - D.S (MB/s)	3162

	Standard Deviation	0.1%
Zstd Compression - 8 - Compression Speed (MB/s)	245.9	
	Standard Deviation	1.9%
	Zstd Compression - 8 - D.S (MB/s)	3269
	Standard Deviation	0.1%
Zstd Compression - 19 - Compression Speed (MB/s)	14.8	
	Standard Deviation	0%
	Zstd Compression - 19 - D.S (MB/s)	2933
	Standard Deviation	0.4%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	796.8	
	Standard Deviation	0.6%
	Zstd Compression - 3, Long Mode - D.S (MB/s)	3359
	Standard Deviation	0.2%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	258.6	
	Standard Deviation	1.3%
	Zstd Compression - 8, Long Mode - D.S (MB/s)	3483
	Standard Deviation	0.1%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	12.6	
	Standard Deviation	0.5%
	Zstd Compression - 19, Long Mode - D.S (MB/s)	2941
	Standard Deviation	0.2%

7-Zip Compression 16.02

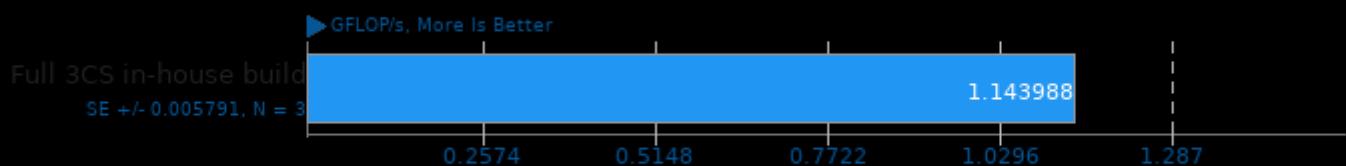
Compress Speed Test



1. (CXX) g++ options: -pipe -lpthread

ACES DGEMM 1.0

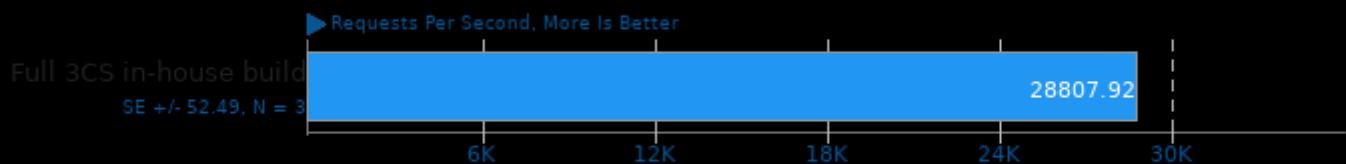
Sustained Floating-Point Rate



1. (CC) gcc options: -O3 -march=native -fopenmp

Apache Benchmark 2.4.29

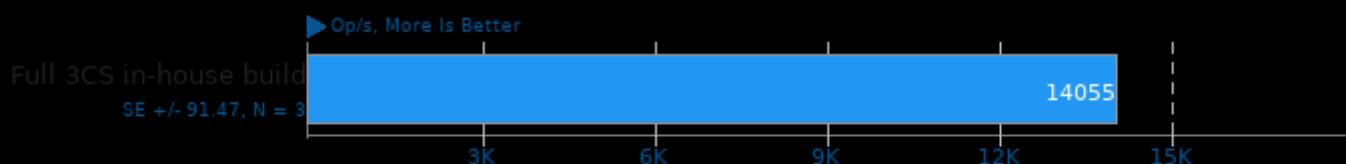
Static Web Page Serving



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

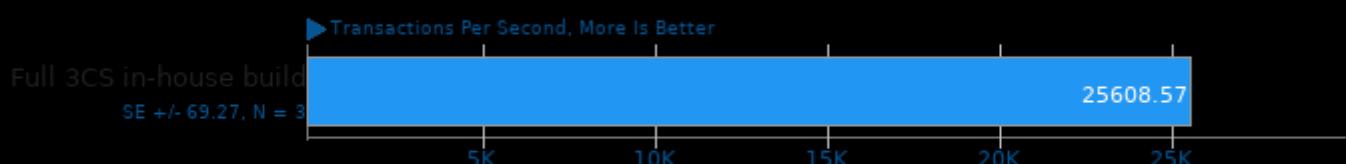
Apache Cassandra 3.11.4

Test: Writes



Apache Siege 2.4.29

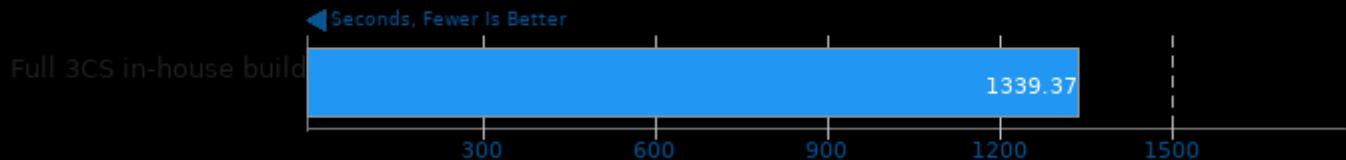
Concurrent Users: 100



1. (CC) gcc options: -O2 -lpthread -ldl -lssl -lcrypto

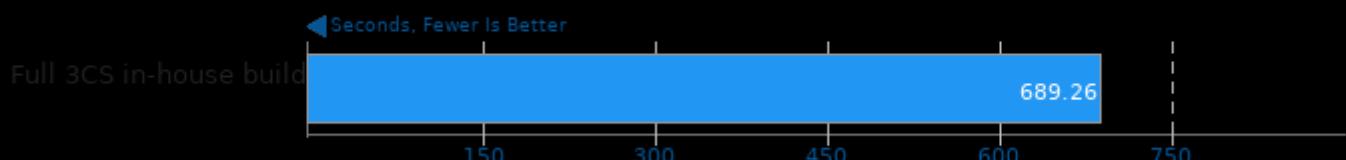
Appleseed 2.0 Beta

Scene: Emily



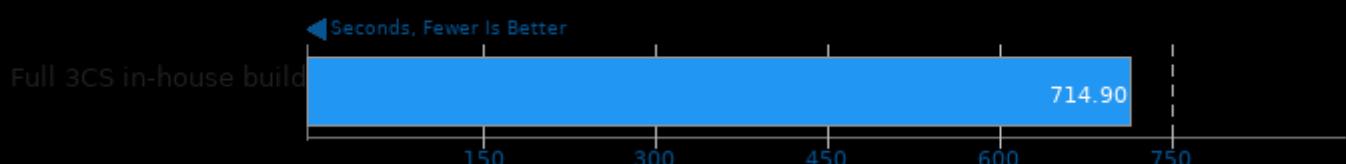
Appleseed 2.0 Beta

Scene: Disney Material



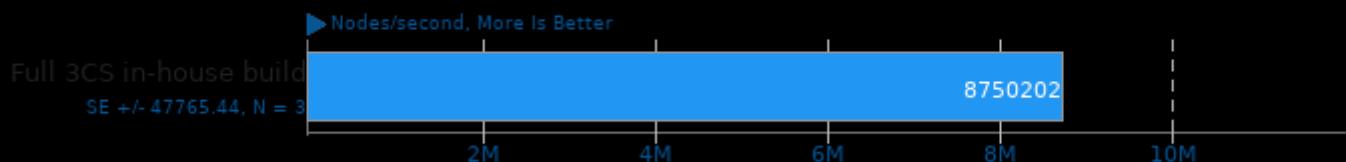
Appleseed 2.0 Beta

Scene: Material Tester



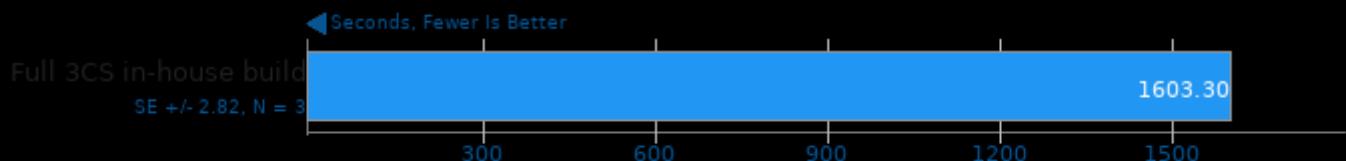
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



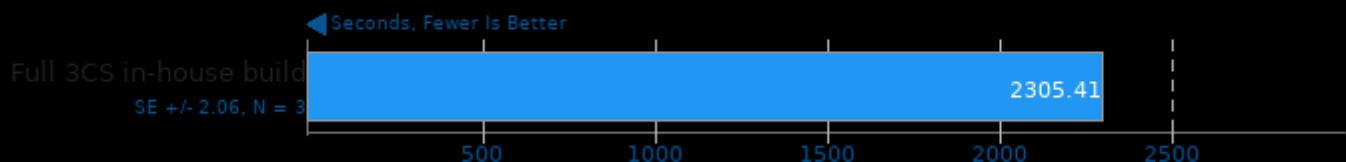
Blender 2.92

Blend File: Classroom - Compute: CPU-Only



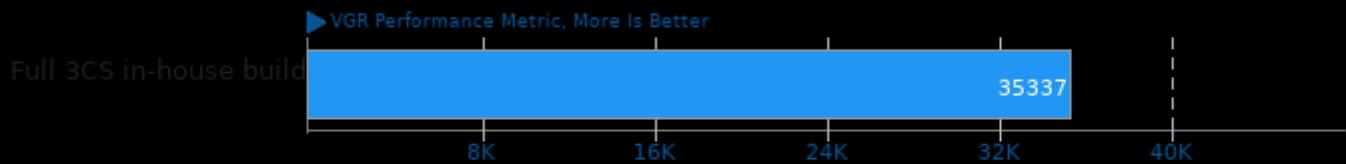
Blender 2.92

Blend File: Barbershop - Compute: CPU-Only



BRL-CAD 7.30.8

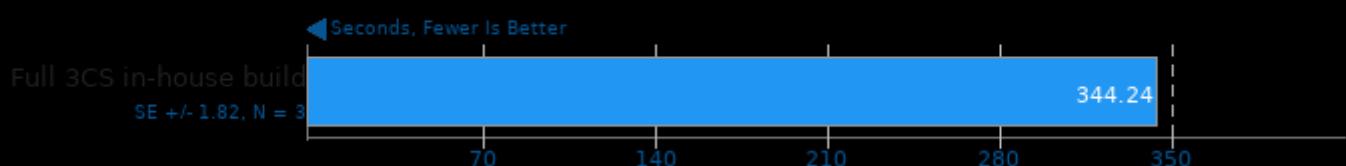
VGR Performance Metric



l. (CXX) g++ options: -std=c++11 -pipe -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-ptx -fstrength-reduce

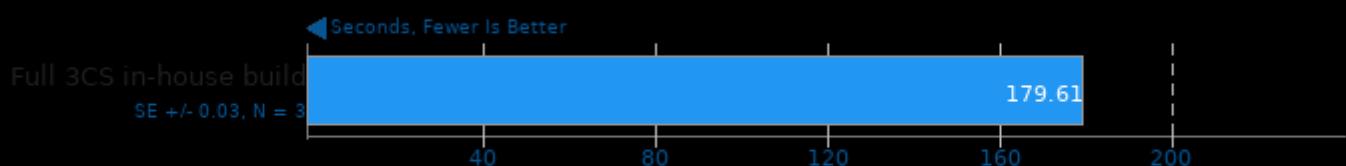
Build2 0.13

Time To Compile



CloverLeaf

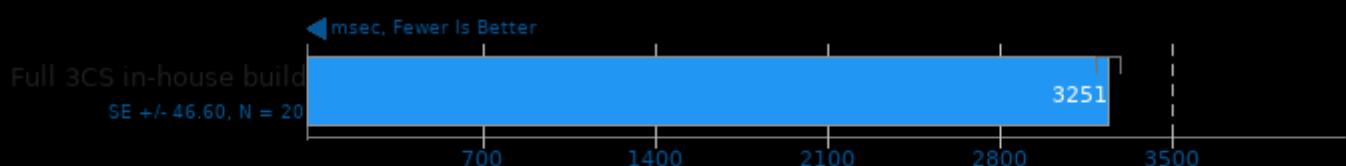
Lagrangian-Eulerian Hydrodynamics



l. (F9X) gfortran options: -O3 -march=native -funroll-loops -fopenmp

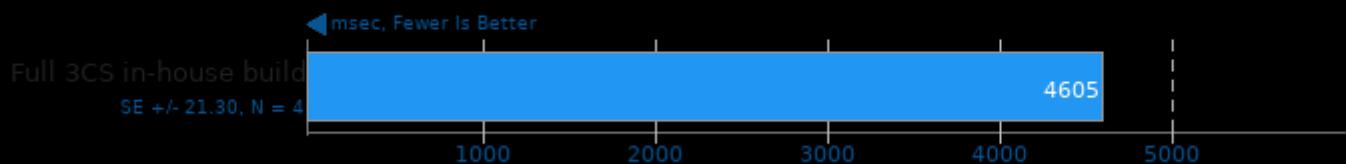
DaCapo Benchmark 9.12-MR1

Java Test: H2



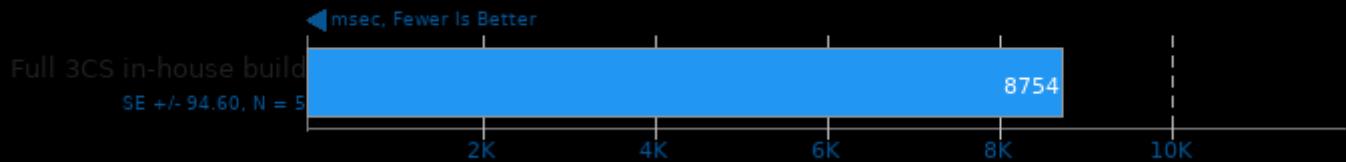
DaCapo Benchmark 9.12-MR1

Java Test: Jython



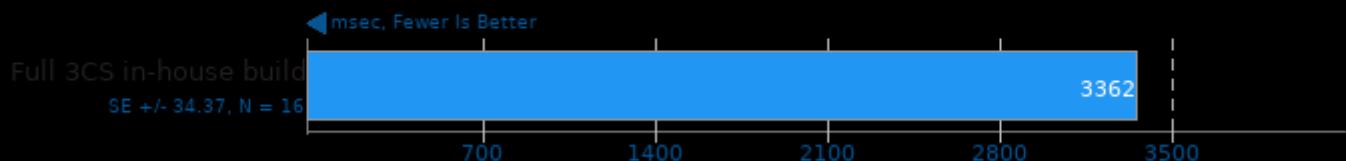
DaCapo Benchmark 9.12-MR1

Java Test: Tradesoap



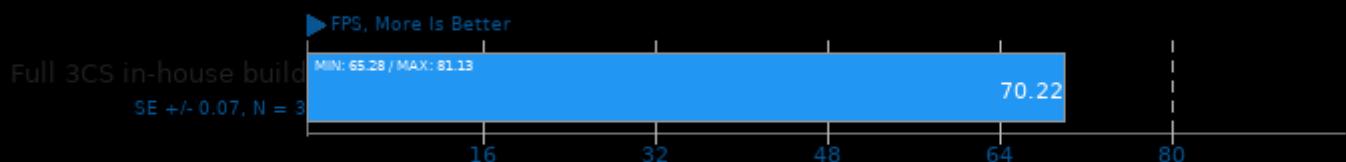
DaCapo Benchmark 9.12-MR1

Java Test: Tradebeans



dav1d 0.8.2

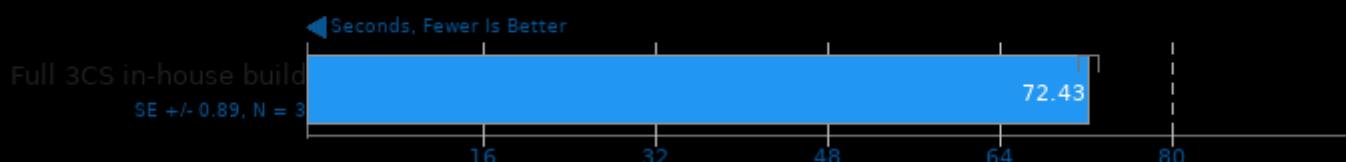
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread -lm

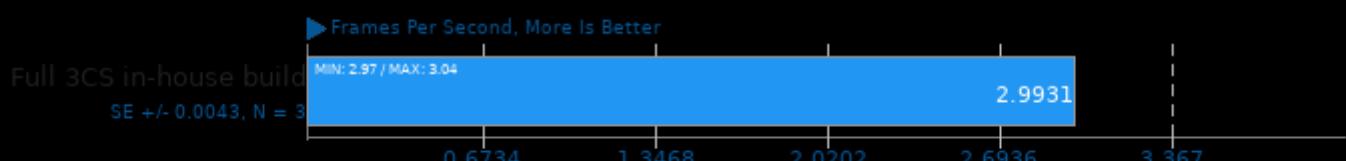
DeepSpeech 0.6

Acceleration: CPU



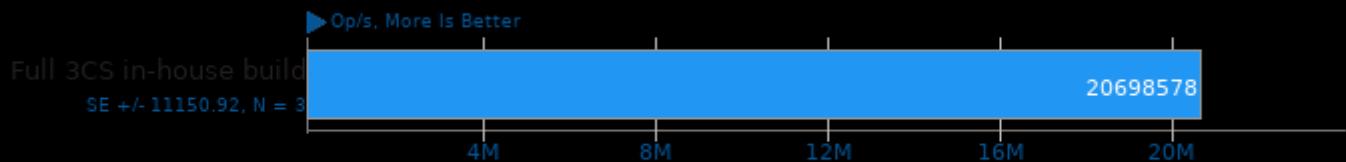
Embree 3.9.0

Binary: Pathtracer - Model: Crown



Facebook RocksDB 6.3.6

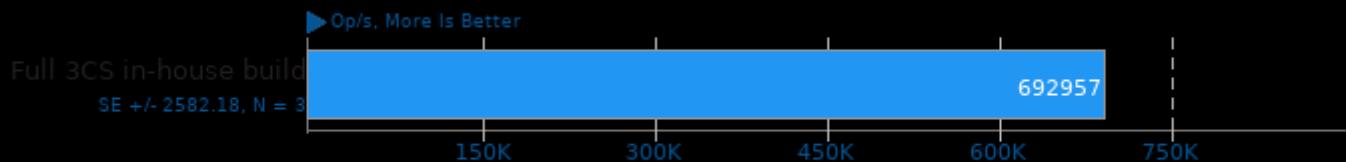
Test: Random Read



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -fno-rtti -rdynamic -lpthread

Facebook RocksDB 6.3.6

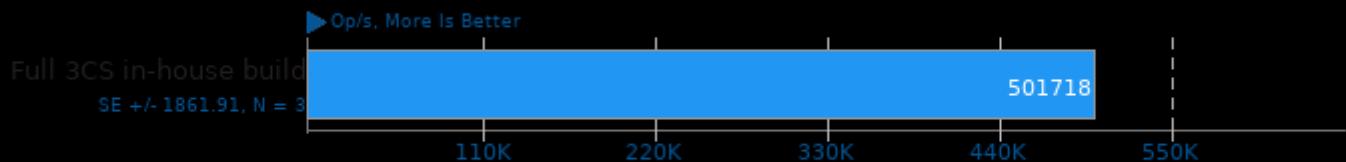
Test: Sequential Fill



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -fno-rtti -rdynamic -lpthread

Facebook RocksDB 6.3.6

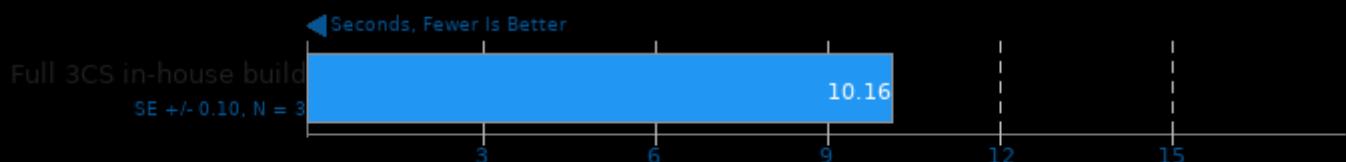
Test: Read While Writing



1. (CXX) g++ options: -O3 -march=native -std=c++11 -fno-built-in-memcmp -fno-rtti -rdynamic -lpthread

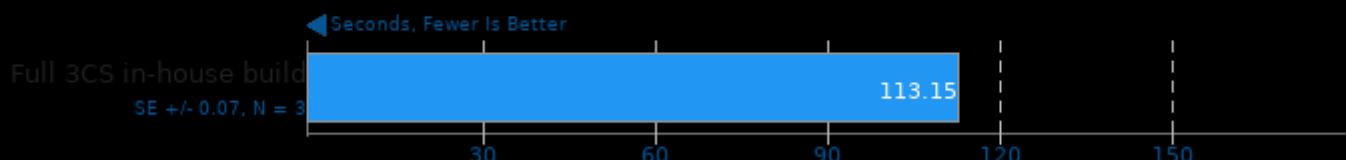
GEGL

Operation: Crop



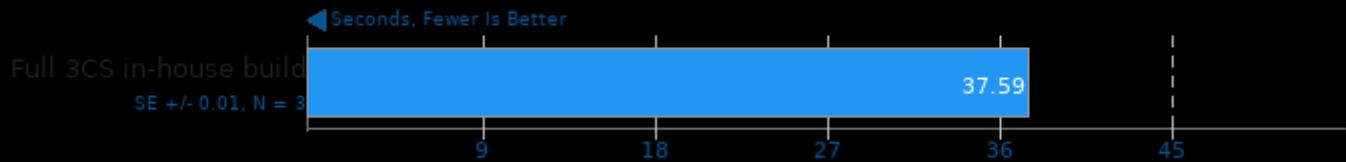
GEGL

Operation: Cartoon

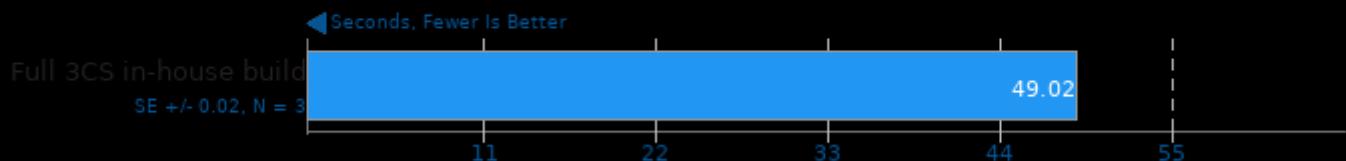


GEGL

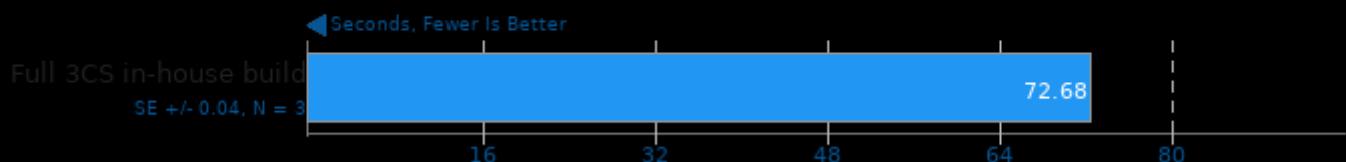
Operation: Reflect

**GEGL**

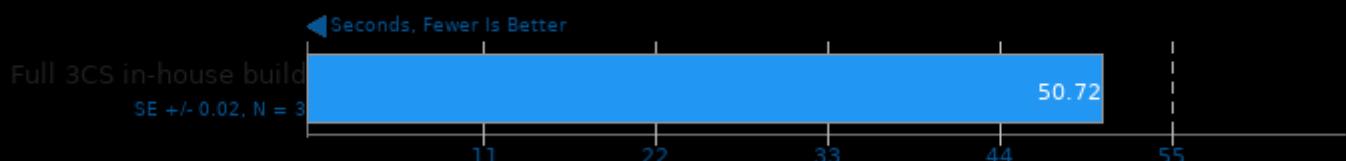
Operation: Antialias

**GEGL**

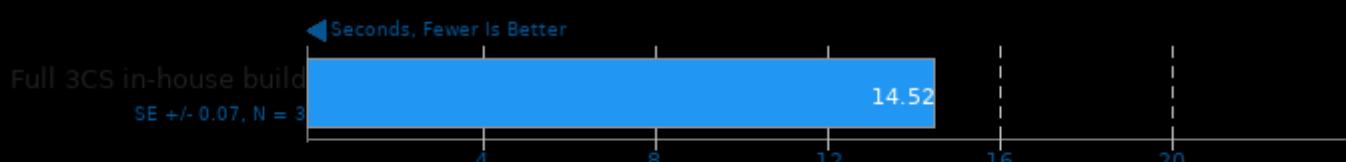
Operation: Color Enhance

**GEGL**

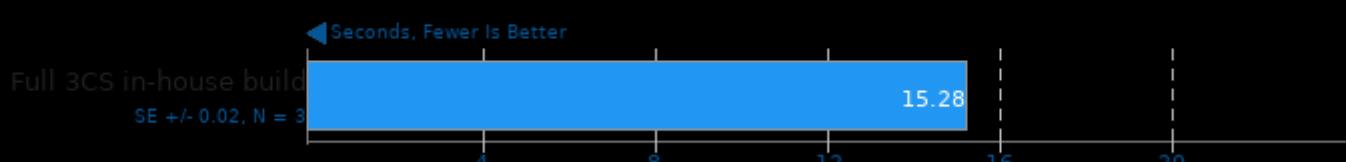
Operation: Rotate 90 Degrees

**GIMP 2.10.18**

Test: rotate

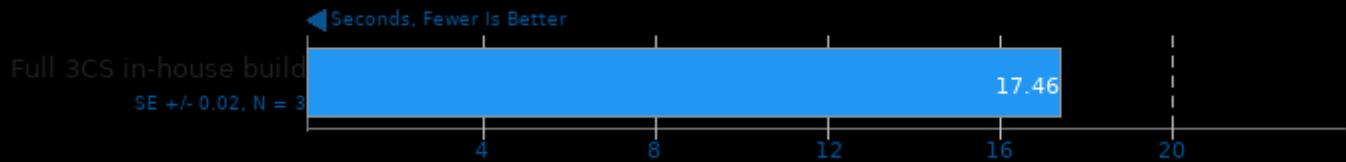
**GIMP 2.10.18**

Test: auto-levels

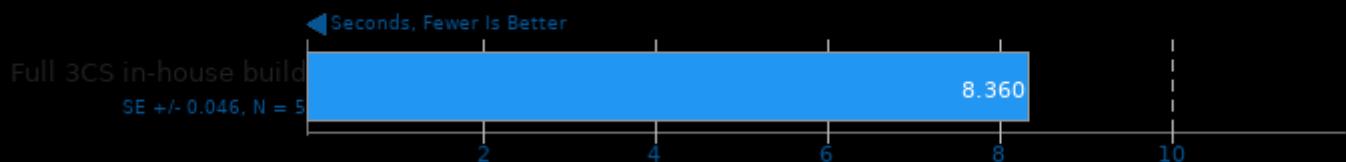


GIMP 2.10.18

Test: unsharp-mask

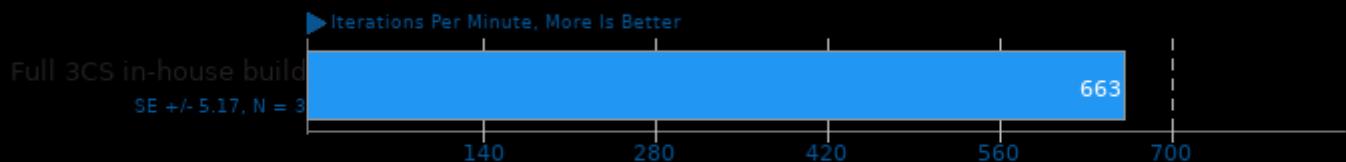


GNU Octave Benchmark 5.2.0



GraphicsMagick 1.3.33

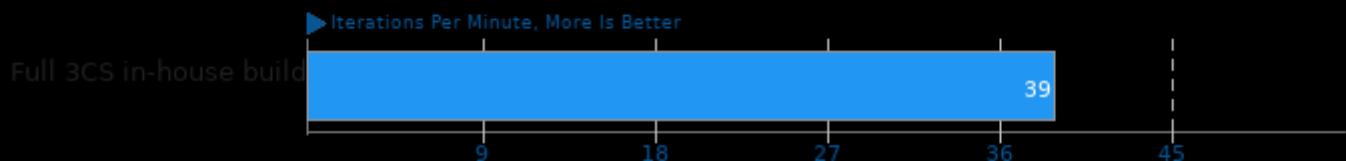
Operation: Rotate



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -ltiff -lfreetype -ljpeg -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

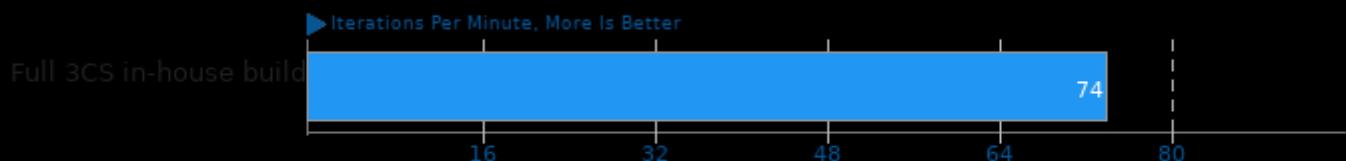
Operation: Sharpen



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -ltiff -lfreetype -ljpeg -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

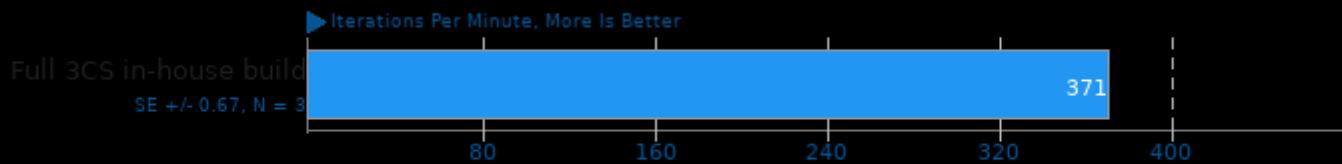
Operation: Enhanced



1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -ltiff -lfreetype -ljpeg -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33

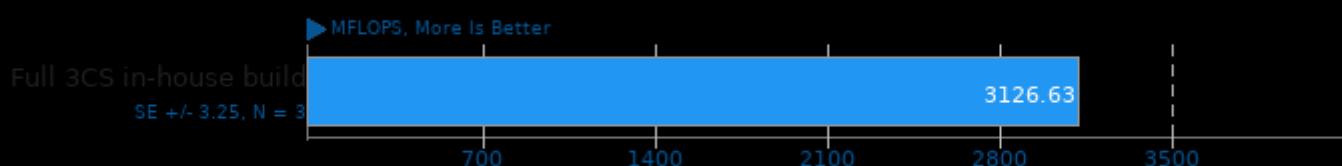
Operation: Resizing



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

Himeno Benchmark 3.0

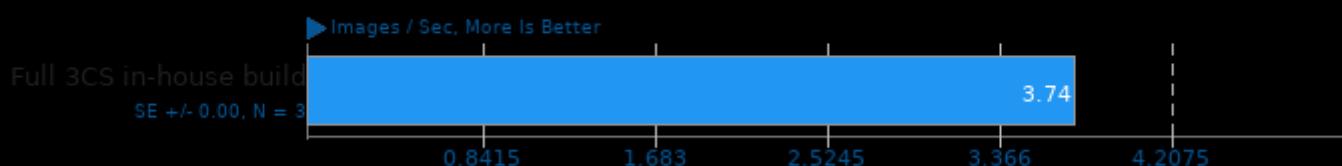
Poisson Pressure Solver



1. (CC) gcc options: -O3 -mavx2

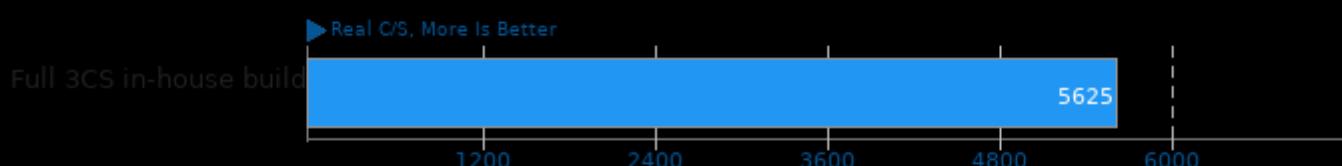
Intel Open Image Denoise 1.2.0

Scene: Memorial



John The Ripper 1.9.0-jumbo-1

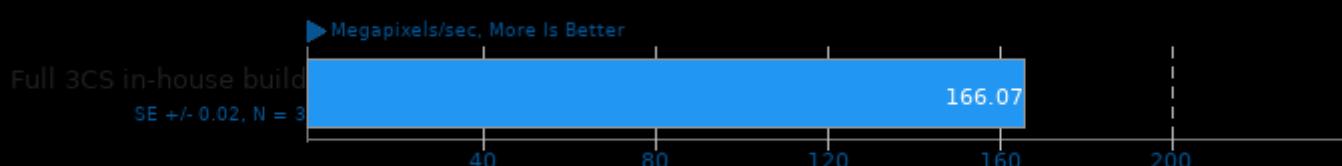
Test: Blowfish



1. (CC) gcc options: -m64 -lssl -lcrypto -fopenmp -lgmp -pthread -lm -lz -ldl -lcrypt -lbz2

libjpeg-turbo tjbench 2.0.2

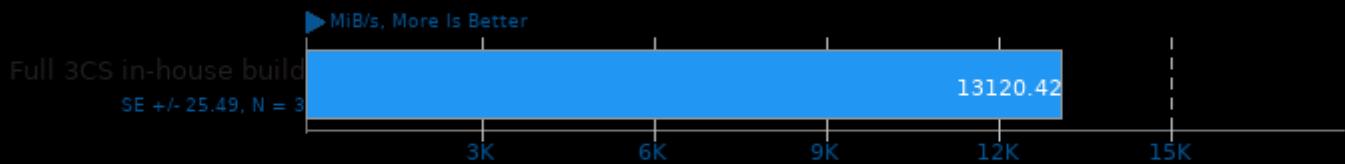
Test: Decompression Throughput



1. (CC) gcc options: -O3 -rdynamic

MBW 2018-09-08

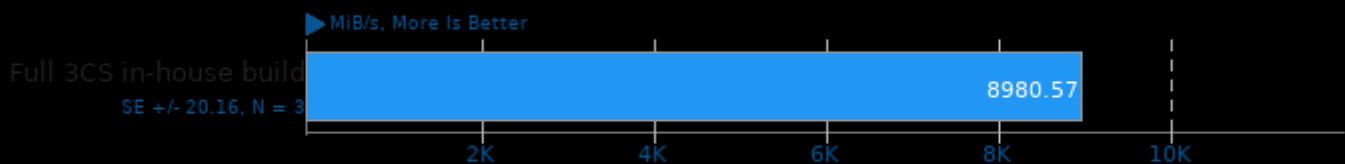
Test: Memory Copy - Array Size: 4096 MiB



1. (CC) gcc options: -O3 -march=native

MBW 2018-09-08

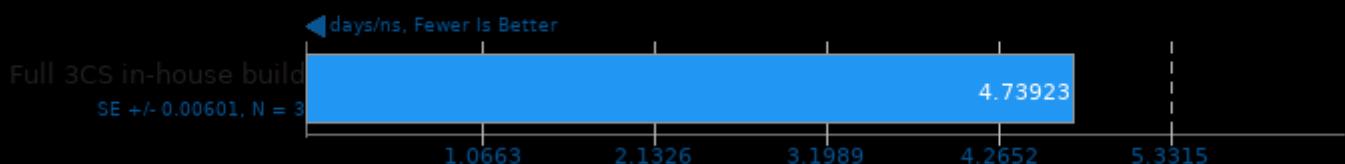
Test: Memory Copy, Fixed Block Size - Array Size: 4096 MiB



1. (CC) gcc options: -O3 -march=native

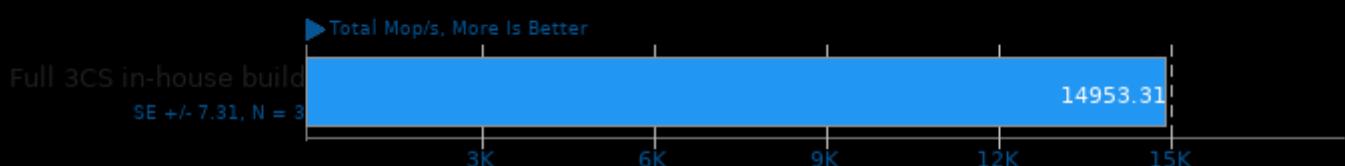
NAMD 2.14

ATPase Simulation - 327,506 Atoms



NAS Parallel Benchmarks 3.4

Test / Class: BT.C

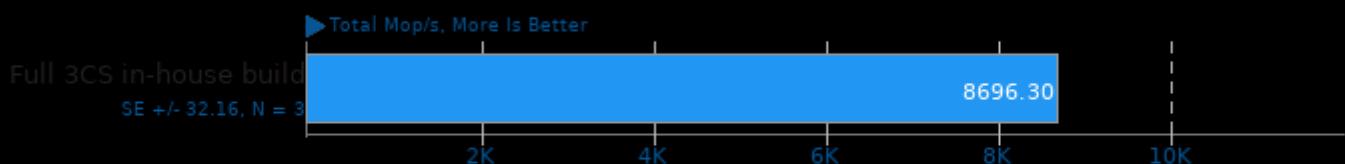


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: FT.C

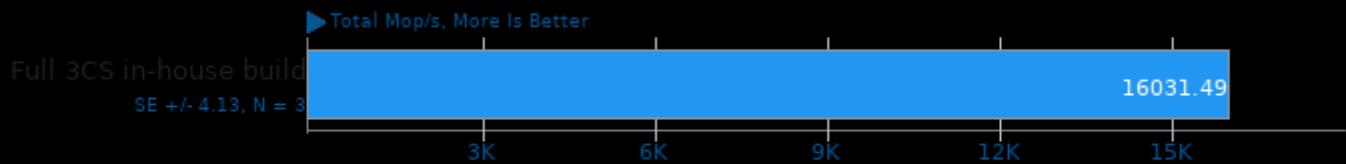


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

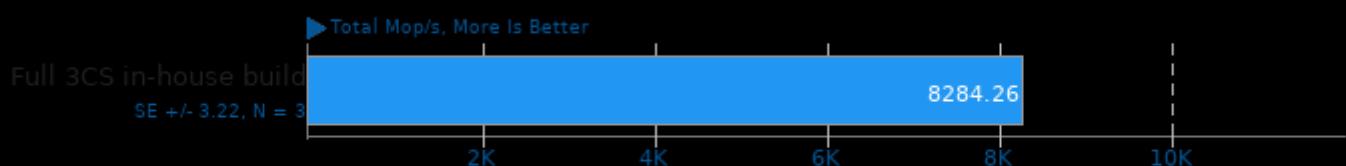
Test / Class: LU.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

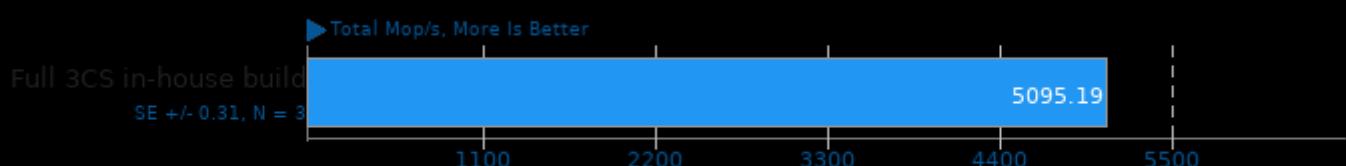
Test / Class: MG.C



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

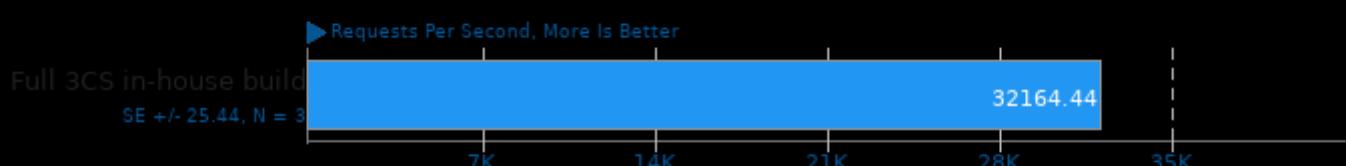
Test / Class: SP.B



1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

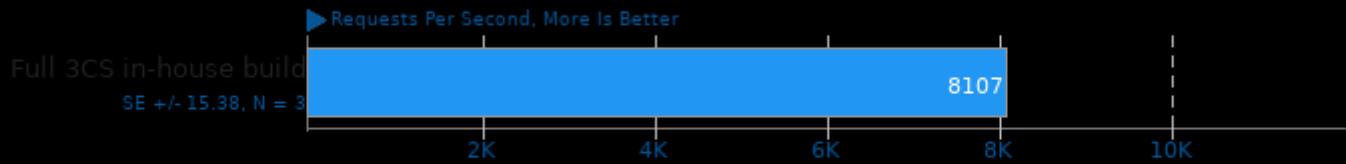
NGINX Benchmark 1.9.9

Static Web Page Serving



1. (CC) gcc options: -lpthread -lcrypt -lcrypto -lz -O3 -march=native

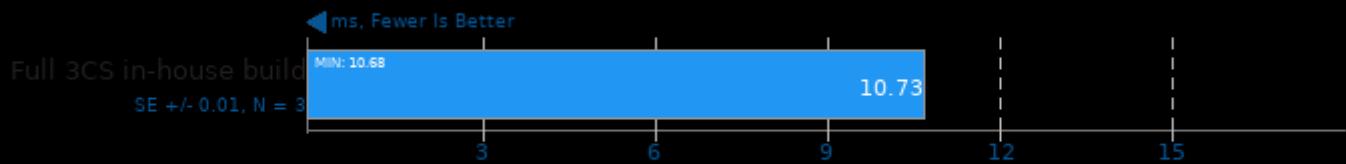
Node.js Express HTTP Load Test



1. Nodejs
v10.19.0

oneDNN MKL-DNN 1.3

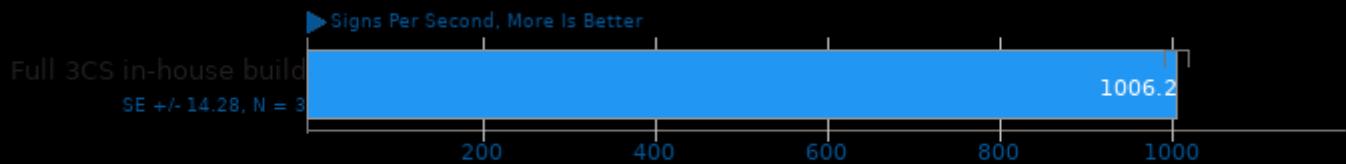
Harness: Deconvolution Batch deconv_1d - Data Type: f32



1. (CXX) g++ options: -O3 -march=native -std=c++11 -msse4.1 -fPIC -fopenmp -pie -pthread -lrt -ldl

OpenSSL 1.1.1

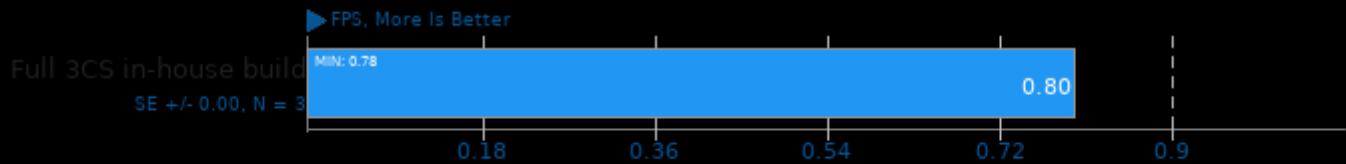
RSA 4096-bit Performance



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

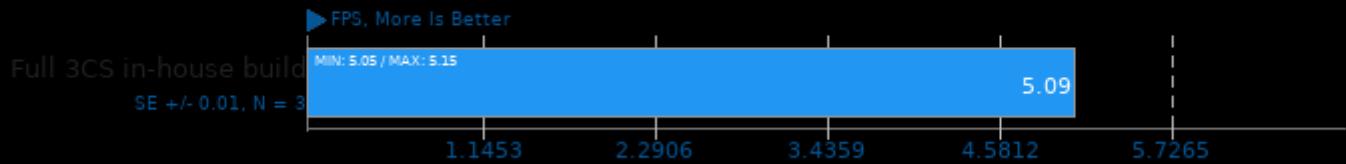
OSPray 1.8.5

Demo: XFrog Forest - Renderer: SciVis



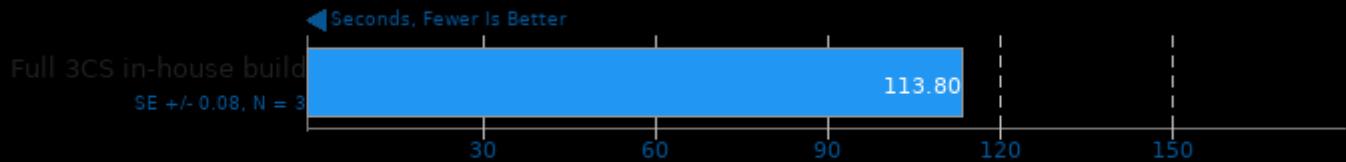
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis



Parboil 2.5

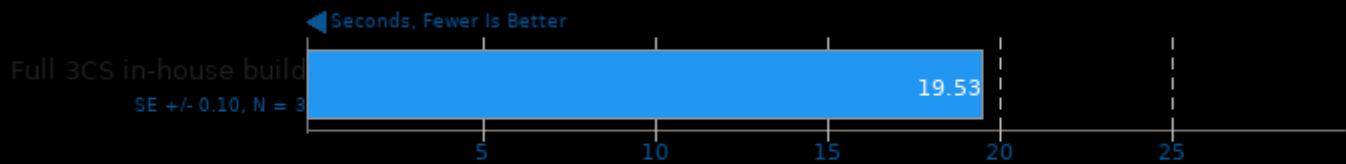
Test: OpenMP LBM



1. (CXX) g++ options: -lm -lpthread -lgomp -O3 -ffast-math -fopenmp

Parboil 2.5

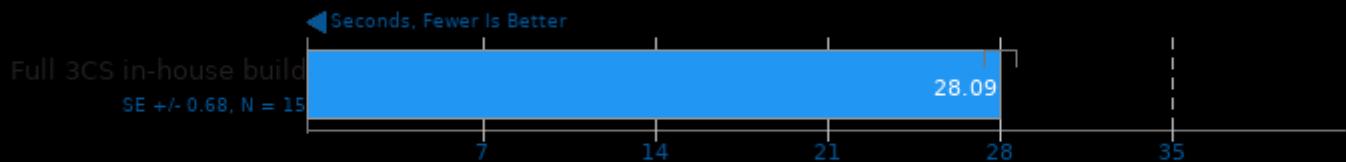
Test: OpenMP Stencil



1. (CXX) g++ options: -lm -lpthread -lgomp -O3 -ffast-math -fopenmp

Parboil 2.5

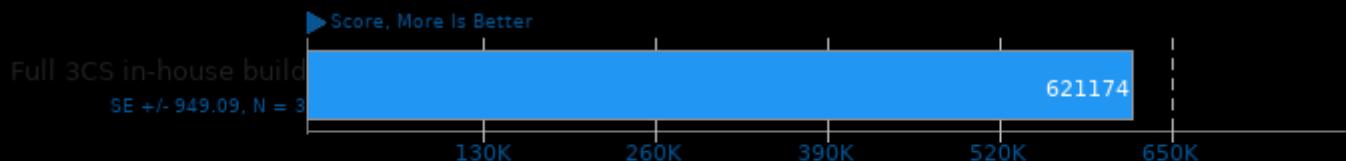
Test: OpenMP MRI Gridding



1. (CXX) g++ options: -lm -lpthread -lgomp -O3 -ffast-math -fopenmp

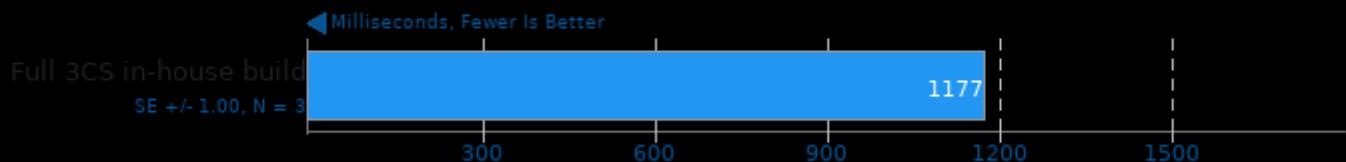
PHPBench 0.8.1

PHP Benchmark Suite



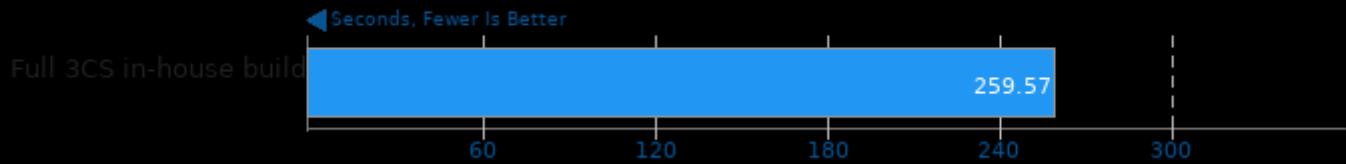
PyBench 2018-02-16

Total For Average Test Times



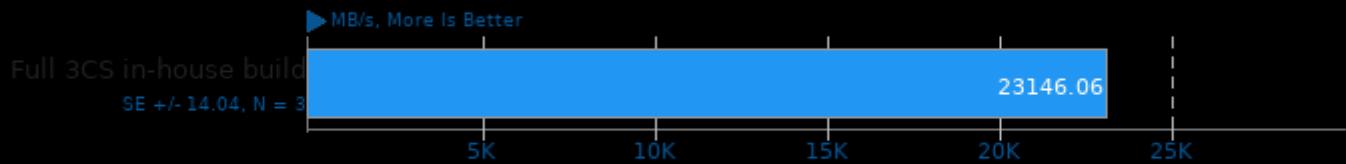
Radiance Benchmark 5.0

Test: SMP Parallel



RAMspeed SMP 3.5.0

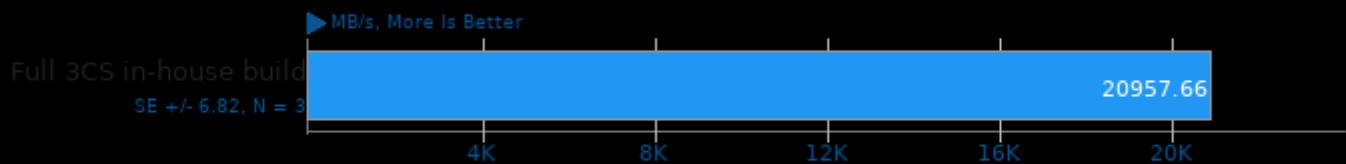
Type: Add - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

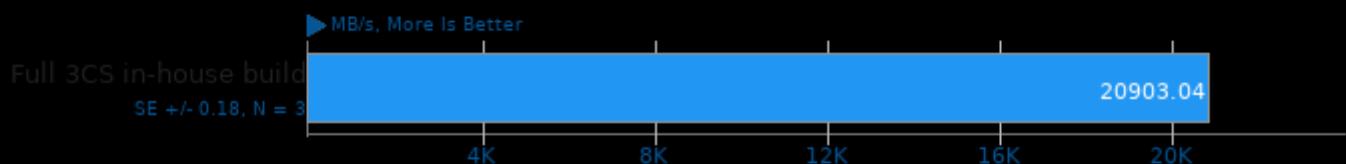
Type: Copy - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

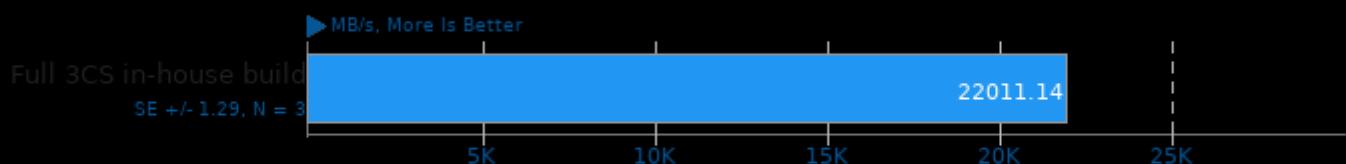
Type: Scale - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

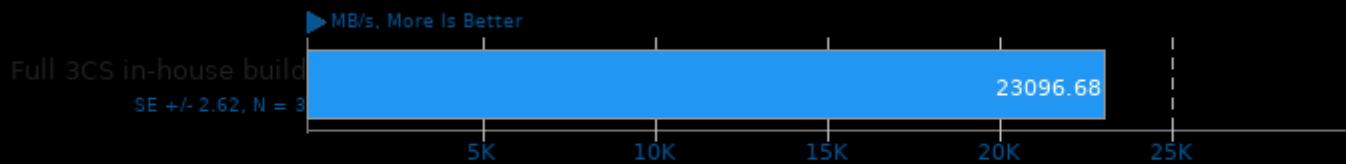
Type: Average - Benchmark: Integer



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

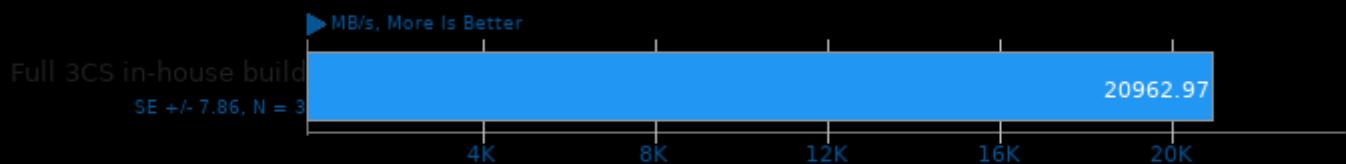
Type: Add - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

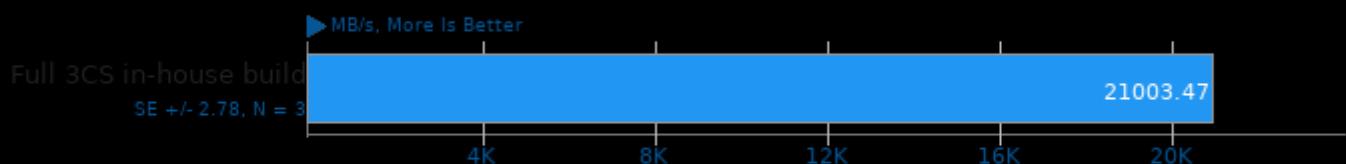
Type: Copy - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

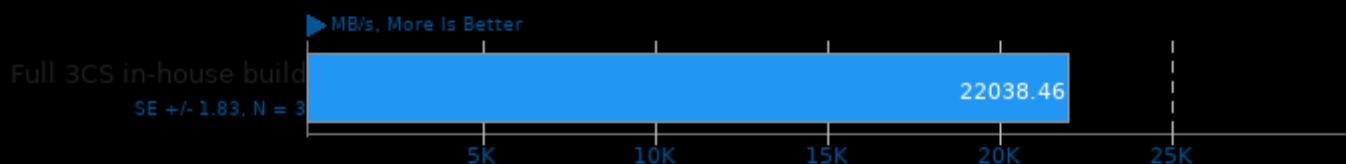
Type: Scale - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

RAMspeed SMP 3.5.0

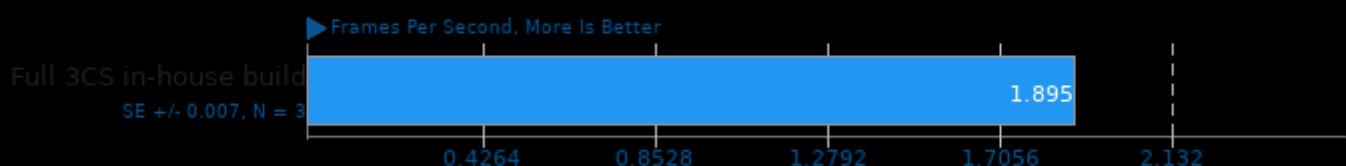
Type: Average - Benchmark: Floating Point



1. (CC) gcc options: -O3 -march=native

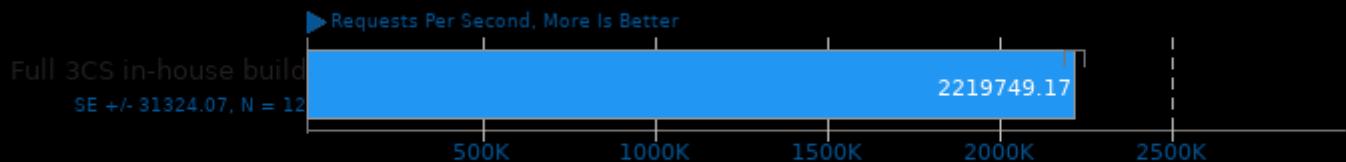
rav1e 0.4

Speed: 9



Redis 6.0.9

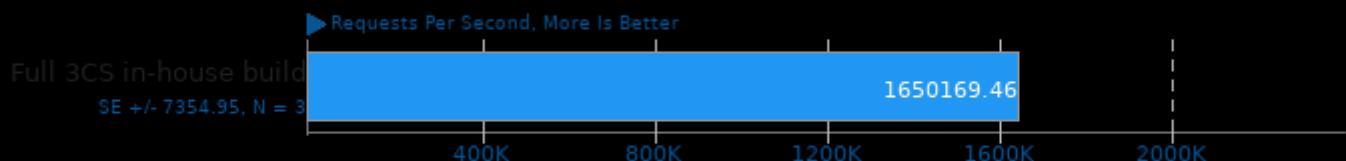
Test: GET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

Redis 6.0.9

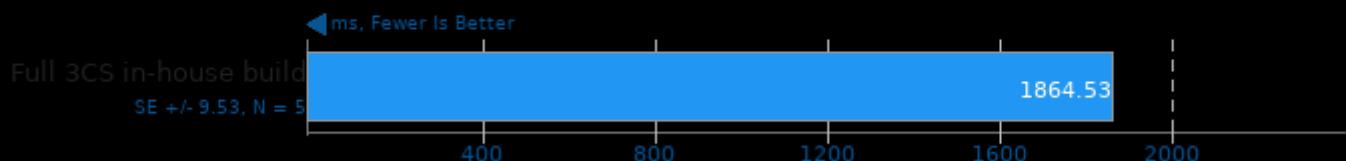
Test: SET



1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

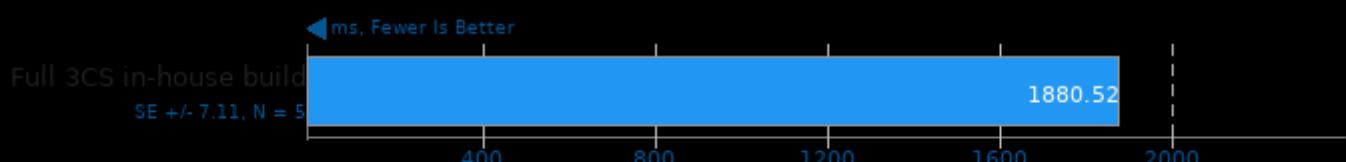
Renaissance 0.10.0

Test: Scala Dotty



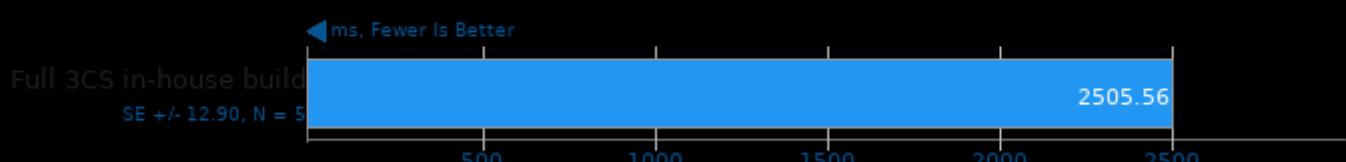
Renaissance 0.10.0

Test: Random Forest



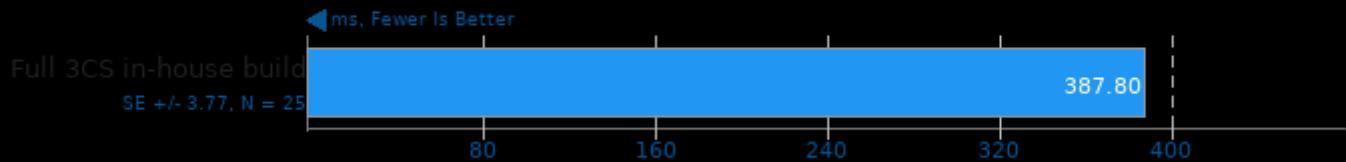
Renaissance 0.10.0

Test: Apache Spark ALS



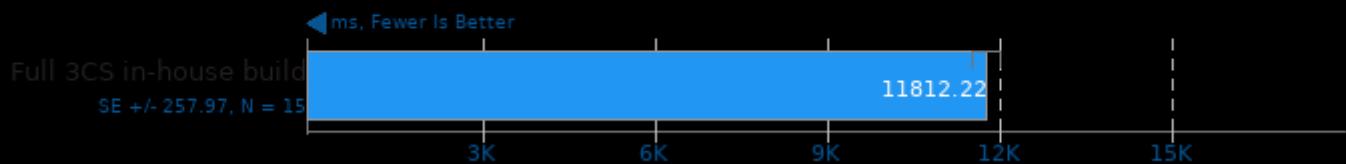
Renaissance 0.10.0

Test: Apache Spark Bayes



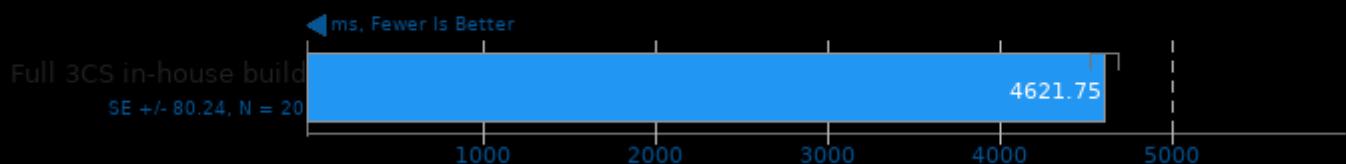
Renaissance 0.10.0

Test: Savina Reactors.IO



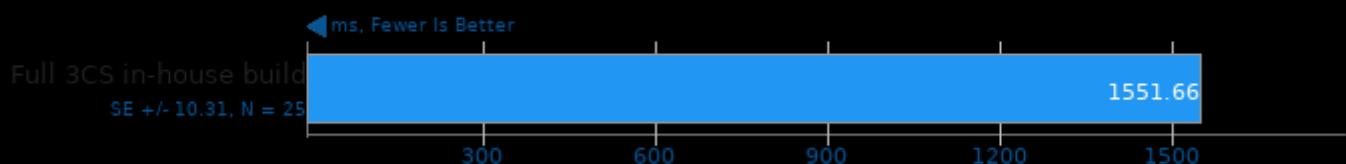
Renaissance 0.10.0

Test: Apache Spark PageRank



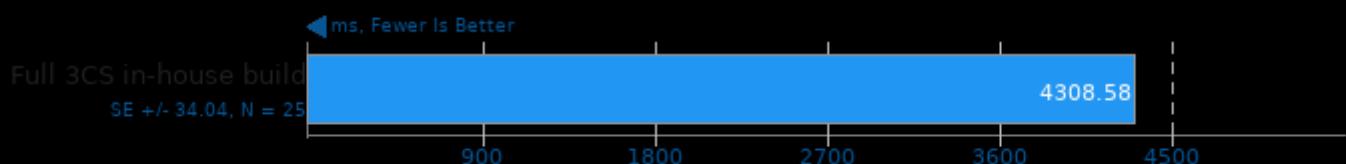
Renaissance 0.10.0

Test: Twitter HTTP Requests



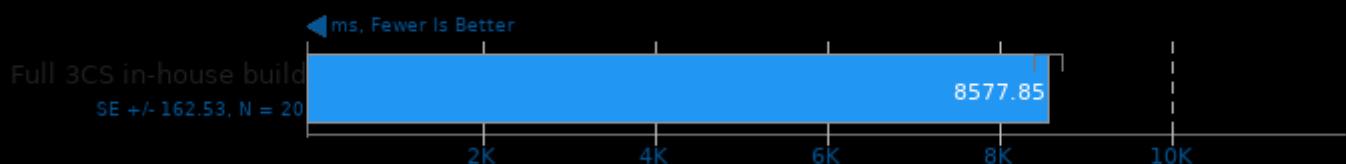
Renaissance 0.10.0

Test: In-Memory Database Shootout



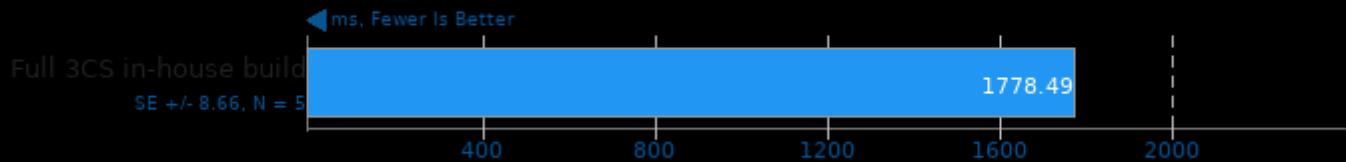
Renaissance 0.10.0

Test: Akka Unbalanced Cobwebbed Tree



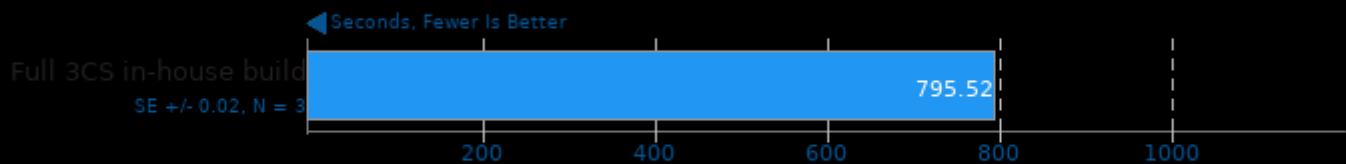
Renaissance 0.10.0

Test: Genetic Algorithm Using Jenetics + Futures



Rodinia 3.1

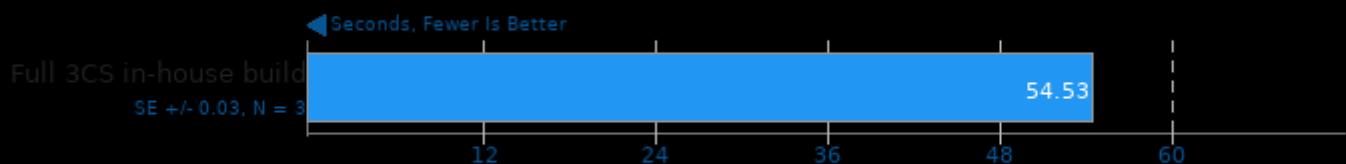
Test: OpenMP LavaMD



1. (CXX) g++ options: -O2 -fOpenCL

Rodinia 3.1

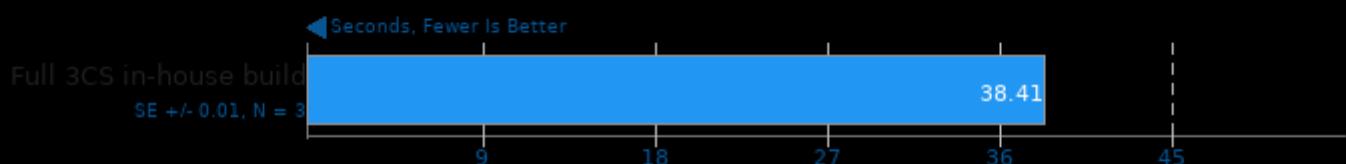
Test: OpenMP CFD Solver



1. (CXX) g++ options: -O2 -fOpenCL

Rodinia 3.1

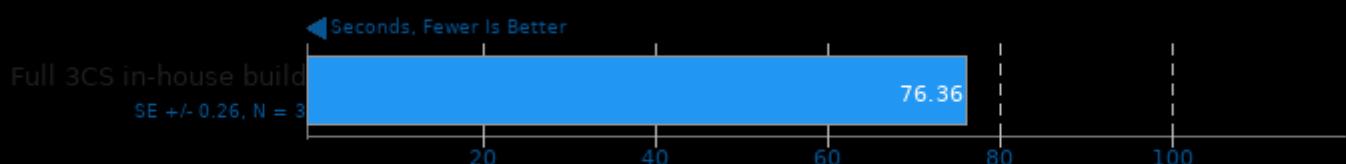
Test: OpenMP Streamcluster



1. (CXX) g++ options: -O2 -fOpenCL

SQLite Speedtest 3.30

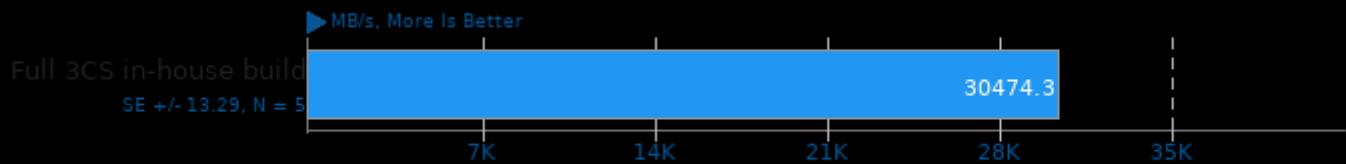
Timed Time - Size 1,000



1. (CC) gcc options: -O2 -fopencl -fopencl-mem-realloc

Stream 2013-01-17

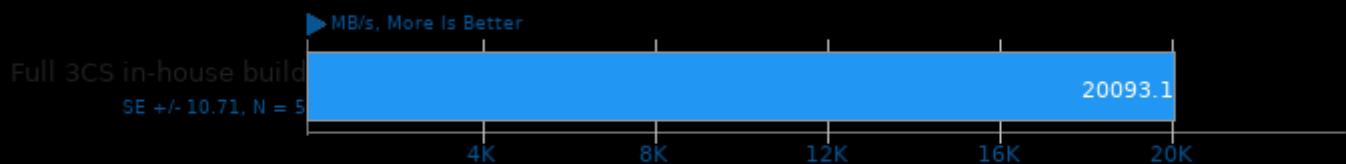
Type: Copy



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

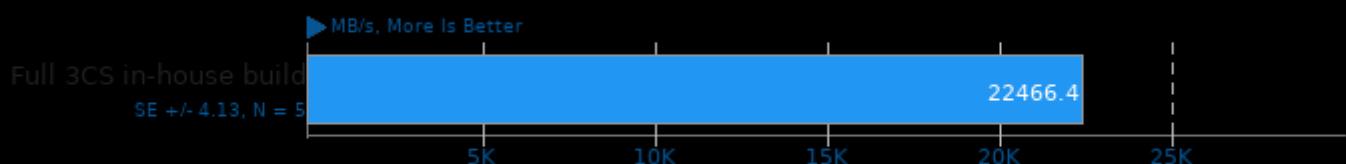
Type: Scale



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

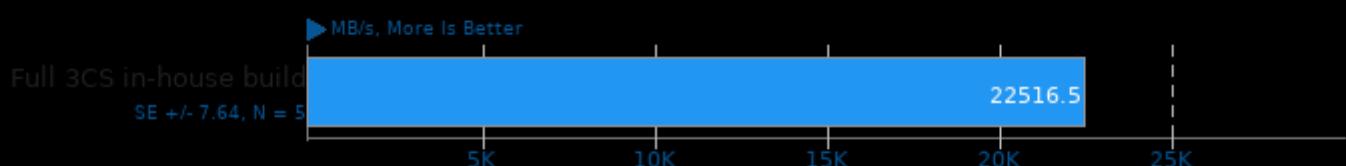
Type: Triad



1. (CC) gcc options: -O3 -march=native -fopenmp

Stream 2013-01-17

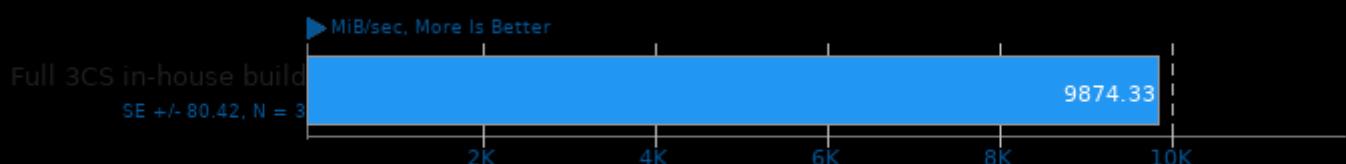
Type: Add



1. (CC) gcc options: -O3 -march=native -fopenmp

Sysbench 1.0.20

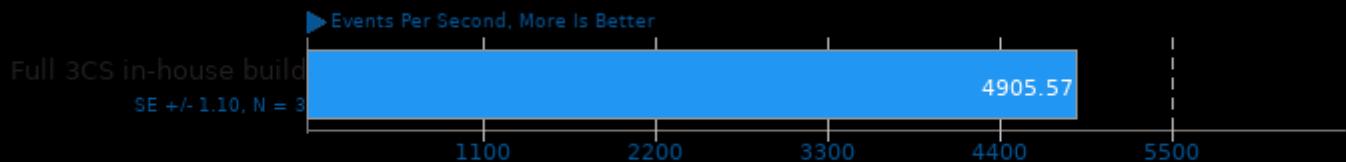
Test: Memory



1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -laio -lm

Sysbench 1.0.20

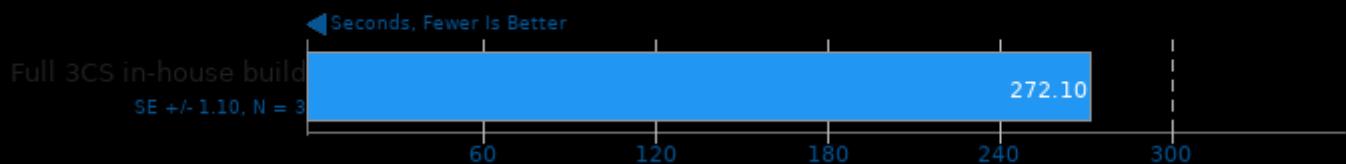
Test: CPU



1. (CC) gcc options: -pthread -O2 -funroll-loops -rdynamic -ldl -laio -lm

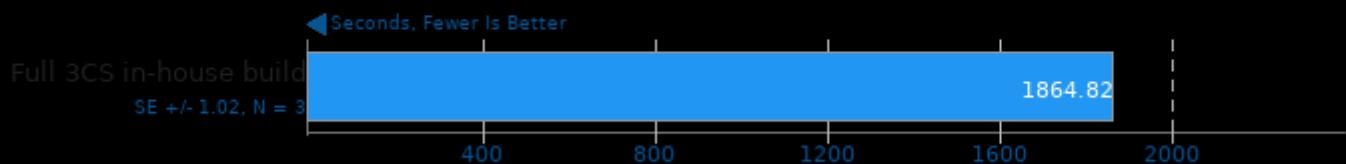
Timed Linux Kernel Compilation 5.10.20

Time To Compile



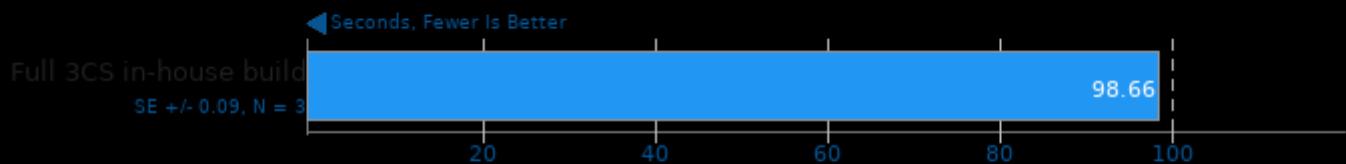
Timed LLVM Compilation 10.0

Time To Compile



Timed MrBayes Analysis 3.2.7

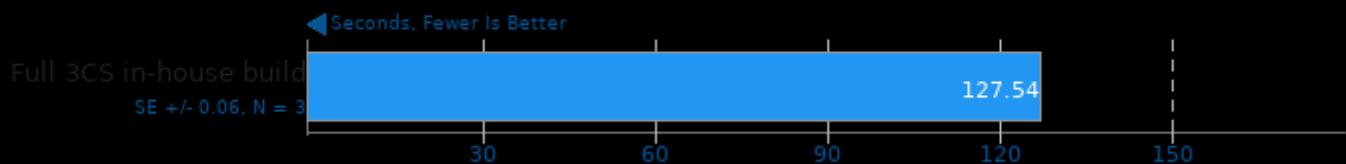
Primate Phylogeny Analysis



1. (CC) gcc options: -mmmx -msse -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -maes -mavx -mfma -mavx2 -mrdrnd -mbmi -mbmi2 -madx -mmpx -mabm

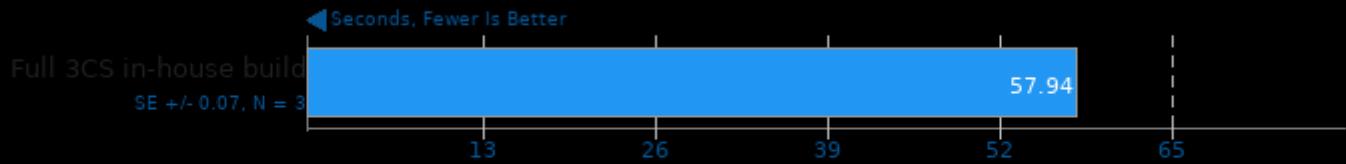
Timed PHP Compilation 7.4.2

Time To Compile



Tungsten Renderer 0.2.2

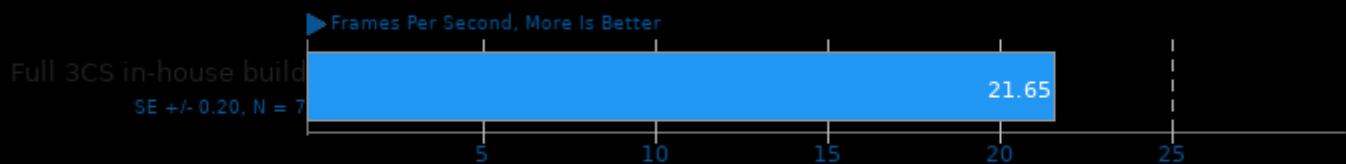
Scene: Water Caustic



1. (CXX) g++ options: -std=c++0x -march=skylake -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mno-sse4a -mno-avx -mno-avx2 -mno-wo

VP9 libvpx Encoding 1.8.2

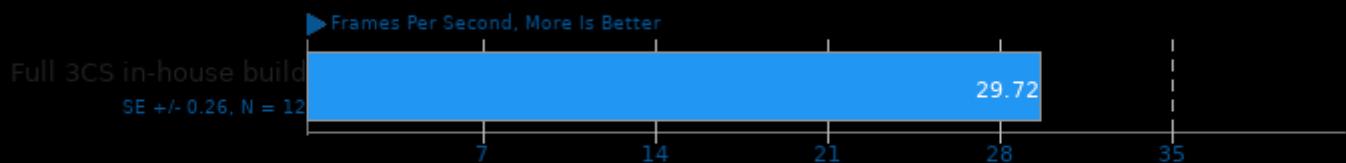
Speed: Speed 5



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=c++11

x264 2019-12-17

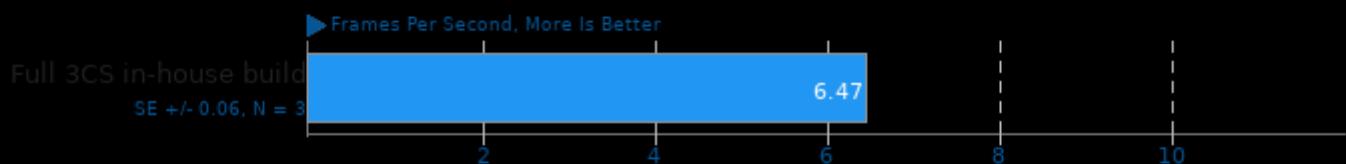
H.264 Video Encoding



1. (CC) gcc options: -ldl -lavformat -lavcodec -lavutil -lswscale -m64 -lm -lpthread -O3 -ffast-math -std=gnu99 -fPIC -fomit-frame-pointer -fno-tree-vectorize

x265 3.4

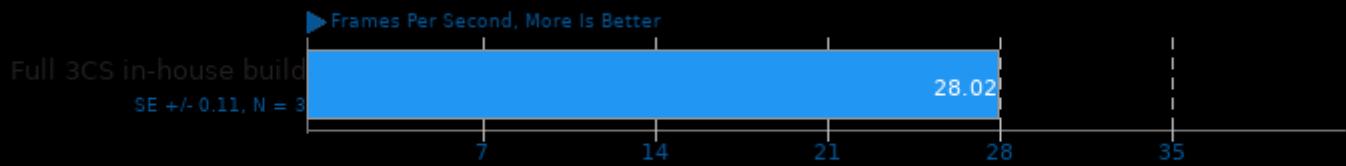
Video Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

x265 3.4

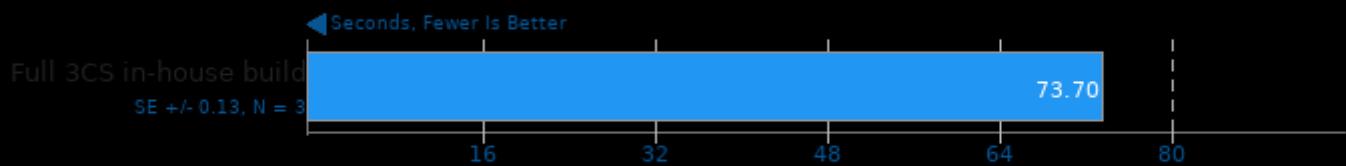
Video Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

XZ Compression 5.2.4

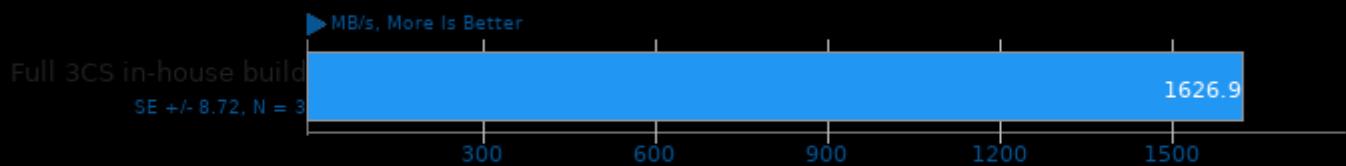
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9



1. (CC) gcc options: -pthread -fvisibility=hidden -O2

Zstd Compression 1.4.9

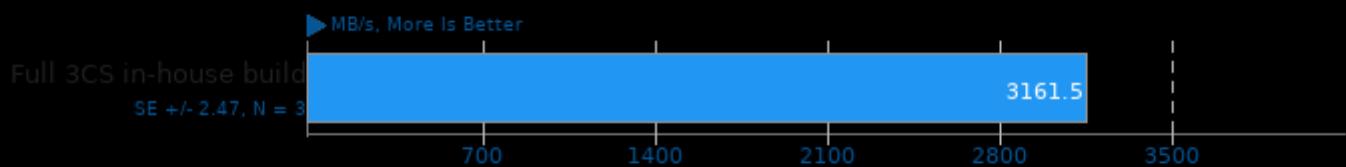
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

Zstd Compression 1.4.9

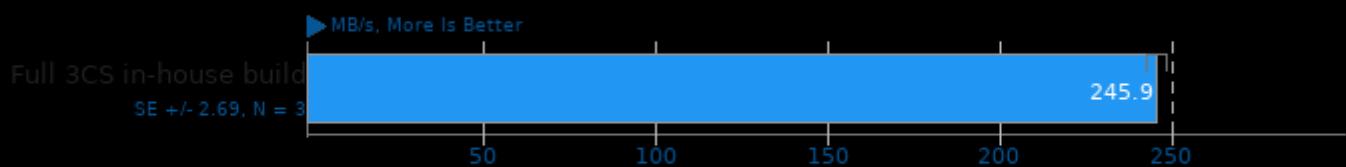
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

Zstd Compression 1.4.9

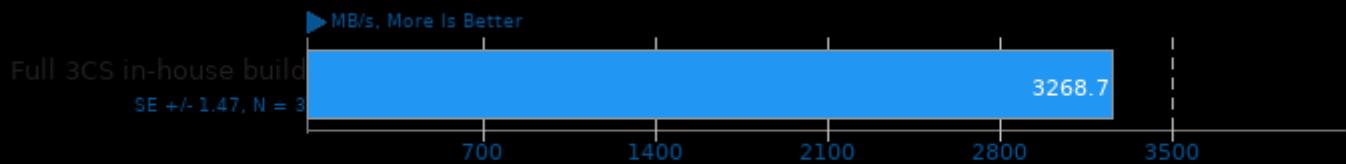
Compression Level: 8 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lzma

Zstd Compression 1.4.9

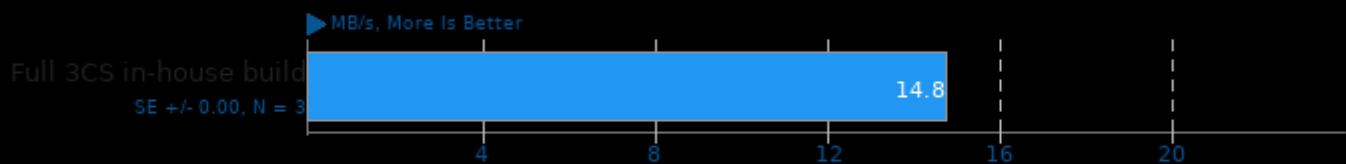
Compression Level: 8 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

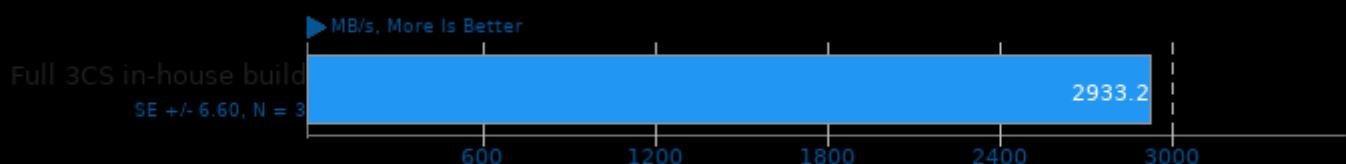
Compression Level: 19 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

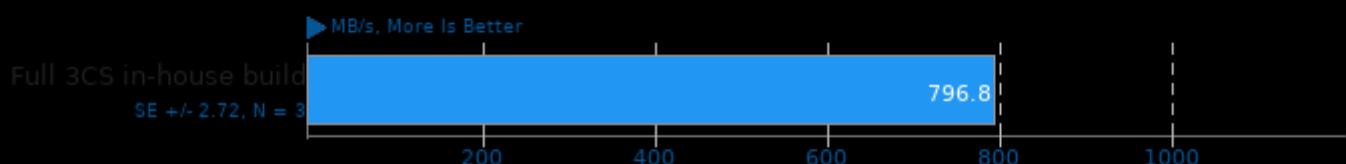
Compression Level: 19 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

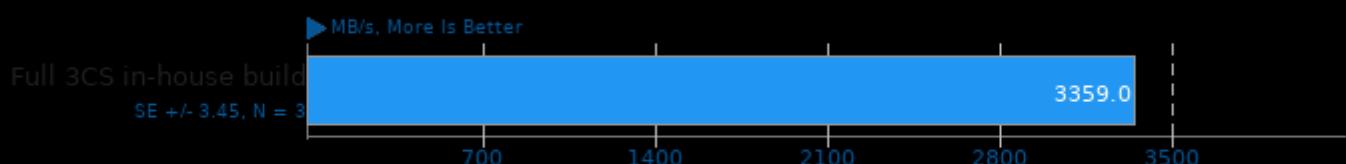
Compression Level: 3, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

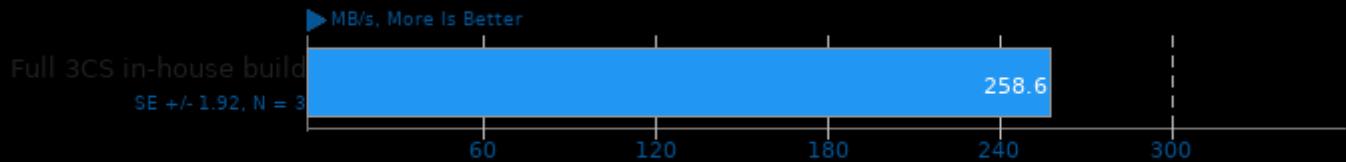
Compression Level: 3, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

Zstd Compression 1.4.9

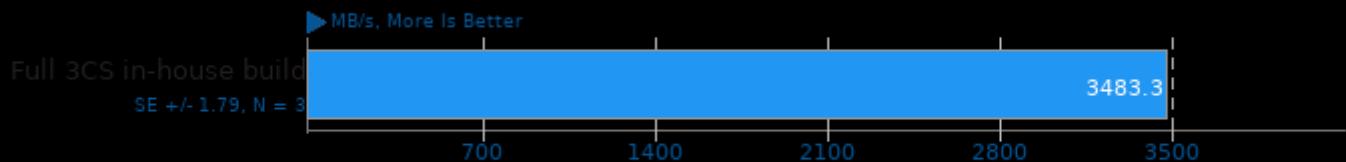
Compression Level: 8, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

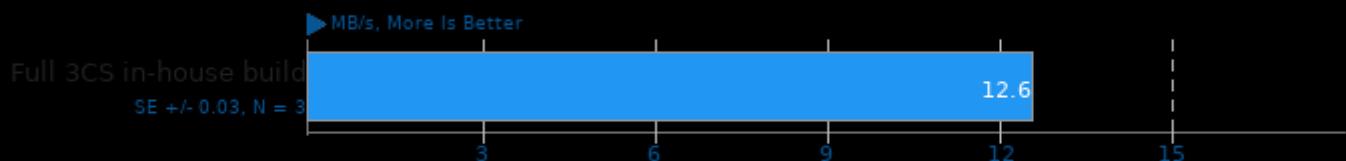
Compression Level: 8, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

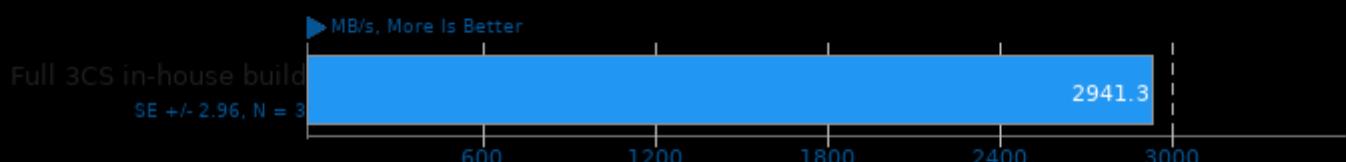
Compression Level: 19, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

Zstd Compression 1.4.9

Compression Level: 19, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 14:53.