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AWSU20-Multicore

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Test Systems:

AWSU20-Multicore

Processor: Intel Xeon Platinum 8275CL (4 Cores / 8 Threads), Motherboard: Amazon EC2 c5.2xlarge (1.0 BIOS), Chipset: Intel 440FX 82441FX PMC, Memory: 16384MB, Disk: 215GB Amazon Elastic Block Store, Network: Amazon Elastic

OS: Ubuntu 20.04, Kernel: 5.4.0-1029-aws (x86_64), Compiler: GCC 9.3.0, File-System: ext4, System Layer: KVM

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-multilib --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
Python Notes: Python 2.7.18 + Python 3.8.5

Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline STIBP: disabled RSB filling + PTE Inversion

AWSU20-Multicore

High Performance Conjugate Gradient (GFLOP/s)	5.24
Standard Deviation	0.1%
NAS Parallel Benchmarks - BT.C (Mop/s)	14338
Standard Deviation	0.5%
NAS Parallel Benchmarks - CG.C (Mop/s)	5324
Standard Deviation	0.5%
NAS Parallel Benchmarks - EP.C (Mop/s)	524.41
Standard Deviation	0.9%
NAS Parallel Benchmarks - EP.D (Mop/s)	527.15
Standard Deviation	0.2%
NAS Parallel Benchmarks - FT.C (Mop/s)	9495
Standard Deviation	0.2%
NAS Parallel Benchmarks - LU.C (Mop/s)	19264
Standard Deviation	0.1%
NAS Parallel Benchmarks - MG.C (Mop/s)	14484
Standard Deviation	0.3%
NAS Parallel Benchmarks - SP.B (Mop/s)	10476
Standard Deviation	0.2%
Parboil - OpenMP LBM (sec)	66.42
Standard Deviation	0.6%
Parboil - OpenMP CUTCP (sec)	8.87
Standard Deviation	0.3%
Parboil - OpenMP Stencil (sec)	12.38
Standard Deviation	2.8%
Parboil - O.M.G (sec)	50.38
Standard Deviation	1%
Rodinia - OpenMP LavaMD (sec)	568.63
Standard Deviation	0%
Rodinia - OpenMP HotSpot3D (sec)	124.33
Standard Deviation	2.5%
Rodinia - OpenMP Leukocyte (sec)	248.93
Standard Deviation	0.3%
Rodinia - OpenMP CFD Solver (sec)	44.90
Standard Deviation	0.5%
Rodinia - O.S (sec)	22.40
Standard Deviation	0%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	4.53251
Standard Deviation	0.1%
Pennant - sedovbig (Hydro Cycle Time - sec)	878.61
Standard Deviation	0%
Pennant - leblancbig (Hydro Cycle Time - sec)	826.96
Standard Deviation	0%
LAMMPS Molecular Dynamics Simulator - 20k Atoms (ns/day)	2.92
Standard Deviation	0.1%
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein	2.77
Standard Deviation	0.4%
libgav1 - Chimera 1080p (FPS)	37.11
Standard Deviation	0.4%
libgav1 - Summer Nature 4K (FPS)	14.66
Standard Deviation	0.2%
libgav1 - S.N.1 (FPS)	62.32
Standard Deviation	0.3%

libgav1 - C.1.1.b (FPS)	16.00
Standard Deviation	0.2%
Zstd Compression - 3 (MB/s)	2846
Standard Deviation	0.7%
Zstd Compression - 19 (MB/s)	25.20
Standard Deviation	0.4%
ArrayFire - BLAS CPU (GFLOPS)	572.35
Standard Deviation	0.6%
John The Ripper - Blowfish (Real C/S)	6887
Standard Deviation	0%
John The Ripper - MD5 (Real C/S)	668125
Standard Deviation	0.6%
GraphicsMagick - Swirl (Iterations/min)	154
Standard Deviation	0.4%
GraphicsMagick - Rotate (Iterations/min)	427
GraphicsMagick - Sharpen (Iterations/min)	32
GraphicsMagick - Enhanced (Iterations/min)	80
GraphicsMagick - Resizing (Iterations/min)	371
Standard Deviation	0.7%
GraphicsMagick - Noise-Gaussian (Iterations/min)	99
GraphicsMagick - HWB Color Space (Iterations/min)	487
Standard Deviation	0.4%
oneDNN - IP Batch 1D - f32 - CPU (ms)	8.80
Standard Deviation	0.6%
oneDNN - IP Batch All - f32 - CPU (ms)	105.13
Standard Deviation	0.4%
oneDNN - IP Batch 1D - u8s8f32 - CPU (ms)	3.38
Standard Deviation	0.9%
oneDNN - IP Batch All - u8s8f32 - CPU (ms)	45.83
Standard Deviation	0.1%
oneDNN - IP Batch 1D - bf16bf16bf16 - CPU (ms)	20.76
Standard Deviation	0.1%
oneDNN - IP Batch All - bf16bf16bf16 - CPU (ms)	273.96
Standard Deviation	0%
oneDNN - C.B.S.A - f32 - CPU (ms)	6.86
Standard Deviation	0.8%
oneDNN - D.B.d - f32 - CPU (ms)	7.74
Standard Deviation	1.8%
oneDNN - D.B.d - f32 - CPU (ms)	9.37
Standard Deviation	0.2%
oneDNN - C.B.S.A - u8s8f32 - CPU (ms)	7.23
Standard Deviation	0.5%
oneDNN - D.B.d - u8s8f32 - CPU (ms)	4.40
Standard Deviation	0.4%
oneDNN - D.B.d - u8s8f32 - CPU (ms)	6.59
Standard Deviation	0.1%
oneDNN - R.N.N.T - f32 - CPU (ms)	579.33
Standard Deviation	3%
oneDNN - R.N.N.I - f32 - CPU (ms)	275.41
Standard Deviation	0.7%
oneDNN - C.B.S.A - bf16bf16bf16 - CPU (ms)	36.16
Standard Deviation	0.1%

oneDNN - D.B.d - bf16bf16bf16 - CPU (ms) 41.47
Standard Deviation 0.1%
oneDNN - D.B.d - bf16bf16bf16 - CPU (ms) 38.47
Standard Deviation 1.3%
oneDNN - M.M.B.S.T - f32 - CPU (ms) 3.02
Standard Deviation 0.7%
oneDNN - M.M.B.S.T - u8s8f32 - CPU (ms) 2.20
Standard Deviation 0.4%
oneDNN - M.M.B.S.T - bf16bf16bf16 - CPU (ms) 7.67
Standard Deviation 0%
dav1d - Chimera 1080p (FPS) 265.84
Standard Deviation 0.4%
dav1d - Summer Nature 4K (FPS) 72.66
Standard Deviation 0.2%
dav1d - S.N.1 (FPS) 245.52
Standard Deviation 0.4%
dav1d - C.1.1.b (FPS) 64.15
Standard Deviation 0.2%
OSPray - San Miguel - SciVis (FPS) 6.06
Standard Deviation 0%
OSPray - XFrog Forest - SciVis (FPS) 0.99
Standard Deviation 0.4%
OSPray - San Miguel - Path Tracer (FPS) 0.54
Standard Deviation 0.3%
OSPray - NASA Streamlines - SciVis (FPS) 7.87
Standard Deviation 0%
OSPray - XFrog Forest - Path Tracer (FPS) 0.55
Standard Deviation 0.2%
OSPray - M.R - SciVis (FPS) 6.80
Standard Deviation 0%
OSPray - NASA Streamlines - Path Tracer (FPS) 1.51
Standard Deviation 0.1%
OSPray - M.R - Path Tracer (FPS) 100
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS) 169.43
Standard Deviation 0.4%
AOM AV1 - Speed 0 Two-Pass (FPS) 0.19
Standard Deviation 0%
AOM AV1 - Speed 4 Two-Pass (FPS) 1.57
Standard Deviation 0%
AOM AV1 - Speed 6 Realtime (FPS) 12.39
Standard Deviation 0.2%
AOM AV1 - Speed 6 Two-Pass (FPS) 2.49
Standard Deviation 0.5%
AOM AV1 - Speed 8 Realtime (FPS) 28.45
Standard Deviation 0.3%
Embree - Pathtracer - Crown (FPS) 4.25
Standard Deviation 0.3%
Embree - Pathtracer ISPC - Crown (FPS) 4.71
Standard Deviation 2.2%
Embree - Pathtracer - Asian Dragon (FPS) 4.98
Standard Deviation 1.1%
Embree - Pathtracer - Asian Dragon Obj (FPS) 4.69
Standard Deviation 0.2%

Embree - Pathtracer ISPC - Asian Dragon (FPS)	6.21
Standard Deviation	0.3%
Embree - Pathtracer ISPC - Asian Dragon Obj (FPS)	5.48
Standard Deviation	2.9%
Kvazaar - Bosphorus 4K - Slow (FPS)	1.86
Standard Deviation	0.3%
Kvazaar - Bosphorus 4K - Medium (FPS)	1.91
Standard Deviation	0%
Kvazaar - Bosphorus 1080p - Slow (FPS)	8.14
Standard Deviation	0.4%
Kvazaar - Bosphorus 1080p - Medium (FPS)	8.39
Standard Deviation	0.1%
Kvazaar - Bosphorus 4K - Very Fast (FPS)	5.30
Standard Deviation	0.2%
Kvazaar - Bosphorus 4K - Ultra Fast (FPS)	9.65
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Very Fast (FPS)	21.37
Standard Deviation	0.1%
Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)	38.34
Standard Deviation	0.3%
rav1e - 1 (FPS)	0.31
Standard Deviation	0.3%
rav1e - 5 (FPS)	0.87
Standard Deviation	0.4%
rav1e - 6 (FPS)	1.16
Standard Deviation	0.2%
rav1e - 10 (FPS)	2.64
Standard Deviation	0.7%
SVT-AV1 - Enc Mode 0 - 1080p (FPS)	0.06
Standard Deviation	1.8%
SVT-AV1 - Enc Mode 4 - 1080p (FPS)	1.29
Standard Deviation	1%
SVT-AV1 - Enc Mode 8 - 1080p (FPS)	10.95
Standard Deviation	1.1%
SVT-HEVC - 1.8.b.Y.T.H.V.E (FPS)	19.22
Standard Deviation	1.2%
SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)	76.13
Standard Deviation	13.1%
SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)	80.34
Standard Deviation	0.1%
SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)	63.38
Standard Deviation	0.1%
VP9 libvpx Encoding - Speed 0 (FPS)	5.25
Standard Deviation	0.2%
VP9 libvpx Encoding - Speed 5 (FPS)	19.13
Standard Deviation	0.9%
x264 - H.2.V.E (FPS)	33.67
Standard Deviation	2.9%
x265 - Bosphorus 4K (FPS)	5.91
Standard Deviation	1.5%
x265 - Bosphorus 1080p (FPS)	27.89
Standard Deviation	2.1%
ACES DGEMM - S.F.P.R (GFLOP/s)	1.12

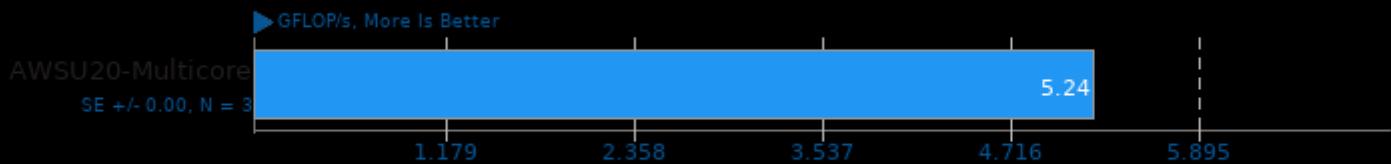
	Standard Deviation	0.1%
Intel Open Image Denoise - Memorial (Images / Sec)	7.33	
	Standard Deviation	0.3%
OpenVKL - vklBenchmark (Items / Sec)	66.03	
	Standard Deviation	0.3%
OpenVKL - vklBenchmarkVdbVolume (Items / Sec)	10700945	
	Standard Deviation	0.4%
OpenVKL - vklBenchmarkStructuredVolume (Items / Sec)	30327319	
	Standard Deviation	1.5%
OpenVKL - vklBenchmarkUnstructuredVolume (Items / Sec)	1573006	
	Standard Deviation	0.2%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	135720	
	Standard Deviation	0.5%
LuxCoreRender - DLSC (M samples/sec)	0.60	
	Standard Deviation	0.8%
LuxCoreRender - R.C.a.P (M samples/sec)	0.65	
	Standard Deviation	0.2%
7-Zip Compression - C.S.T (MIPS)	23114	
Stockfish - Total Time (Nodes/s)	7829672	
	Standard Deviation	2.7%
asmFish - 1.H.M.2.D (Nodes/s)	11694467	
	Standard Deviation	1.8%
Swet - Average (Operations/sec)	606901805	
	Standard Deviation	1%
ebizzy (Records/s)	213184	
	Standard Deviation	8.2%
libavif avifenc - 0 (sec)	201.65	
	Standard Deviation	0.1%
libavif avifenc - 2 (sec)	116.85	
	Standard Deviation	0.4%
libavif avifenc - 8 (sec)	9.63	
	Standard Deviation	0.1%
libavif avifenc - 10 (sec)	8.98	
	Standard Deviation	0.1%
Timed Apache Compilation - Time To Compile (sec)	33.03	
	Standard Deviation	0.4%
Timed FFmpeg Compilation - Time To Compile (sec)	125.54	
	Standard Deviation	0.3%
Timed GCC Compilation - Time To Compile (sec)	1695	
	Standard Deviation	0.3%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	156.37	
	Standard Deviation	0.3%
Timed ImageMagick Compilation - Time To Compile (sec)	62.52	
	Standard Deviation	0.6%
Timed Linux Kernel Compilation - Time To Compile (sec)	193.97	
	Standard Deviation	1.1%
Timed LLVM Compilation - Time To Compile (sec)	1432	
	Standard Deviation	0.4%
Timed MPlayer Compilation - Time To Compile (sec)	87.15	
	Standard Deviation	0.1%
Timed PHP Compilation - Time To Compile (sec)	110.44	
	Standard Deviation	0.2%
Build2 - Time To Compile (sec)	236.40	

	Standard Deviation	1.5%
C-Ray - Total Time - 4.1.R.P.P (sec)	178.78	
	Standard Deviation	0%
Parallel BZIP2 Compression - 2.F.C (sec)	9.02	
	Standard Deviation	4.6%
POV-Ray - Trace Time (sec)	129.42	
	Standard Deviation	0.7%
Primesieve - 1.P.N.G (sec)	54.48	
	Standard Deviation	0.7%
Rust Mandelbrot - T.T.C.S.P.M (sec)	76.67	
	Standard Deviation	0.1%
Rust Prime Benchmark - P.N.T.T.2.0.0 (sec)	26.54	
	Standard Deviation	0%
Smallpt - G.I.R.1.S (sec)	26.37	
	Standard Deviation	0.1%
Tungsten Renderer - Hair (sec)	67.68	
	Standard Deviation	0.2%
Tungsten Renderer - Water Caustic (sec)	44.77	
	Standard Deviation	0.5%
Tungsten Renderer - Non-Exponential (sec)	21.25	
	Standard Deviation	0.9%
Tungsten Renderer - Volumetric Caustic (sec)	24.83	
	Standard Deviation	0%
YafaRay - T.T.F.S.S (sec)	374.48	
	Standard Deviation	0.4%
rays1bench - Large Scene (mrays/s)	20.44	
	Standard Deviation	0%
AOBench - 2048 x 2048 - Total Time (sec)	39.23	
	Standard Deviation	0.6%
FFmpeg - H.2.H.T.N.D (sec)	6.69	
	Standard Deviation	2.9%
m-queens - Time To Solve (sec)	225.79	
	Standard Deviation	0%
N-Queens - Elapsed Time (sec)	35.20	
	Standard Deviation	0.1%
Radiance Benchmark - Serial (sec)	818.63	
Radiance Benchmark - SMP Parallel (sec)	251.61	
Tachyon - Total Time (sec)	224.74	
	Standard Deviation	0.3%
Cpuminer-Opt - m7m (kH/s - Hash Speed)	108.15	
	Standard Deviation	0.6%
Cpuminer-Opt - deep (kH/s - Hash Speed)	3658	
	Standard Deviation	0%
Cpuminer-Opt - lbry (kH/s - Hash Speed)	12280	
	Standard Deviation	1.7%
Cpuminer-Opt - skein (kH/s - Hash Speed)	14387	
	Standard Deviation	0.3%
Cpuminer-Opt - myr-gr (kH/s - Hash Speed)	5121	
	Standard Deviation	0.2%
Cpuminer-Opt - sha256t (kH/s - Hash Speed)	29040	
	Standard Deviation	0.3%
ASKAP - tConvolve MT - Gridding (Million Grid Points/sec)	1675	
	Standard Deviation	0.3%
ASKAP - tConvolve MT - Degridding (Million Grid Points/sec)	1359	

	Standard Deviation	1%
ASKAP - tConvolve MPI - Gridding (Million Grid Points/sec)	1694	
	Standard Deviation	1.4%
ASKAP - tConvolve MPI - Degridding (Million Grid Points/sec)	1367	
	Standard Deviation	0.2%
ASKAP - tConvolve OpenMP - Gridding (Million Grid Points/sec)	1522	
	Standard Deviation	1.7%
ASKAP - tConvolve OpenMP - Degridding (Million Grid Points/sec)	1445	
	Standard Deviation	1.4%
Intel MPI Benchmarks - IMB-P2P PingPong (Msg/sec)	2873017	
	Standard Deviation	0.6%
Intel MPI Benchmarks - IMB-MPI1 Exchange (Mbytes/sec)	9128	
	Standard Deviation	0.8%
Intel MPI Benchmarks - IMB-MPI1 Exchange (usec)	81.39	
	Standard Deviation	2.2%
Intel MPI Benchmarks - IMB-MPI1 PingPong (Mbytes/sec)	5640	
	Standard Deviation	1.3%
Intel MPI Benchmarks - IMB-MPI1 Sendrecv (Mbytes/sec)	7939	
	Standard Deviation	1%
Intel MPI Benchmarks - IMB-MPI1 Sendrecv (usec)	54.65	
	Standard Deviation	3.4%
GROMACS - Water Benchmark (Ns/Day)	0.57	
	Standard Deviation	1%
Sysbench - Memory (Events/sec)	10015399	
	Standard Deviation	6.6%
Sysbench - CPU (Events/sec)	7885	
	Standard Deviation	0%
OpenVINO - F.D.O.F - CPU (FPS)	1.47	
	Standard Deviation	0.4%
OpenVINO - F.D.O.F - CPU (ms)	2720	
	Standard Deviation	0.3%
OpenVINO - F.D.O.F - CPU (FPS)	1.46	
	Standard Deviation	0.7%
OpenVINO - F.D.O.F - CPU (ms)	2727	
	Standard Deviation	0.5%
OpenVINO - P.D.O.F - CPU (FPS)	0.88	
	Standard Deviation	0.7%
OpenVINO - P.D.O.F - CPU (ms)	4549	
	Standard Deviation	0.3%
OpenVINO - P.D.O.F - CPU (FPS)	0.89	
	Standard Deviation	1.1%
OpenVINO - P.D.O.F - CPU (ms)	4459	
	Standard Deviation	0.9%
OpenVINO - A.G.R.R.O.F - CPU (FPS)	4129	
	Standard Deviation	0.1%
OpenVINO - A.G.R.R.O.F - CPU (ms)	0.95	
	Standard Deviation	0%
OpenVINO - A.G.R.R.O.F - CPU (FPS)	4026	
	Standard Deviation	0.2%
OpenVINO - A.G.R.R.O.F - CPU (ms)	0.98	
	Standard Deviation	0.6%
Apache Cassandra - Writes (Op/s)	18930	
	Standard Deviation	1%

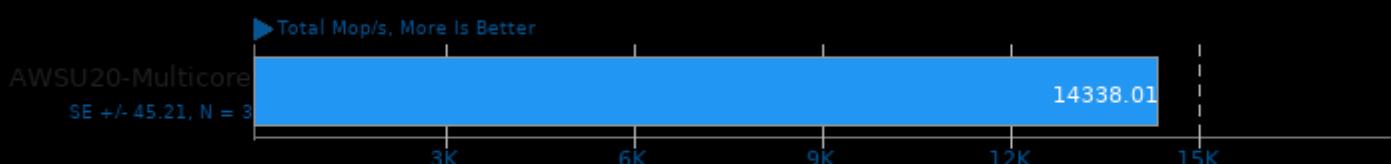
Blender - BMW27 - CUDA (sec)	525.65
Standard Deviation	1.5%
Blender - BMW27 - OpenCL (sec)	512.38
Standard Deviation	3%
Blender - BMW27 - CPU-Only (sec)	430.87
Standard Deviation	0.4%
Blender - Classroom - CUDA (sec)	1384
Standard Deviation	0.3%
Blender - Fishy Cat - CUDA (sec)	1111
Standard Deviation	2.7%
Blender - Barbershop - CUDA (sec)	1825
Standard Deviation	0.4%
Blender - Classroom - OpenCL (sec)	1379
Standard Deviation	0.4%
Blender - Fishy Cat - OpenCL (sec)	1094
Standard Deviation	2.5%
Blender - Barbershop - OpenCL (sec)	1833
Standard Deviation	0.2%
Blender - BMW27 - NVIDIA OptiX (sec)	518.47
Standard Deviation	2%
Blender - Classroom - CPU-Only (sec)	1348
Standard Deviation	0.1%
Blender - Fishy Cat - CPU-Only (sec)	591.89
Standard Deviation	0%
Blender - Barbershop - CPU-Only (sec)	1784
Standard Deviation	0.2%
Blender - Classroom - NVIDIA OptiX (sec)	1414
Standard Deviation	1.9%
Blender - Fishy Cat - NVIDIA OptiX (sec)	1205
Standard Deviation	2.7%
Blender - Barbershop - NVIDIA OptiX (sec)	2018
Standard Deviation	0.9%
Blender - Pabellon Barcelona - CUDA (sec)	2231
Standard Deviation	0.5%
Blender - Pabellon Barcelona - OpenCL (sec)	2243
Standard Deviation	0.7%
Blender - Pabellon Barcelona - CPU-Only (sec)	1606
Standard Deviation	1%
Blender - Pabellon Barcelona - NVIDIA OptiX (sec)	2291
Standard Deviation	0.9%
Xsbench (Lookups/s)	1065443
Standard Deviation	1.9%
NeatBench (FPS)	9.02
Standard Deviation	0.8%
Appleseed - Emily (sec)	974.74
Appleseed - Disney Material (sec)	556.82
Appleseed - Material Tester (sec)	539.90

High Performance Conjugate Gradient 3.1



NAS Parallel Benchmarks 3.4

Test / Class: BT.C



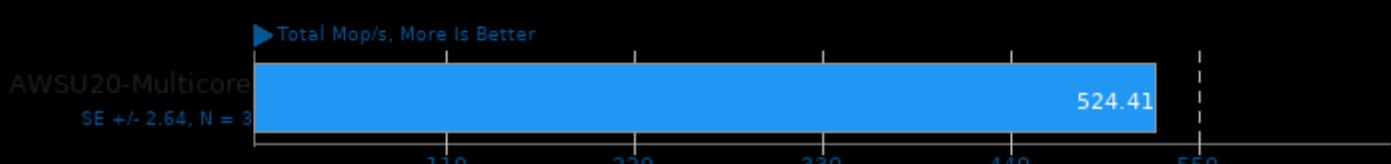
NAS Parallel Benchmarks 3.4

Test / Class: CG.C



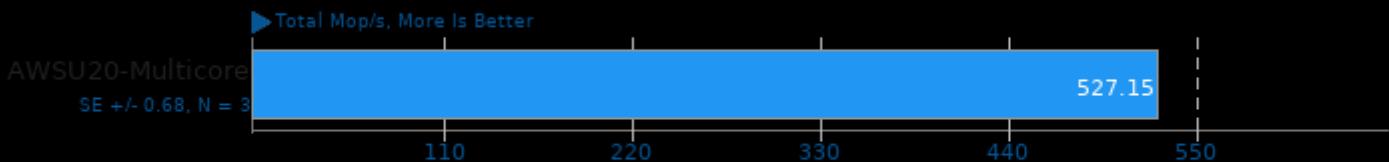
NAS Parallel Benchmarks 3.4

Test / Class: EP.C



NAS Parallel Benchmarks 3.4

Test / Class: EP.D

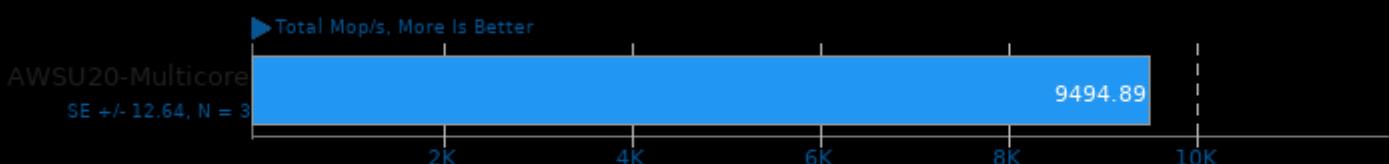


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: FT.C

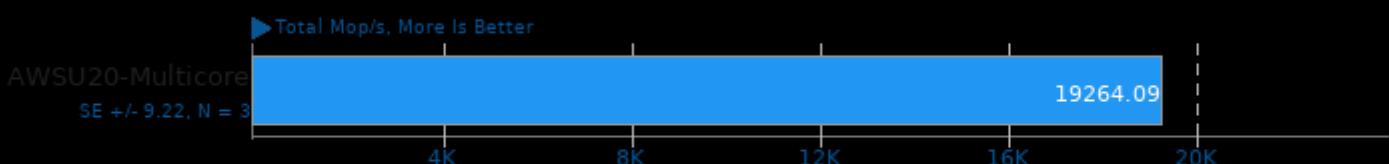


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: LU.C

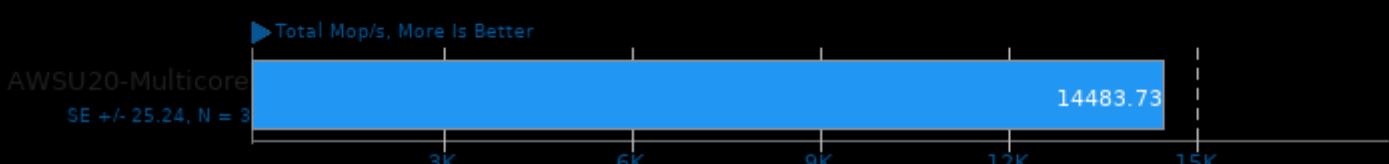


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: MG.C

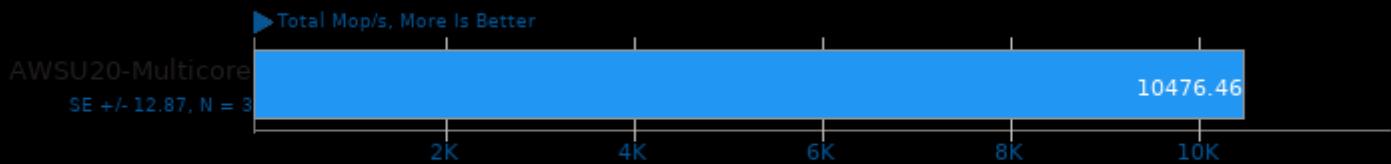


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: SP.B

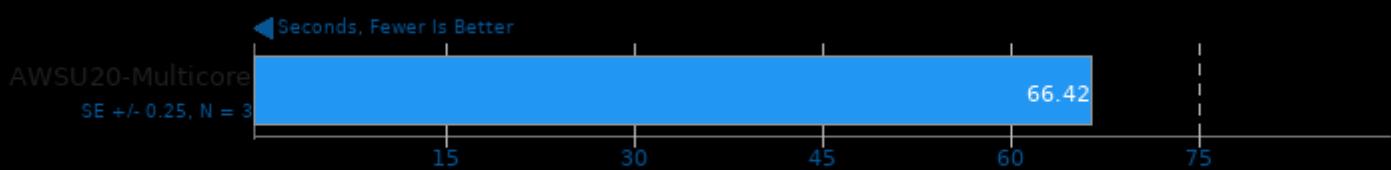


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

Parboil 2.5

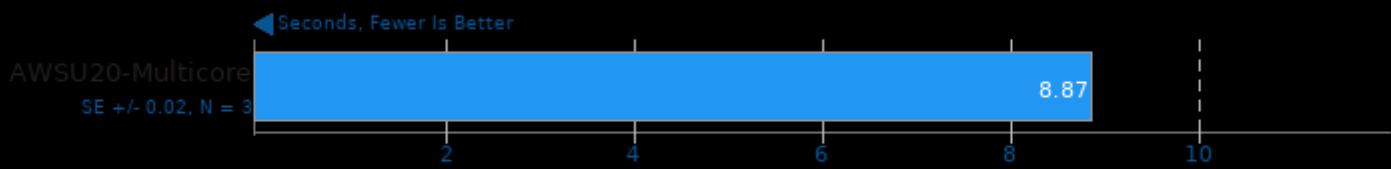
Test: OpenMP LBM



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

Parboil 2.5

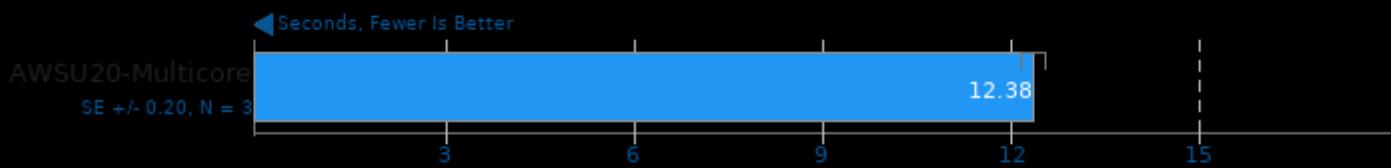
Test: OpenMP CUTCP



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

Parboil 2.5

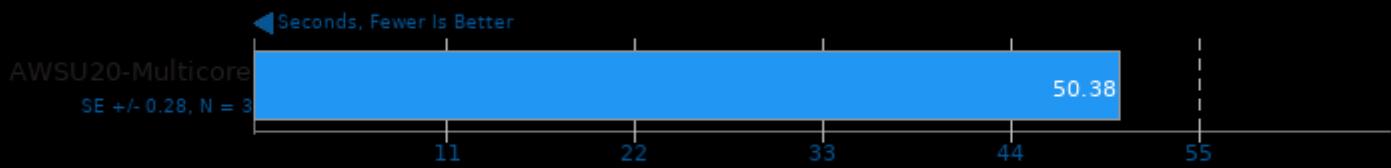
Test: OpenMP Stencil



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

Parboil 2.5

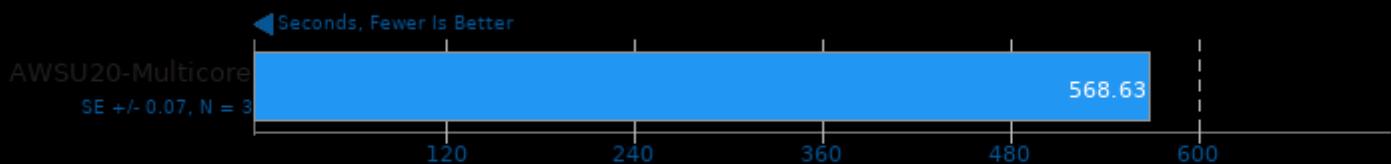
Test: OpenMP MRI Gridding



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

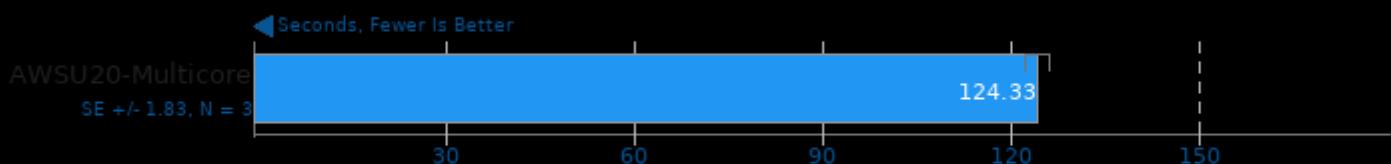
Rodinia 3.1

Test: OpenMP LavaMD



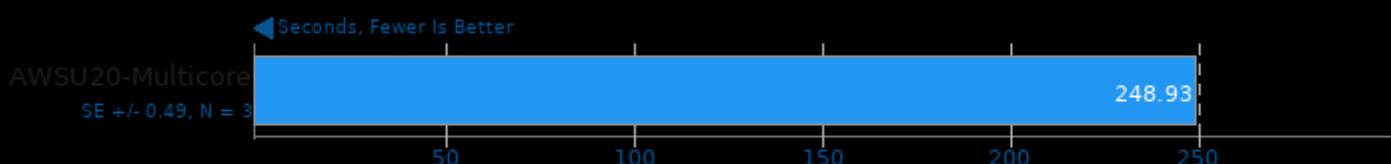
Rodinia 3.1

Test: OpenMP HotSpot3D



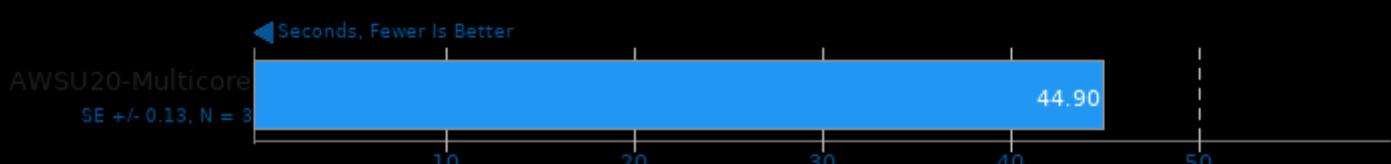
Rodinia 3.1

Test: OpenMP Leukocyte



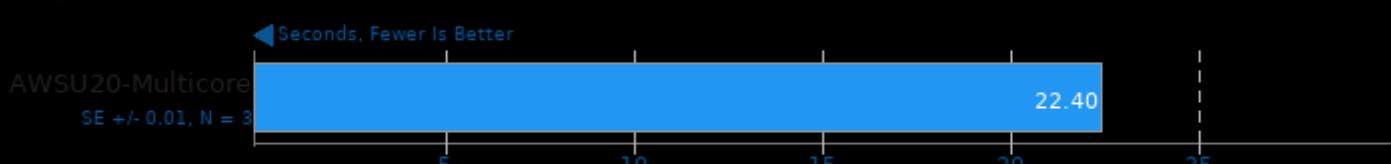
Rodinia 3.1

Test: OpenMP CFD Solver



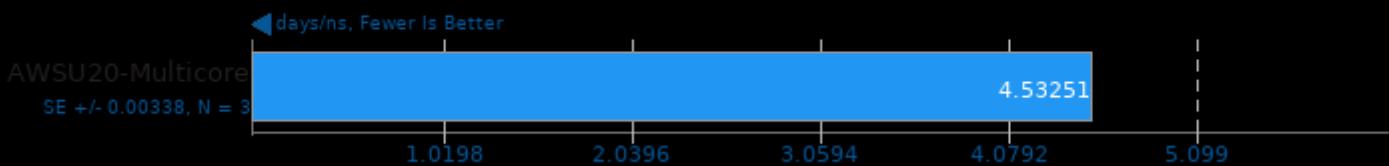
Rodinia 3.1

Test: OpenMP Streamcluster



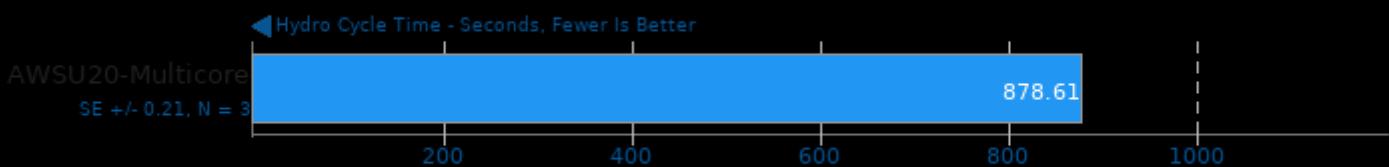
NAMD 2.14

ATPase Simulation - 327,506 Atoms



Pennant 1.0.1

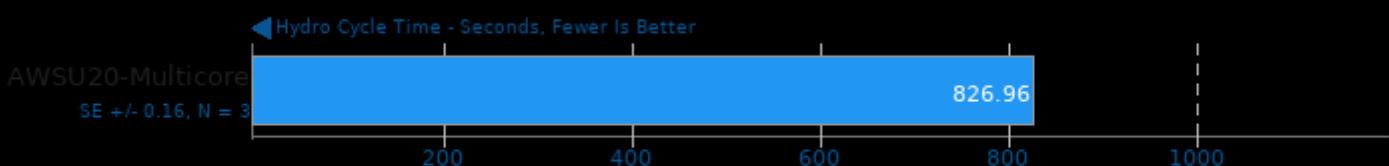
Test: sedovbig



1. (CXX) g++ options: -fopenmp -pthread -lmpi_cxx -lmpi

Pennant 1.0.1

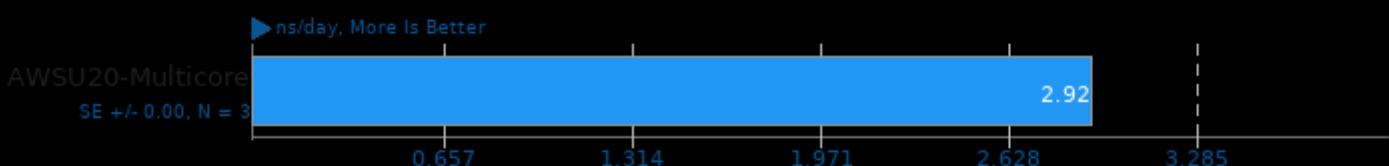
Test: leblancbig



1. (CXX) g++ options: -fopenmp -pthread -lmpi_cxx -lmpi

LAMMPS Molecular Dynamics Simulator 29Oct2020

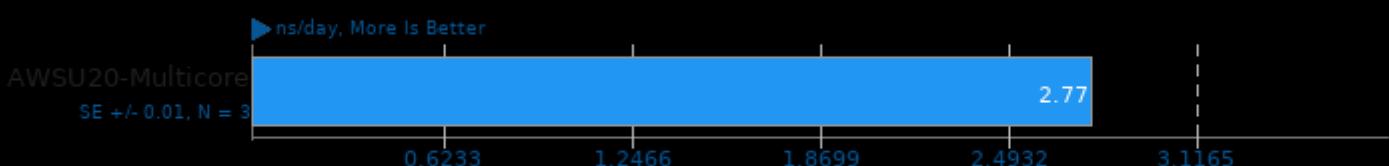
Model: 20k Atoms



1. (CXX) g++ options: -O3 -pthread -lm

LAMMPS Molecular Dynamics Simulator 29Oct2020

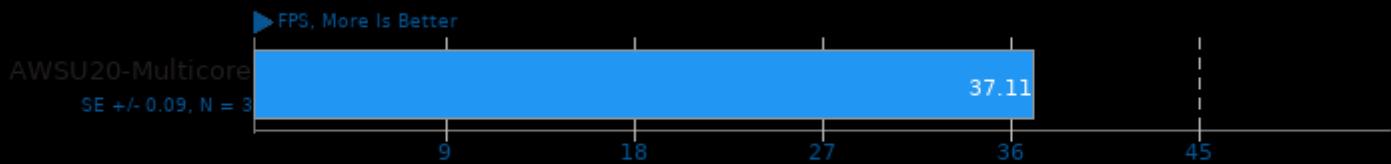
Model: Rhodopsin Protein



1. (CXX) g++ options: -O3 -pthread -lm

libgavl 2019-10-05

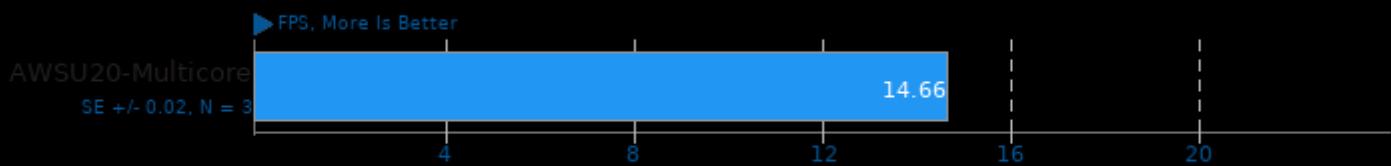
Video Input: Chimera 1080p



1. (CXX) g++ options: -O3 -lpthread

libgavl 2019-10-05

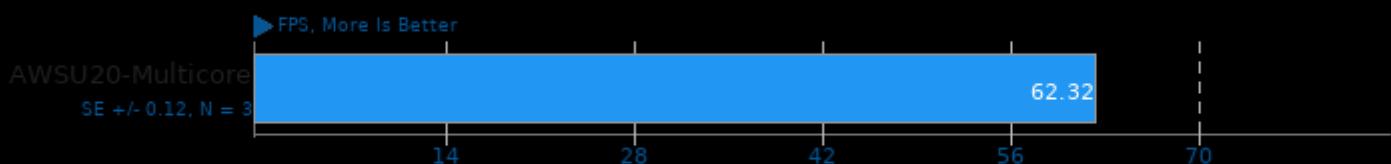
Video Input: Summer Nature 4K



1. (CXX) g++ options: -O3 -lpthread

libgavl 2019-10-05

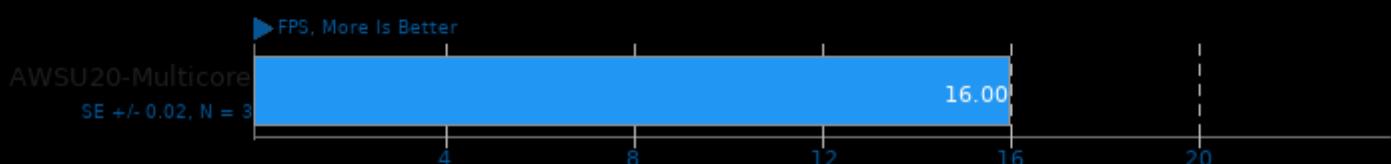
Video Input: Summer Nature 1080p



1. (CXX) g++ options: -O3 -lpthread

libgavl 2019-10-05

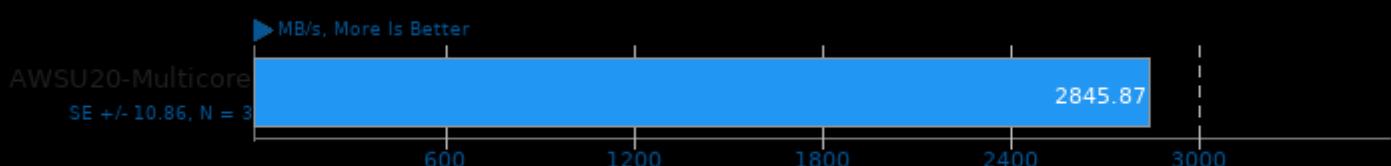
Video Input: Chimera 1080p 10-bit



1. (CXX) g++ options: -O3 -lpthread

Zstd Compression 1.4.5

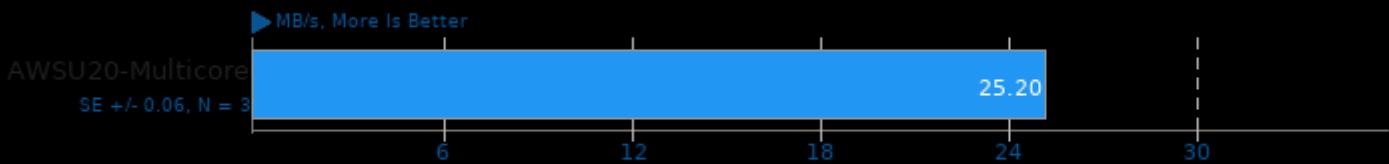
Compression Level: 3



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

Zstd Compression 1.4.5

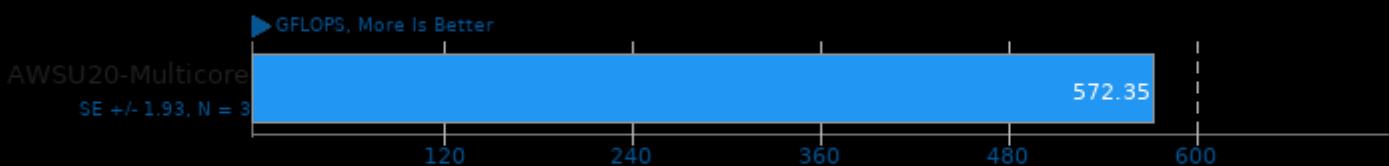
Compression Level: 19



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

ArrayFire 3.7

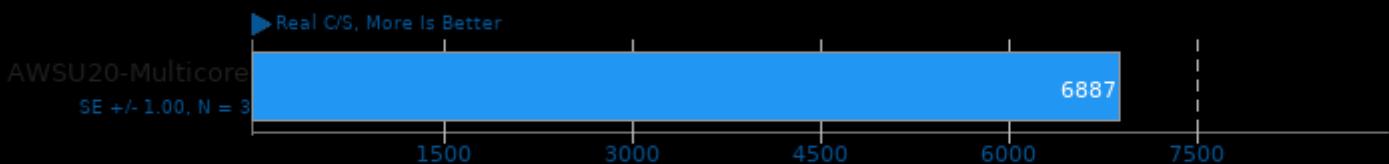
Test: BLAS CPU



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

John The Ripper 1.9.0-jumbo-1

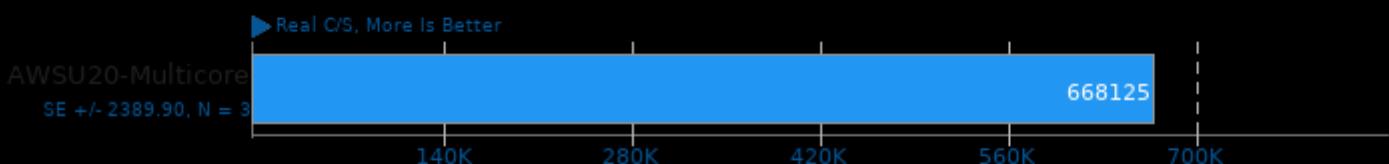
Test: Blowfish



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

John The Ripper 1.9.0-jumbo-1

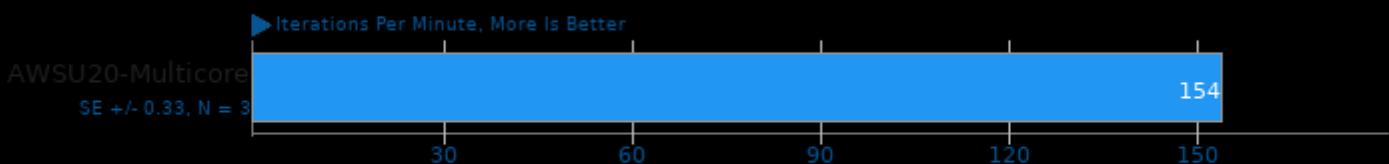
Test: MD5



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

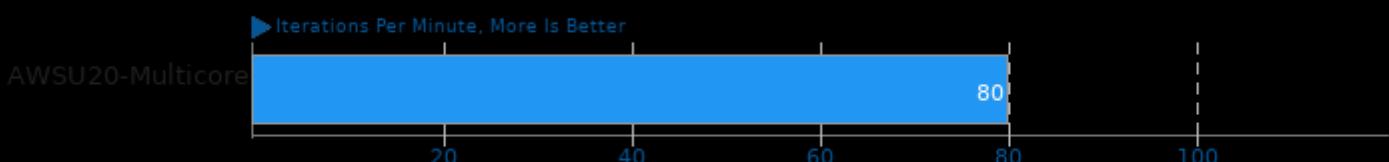
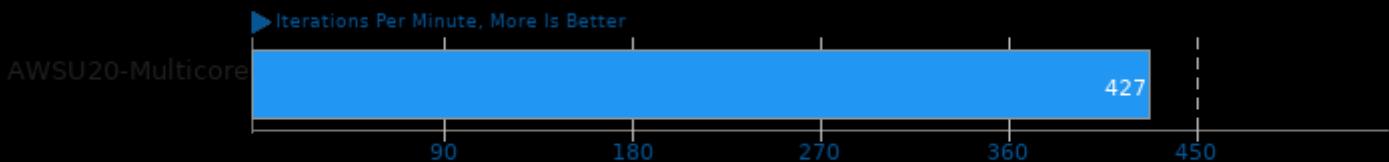
GraphicsMagick 1.3.33

Operation: Swirl



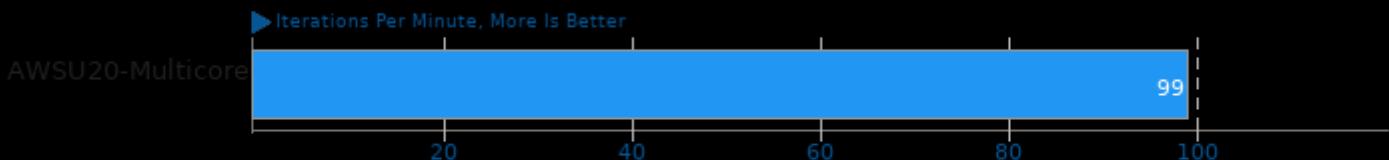
1. (CC) gcc options: -fopenmp -O2 -pthread -ljpeg -lwebp -lwebrtc -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -lizma -lbz2 -lxml2 -lz -lm -lpthread

GraphicsMagick 1.3.33



GraphicsMagick 1.3.33

Operation: Noise-Gaussian



1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -lfreetype -jpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lxml2 -lz -lm -pthread

GraphicsMagick 1.3.33

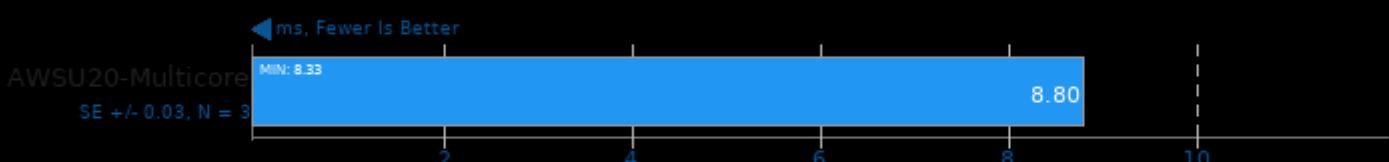
Operation: HWB Color Space



1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -lfreetype -jpeg -lXext -lSM -lICE -lX11 -lzma -lbz2 -lxml2 -lz -lm -pthread

oneDNN 1.5

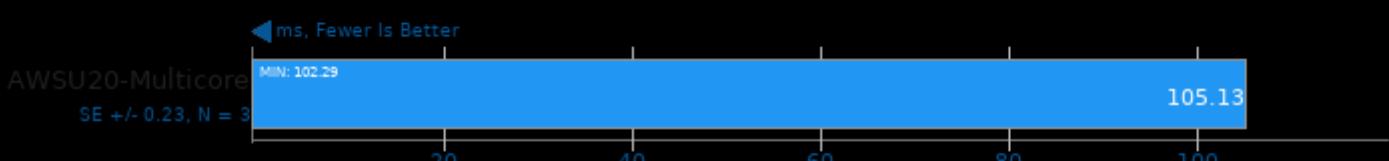
Harness: IP Batch 1D - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

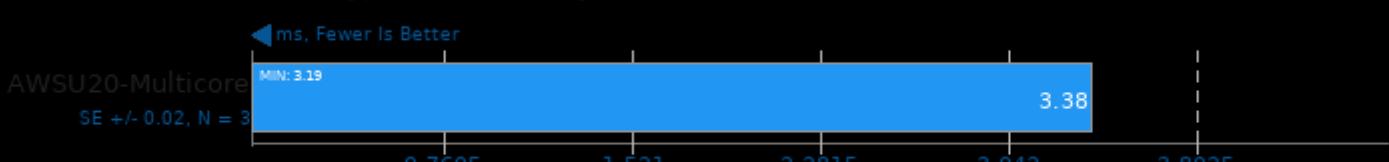
Harness: IP Batch All - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

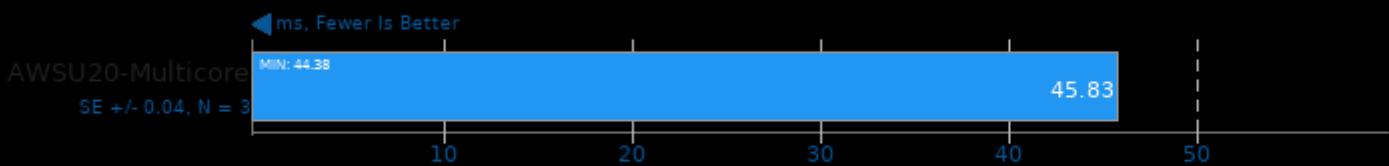
Harness: IP Batch 1D - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 1.5

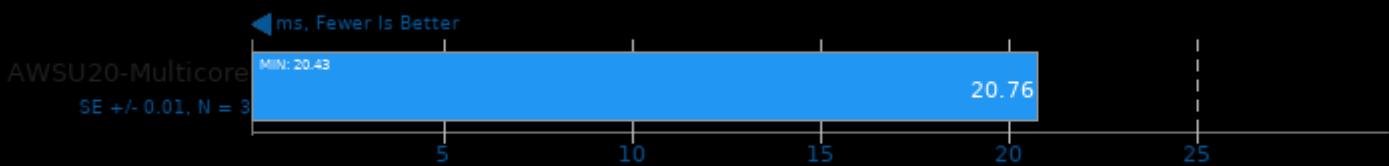
Harness: IP Batch All - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 1.5

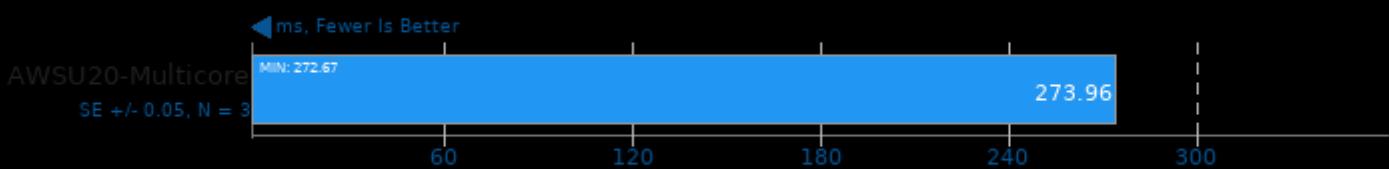
Harness: IP Batch 1D - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 1.5

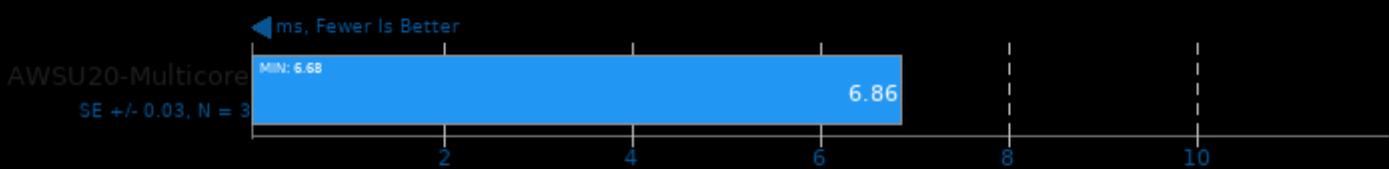
Harness: IP Batch All - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 1.5

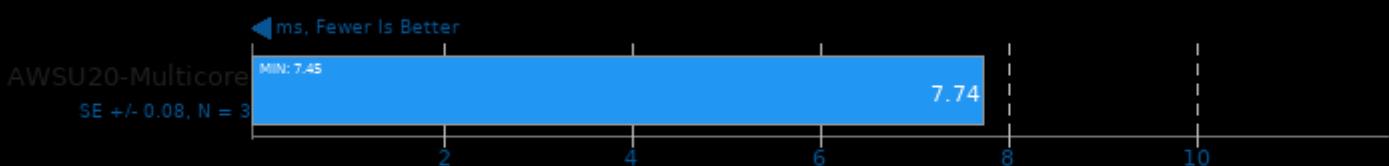
Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

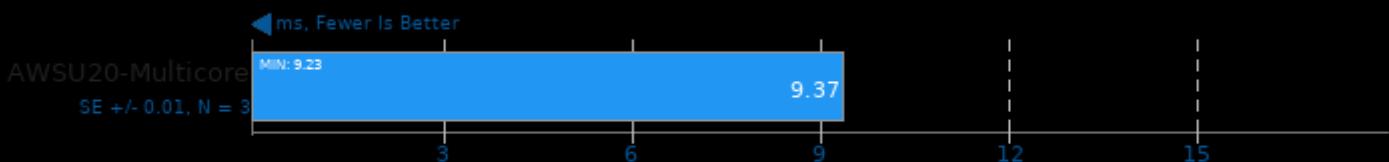
Harness: Deconvolution Batch deconv_1d - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

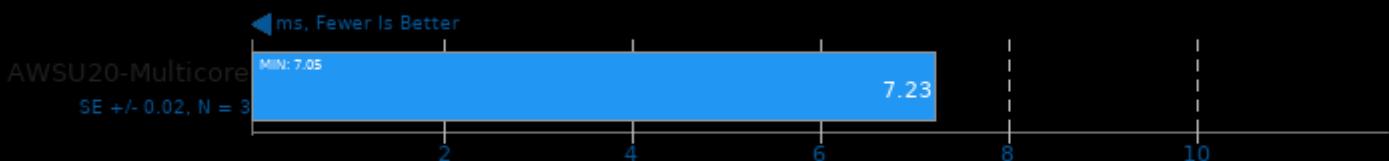
Harness: Deconvolution Batch deconv_3d - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

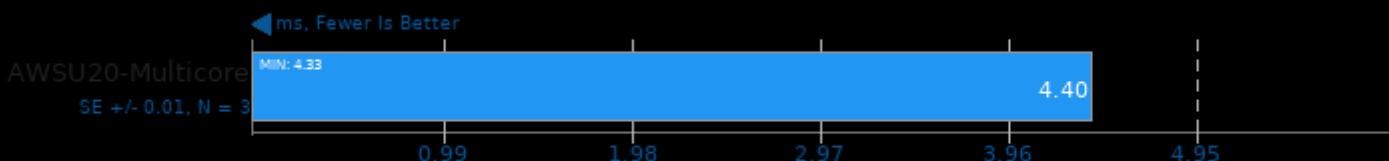
Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 1.5

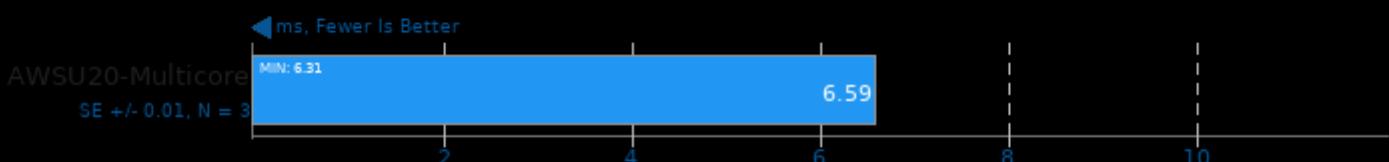
Harness: Deconvolution Batch deconv_1d - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 1.5

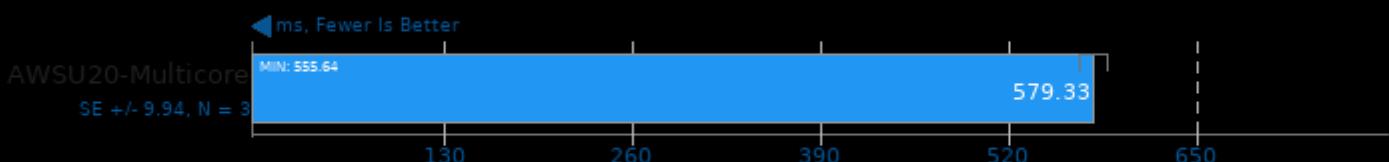
Harness: Deconvolution Batch deconv_3d - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 1.5

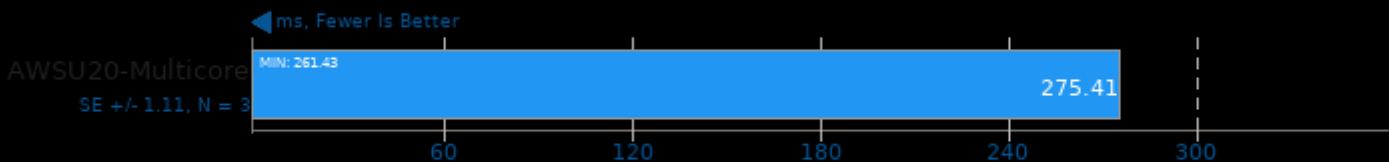
Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

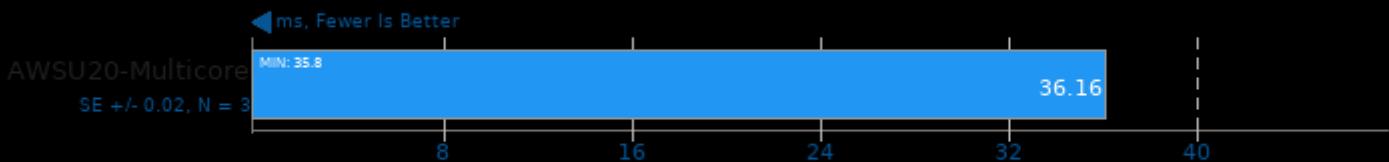
Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

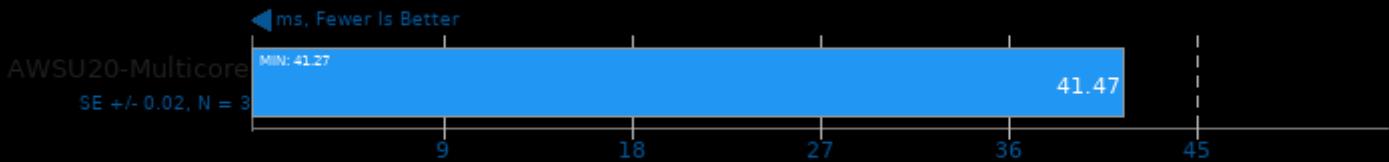
Harness: Convolution Batch Shapes Auto - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 1.5

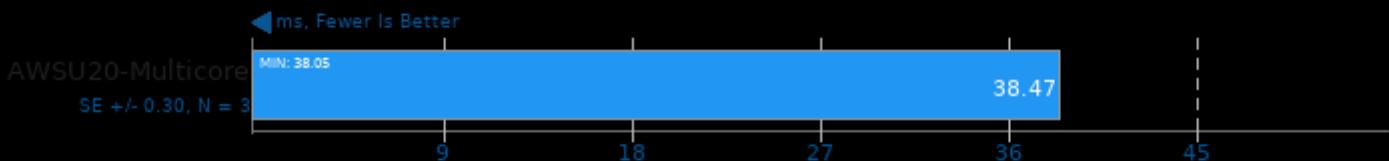
Harness: Deconvolution Batch deconv_1d - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 1.5

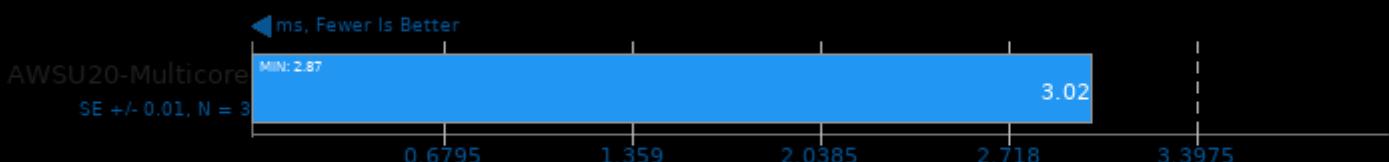
Harness: Deconvolution Batch deconv_3d - Data Type: bf16bf16bf16 - Engine: CPU



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

oneDNN 1.5

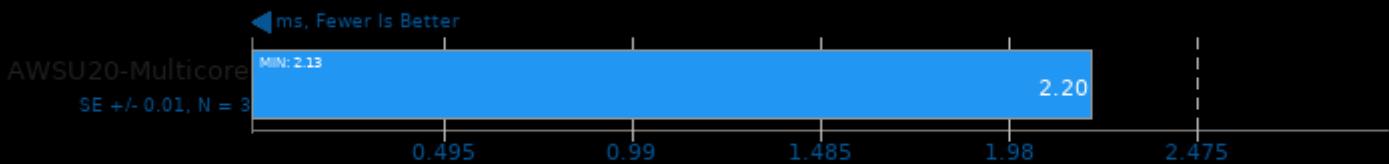
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU



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

oneDNN 1.5

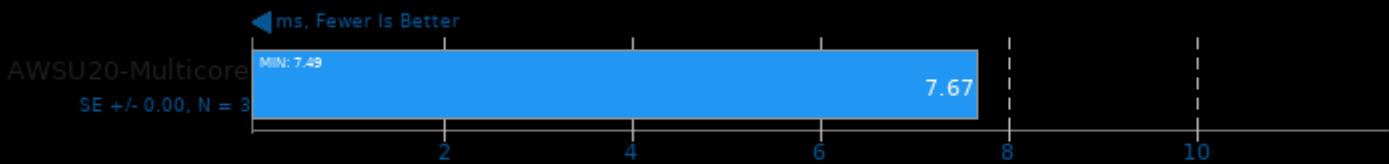
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: u8s8f32 - Engine: CPU



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

oneDNN 1.5

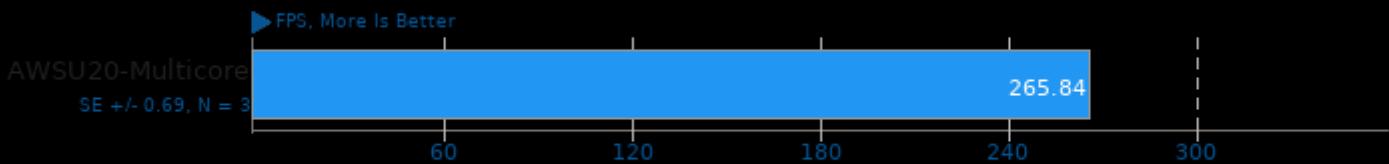
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: bf16bf16bf16 - Engine: CPU



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

dav1d 0.7.0

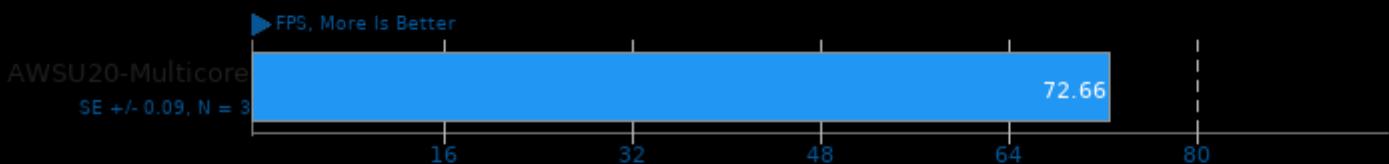
Video Input: Chimera 1080p



1. (CC) gcc options: -pthread

dav1d 0.7.0

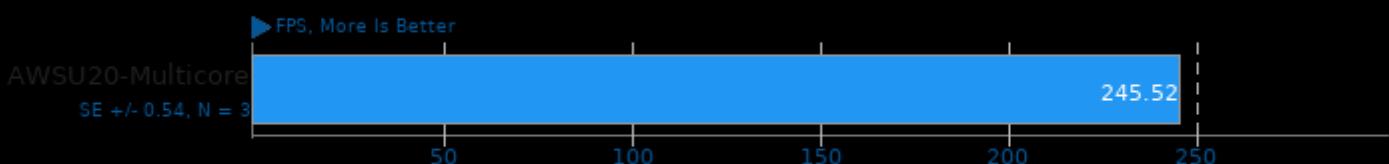
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread

dav1d 0.7.0

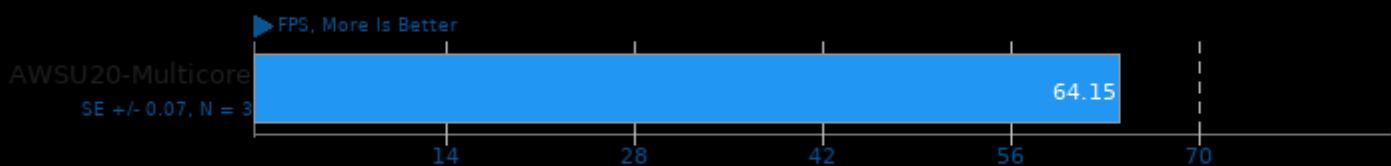
Video Input: Summer Nature 1080p



1. (CC) gcc options: -pthread

dav1d 0.7.0

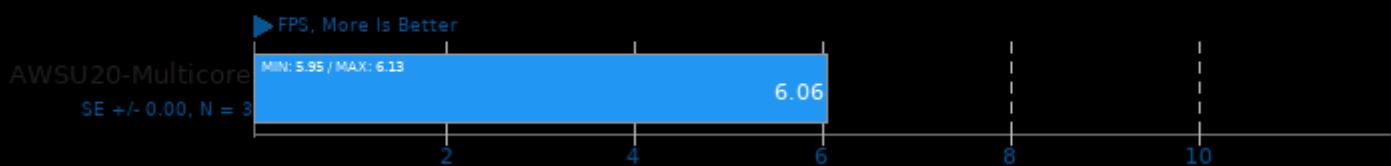
Video Input: Chimera 1080p 10-bit



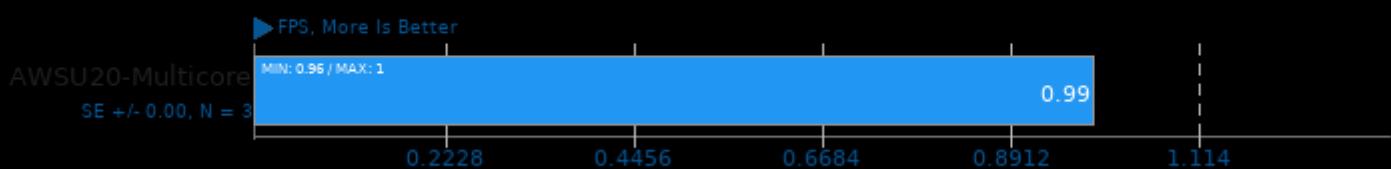
1. (CC) gcc options: -pthread

OSPray 1.8.5

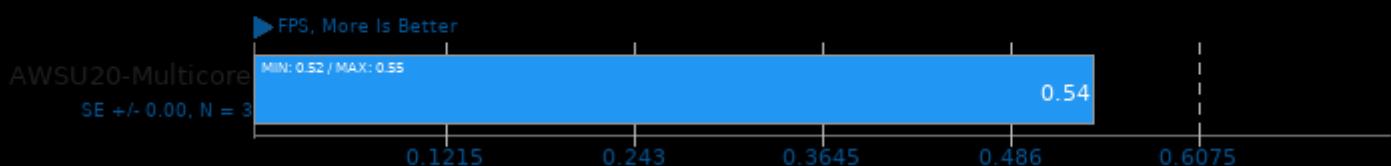
Demo: San Miguel - Renderer: SciVis

**OSPray 1.8.5**

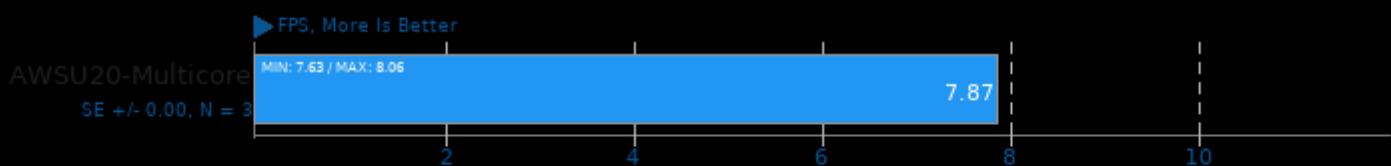
Demo: XFrog Forest - Renderer: SciVis

**OSPray 1.8.5**

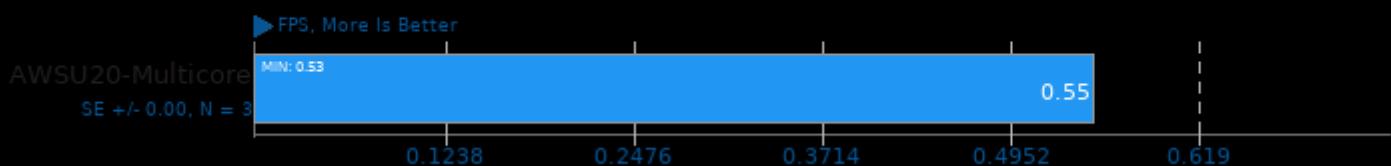
Demo: San Miguel - Renderer: Path Tracer

**OSPray 1.8.5**

Demo: NASA Streamlines - Renderer: SciVis

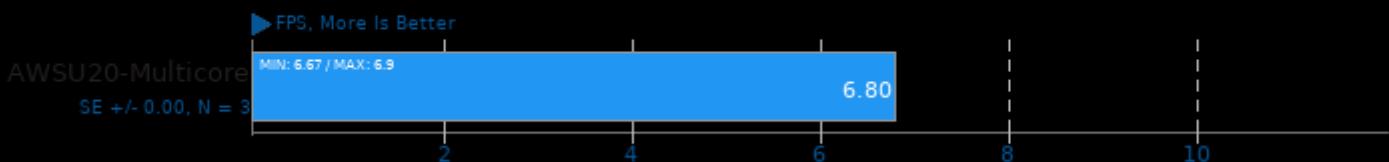
**OSPray 1.8.5**

Demo: XFrog Forest - Renderer: Path Tracer



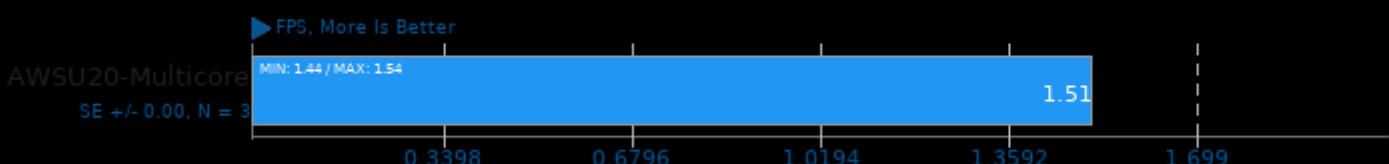
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: SciVis



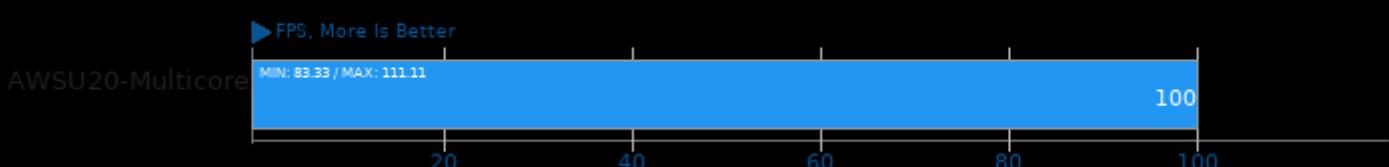
OSPray 1.8.5

Demo: NASA Streamlines - Renderer: Path Tracer



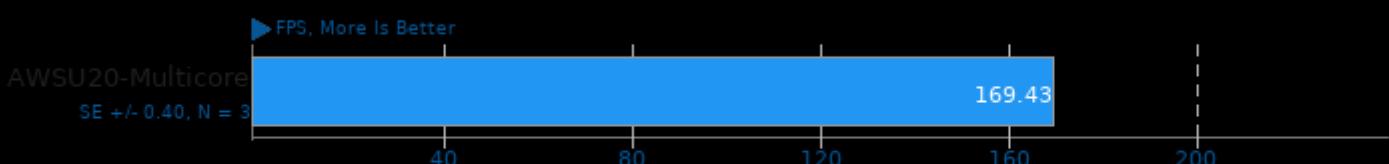
OSPray 1.8.5

Demo: Magnetic Reconnection - Renderer: Path Tracer



TTSIOD 3D Renderer 2.3b

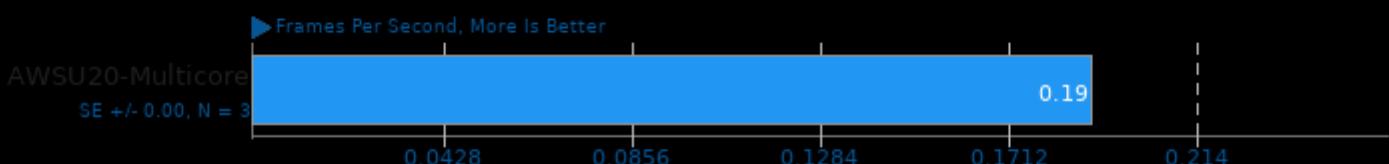
Phong Rendering With Soft-Shadow Mapping



1. (CXX) g++ options: -O3 -fomit-frame-pointer -ffast-math -mtune=native -fno-msse -mrecip -mfpmath=sse -msse2 -mssse3 -fwhole-pr

AOM AV1 2.0

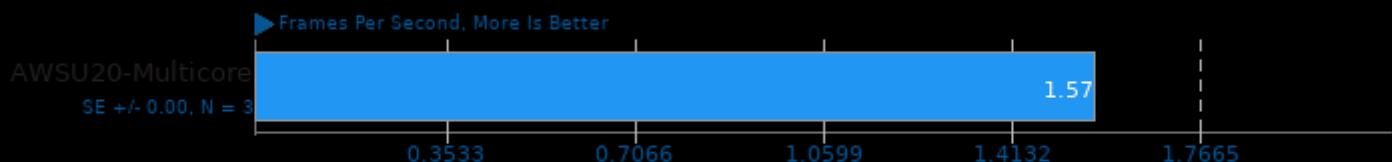
Encoder Mode: Speed 0 Two-Pass



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -fno-plt -fthread

AOM AV1 2.0

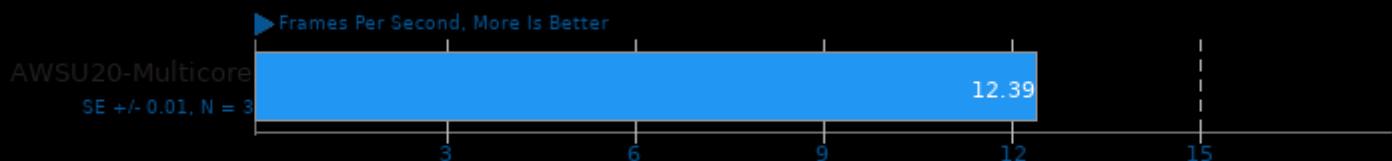
Encoder Mode: Speed 4 Two-Pass



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

AOM AV1 2.0

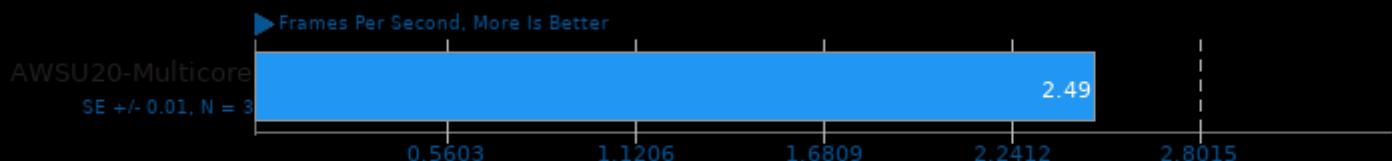
Encoder Mode: Speed 6 Realtime



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

AOM AV1 2.0

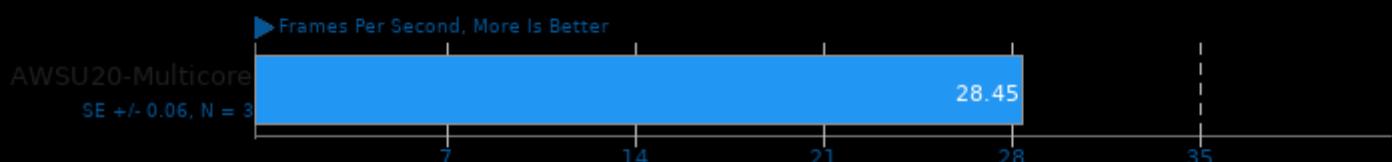
Encoder Mode: Speed 6 Two-Pass



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

AOM AV1 2.0

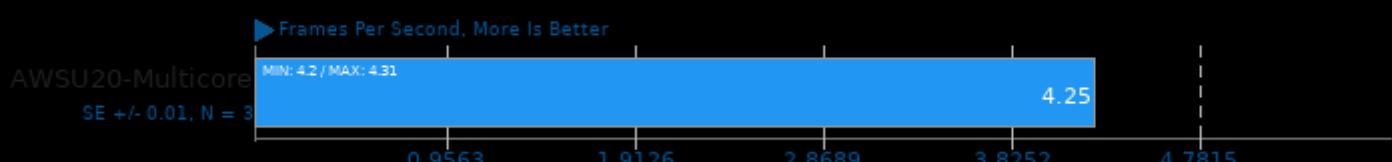
Encoder Mode: Speed 8 Realtime



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

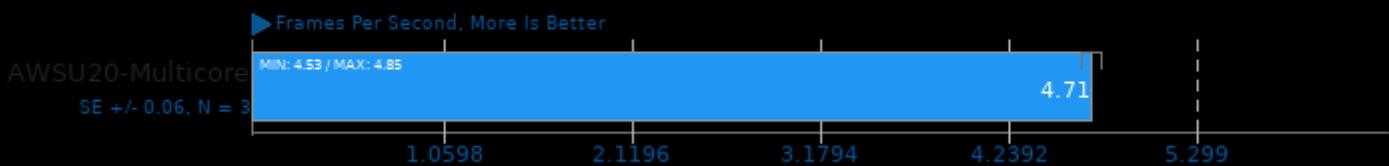
Embree 3.9.0

Binary: Pathtracer - Model: Crown



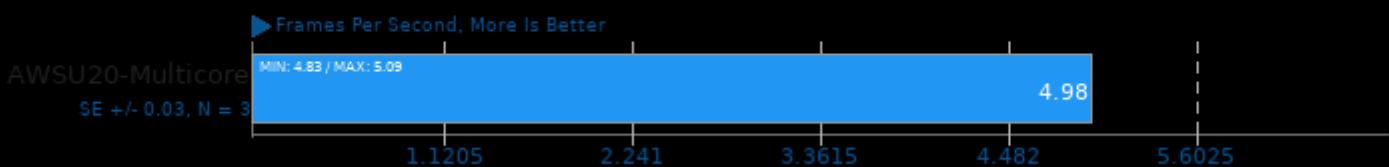
Embree 3.9.0

Binary: Pathtracer ISPC - Model: Crown



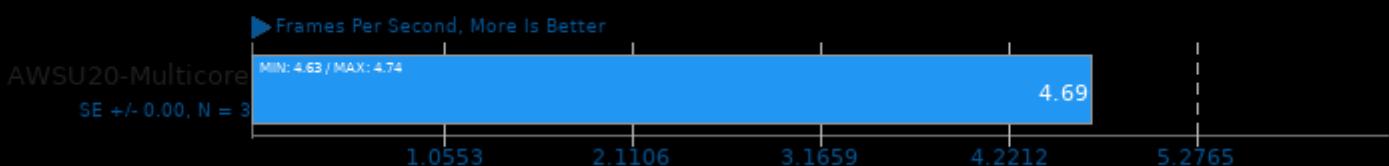
Embree 3.9.0

Binary: Pathtracer - Model: Asian Dragon



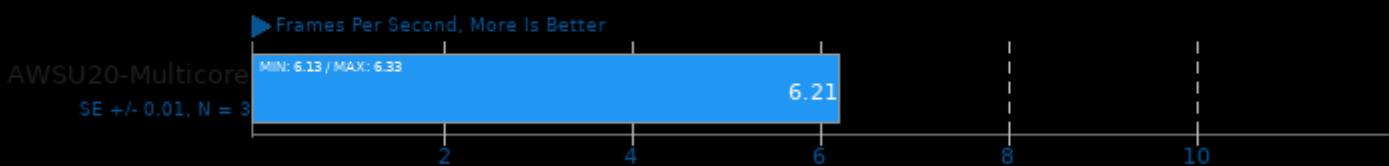
Embree 3.9.0

Binary: Pathtracer - Model: Asian Dragon Obj



Embree 3.9.0

Binary: Pathtracer ISPC - Model: Asian Dragon



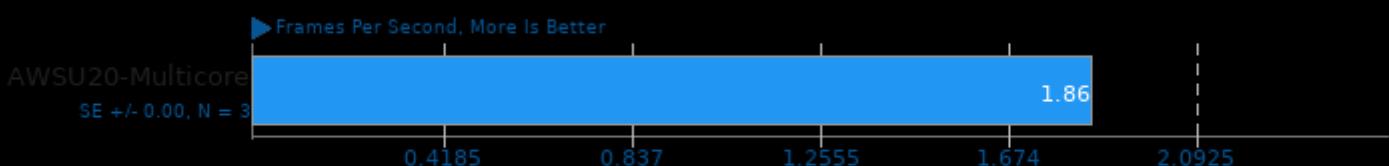
Embree 3.9.0

Binary: Pathtracer ISPC - Model: Asian Dragon Obj



Kvazaar 2.0

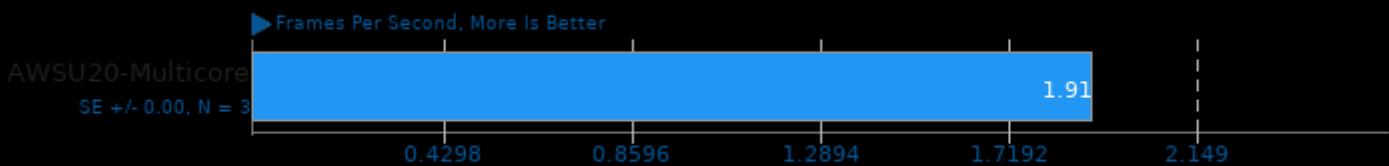
Video Input: Bosphorus 4K - Video Preset: Slow



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

Kvazaar 2.0

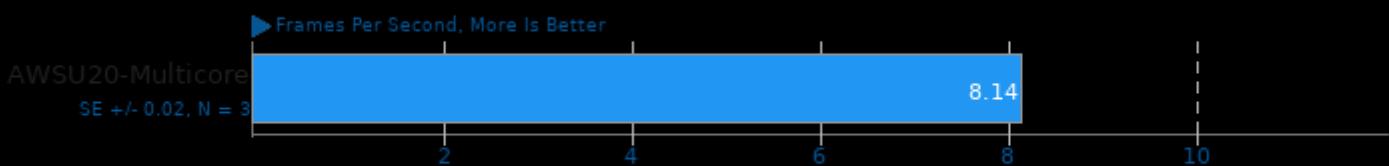
Video Input: Bosphorus 4K - Video Preset: Medium



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

Kvazaar 2.0

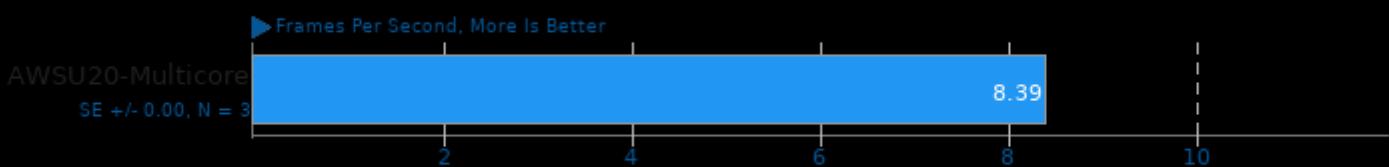
Video Input: Bosphorus 1080p - Video Preset: Slow



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

Kvazaar 2.0

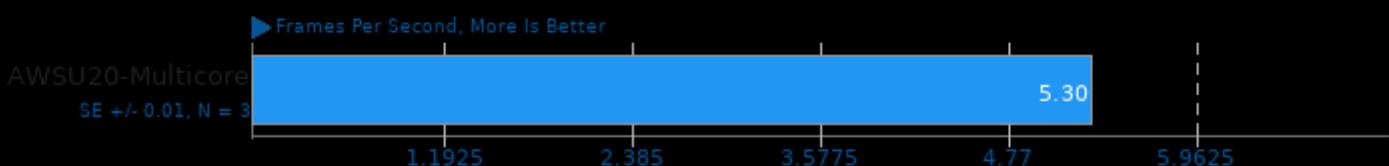
Video Input: Bosphorus 1080p - Video Preset: Medium



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

Kvazaar 2.0

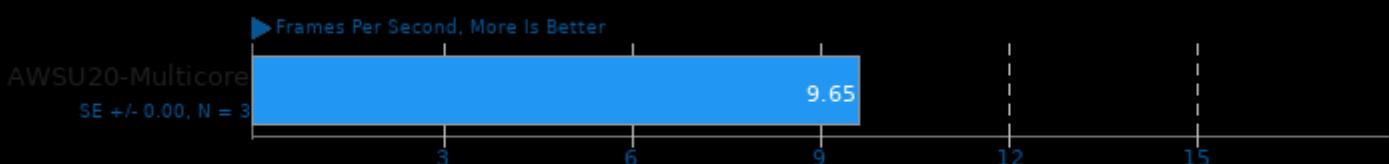
Video Input: Bosphorus 4K - Video Preset: Very Fast



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

Kvazaar 2.0

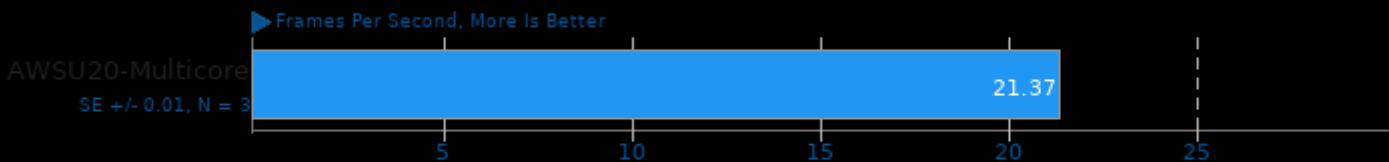
Video Input: Bosphorus 4K - Video Preset: Ultra Fast



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

Kvazaar 2.0

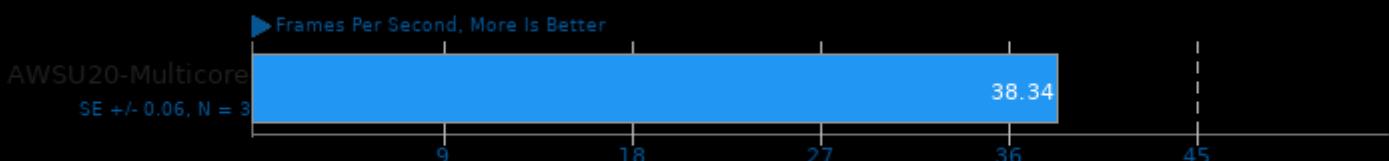
Video Input: Bosphorus 1080p - Video Preset: Very Fast



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

Kvazaar 2.0

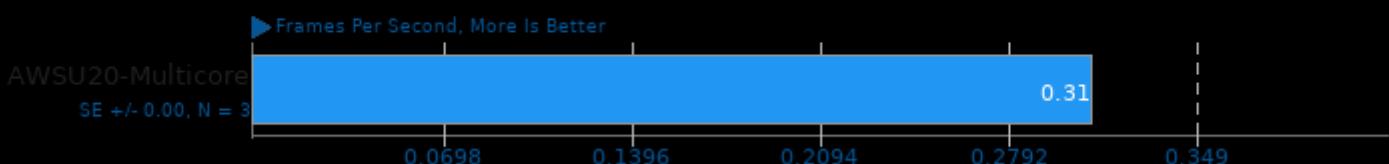
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



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

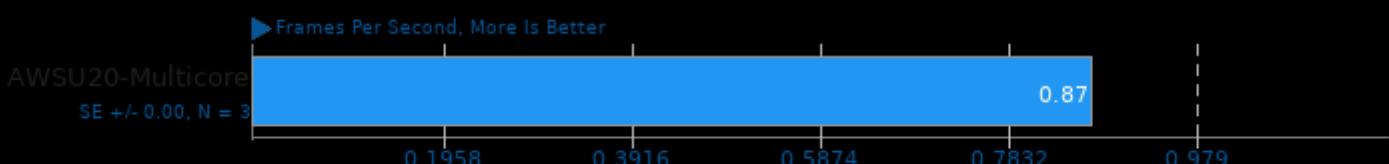
rav1e 0.4 Alpha

Speed: 1



rav1e 0.4 Alpha

Speed: 5



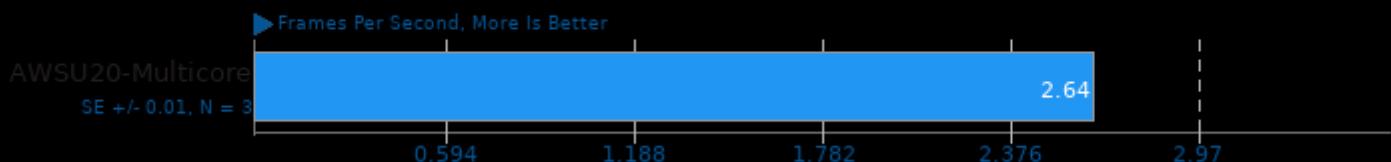
rav1e 0.4 Alpha

Speed: 6



rav1e 0.4 Alpha

Speed: 10

**SVT-AV1 0.8**

Encoder Mode: Enc Mode 0 - Input: 1080p



1. (CXX) g++ options: -O3 -fcommon -fPIE -fPIC -pie

SVT-AV1 0.8

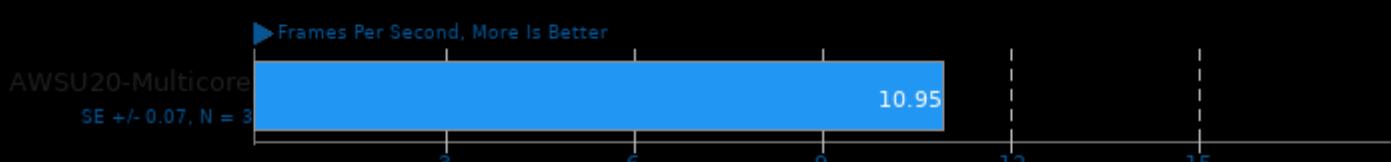
Encoder Mode: Enc Mode 4 - Input: 1080p



1. (CXX) g++ options: -O3 -fcommon -fPIE -fPIC -pie

SVT-AV1 0.8

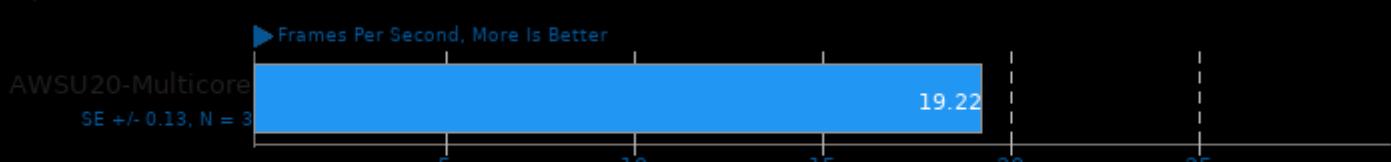
Encoder Mode: Enc Mode 8 - Input: 1080p



1. (CXX) g++ options: -O3 -fcommon -fPIE -fPIC -pie

SVT-HEVC 1.4.1

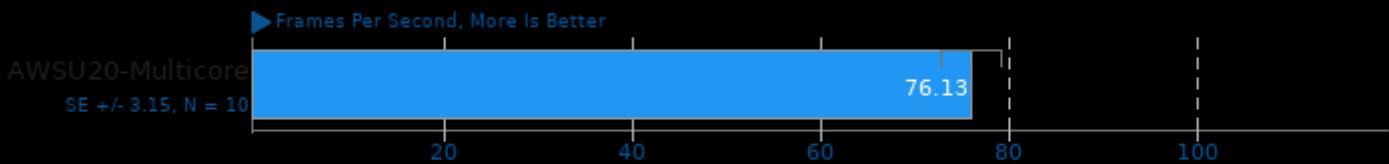
1080p 8-bit YUV To HEVC Video Encode



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

SVT-VP9 0.1

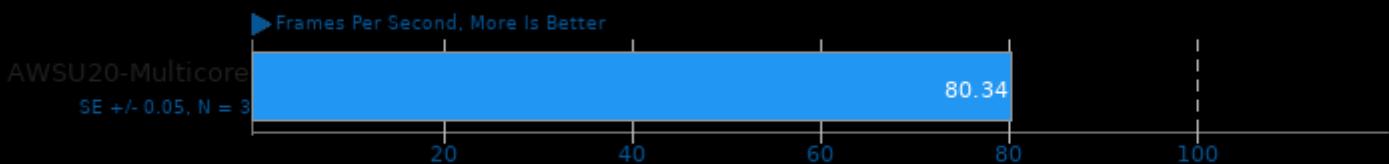
Tuning: VMAF Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

SVT-VP9 0.1

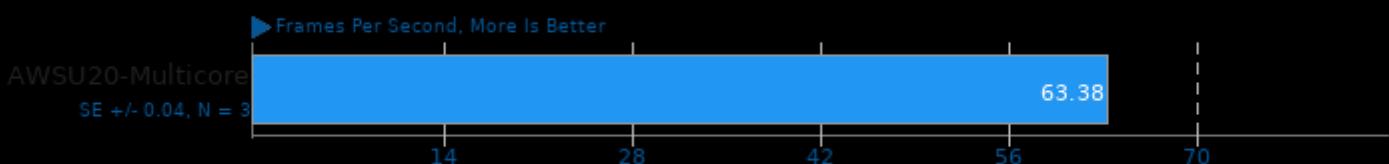
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

SVT-VP9 0.1

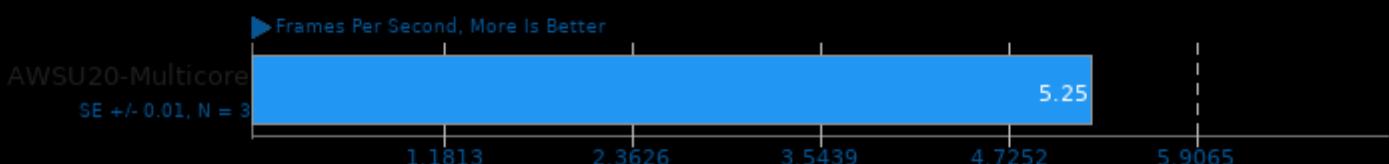
Tuning: Visual Quality Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

VP9 libvpx Encoding 1.8.2

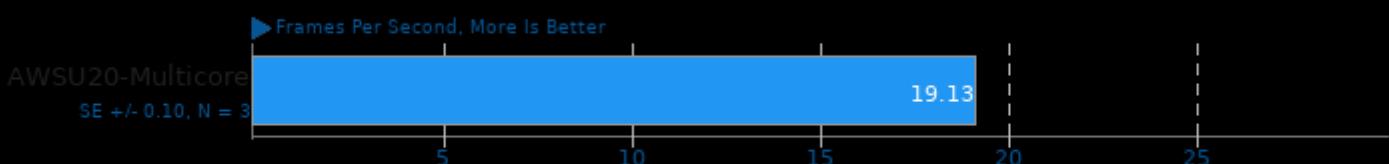
Speed: Speed 0



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

VP9 libvpx Encoding 1.8.2

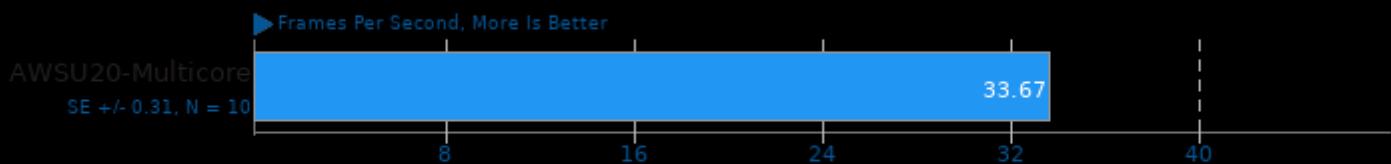
Speed: Speed 5



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

x264 2019-12-17

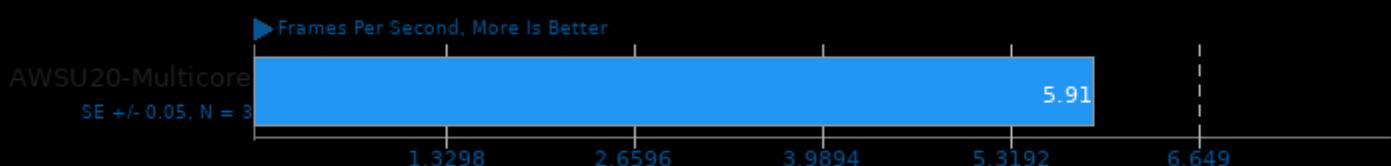
H.264 Video Encoding



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

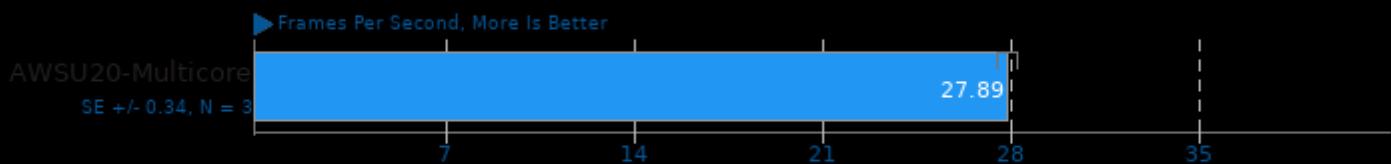
Video Input: Bosphorus 4K



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

x265 3.4

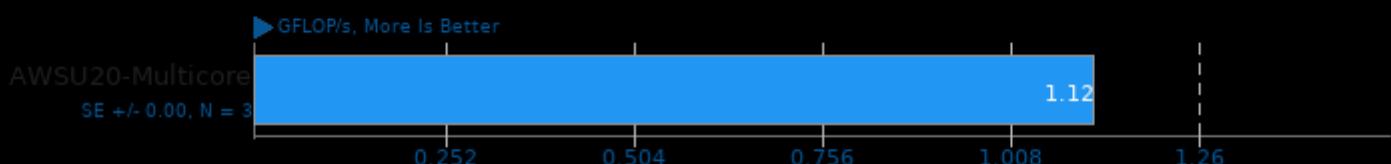
Video Input: Bosphorus 1080p



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

ACES DGEMM 1.0

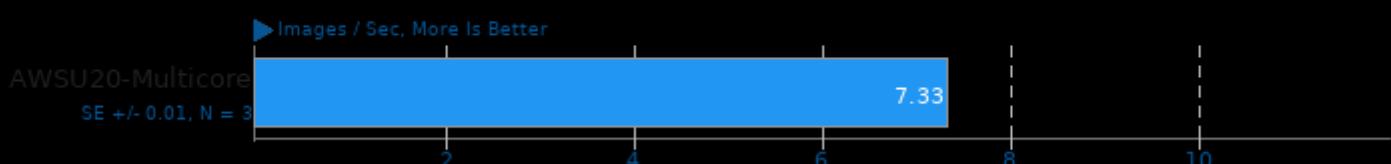
Sustained Floating-Point Rate



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

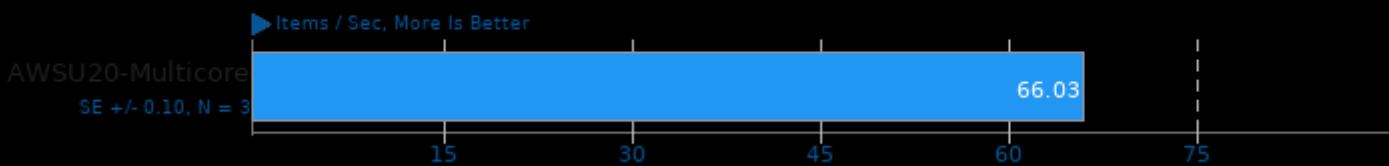
Intel Open Image Denoise 1.2.0

Scene: Memorial



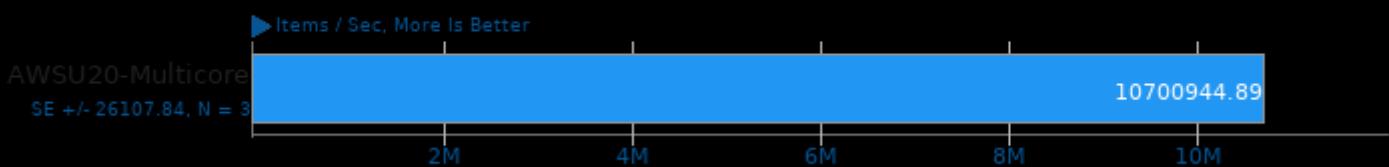
OpenVKL 0.9

Benchmark: vklBenchmark



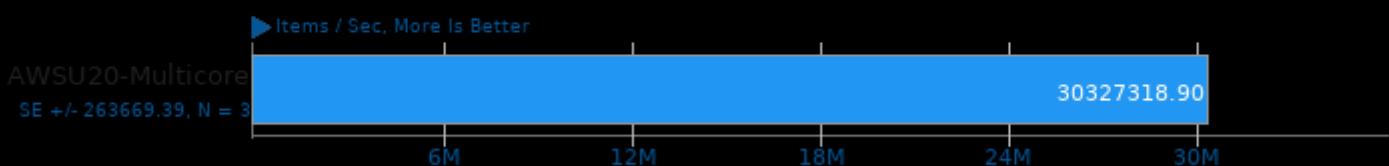
OpenVKL 0.9

Benchmark: vklBenchmarkVdbVolume



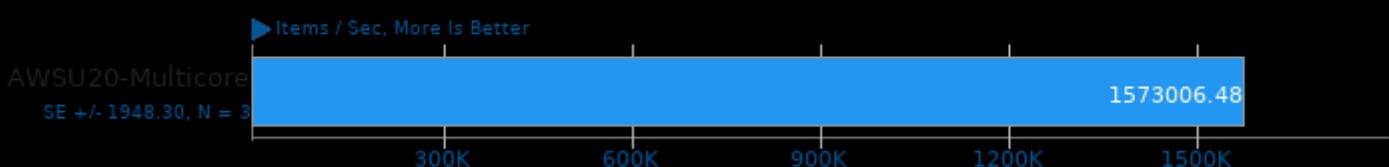
OpenVKL 0.9

Benchmark: vklBenchmarkStructuredVolume



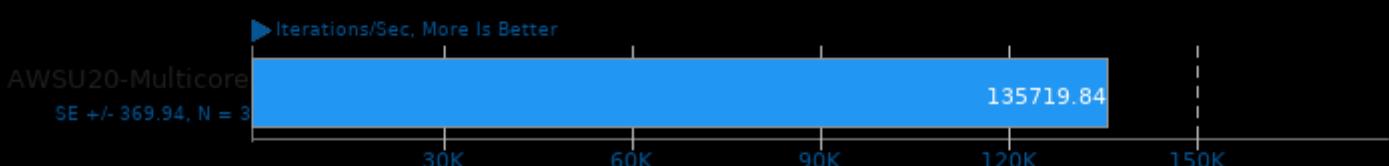
OpenVKL 0.9

Benchmark: vklBenchmarkUnstructuredVolume



Coremark 1.0

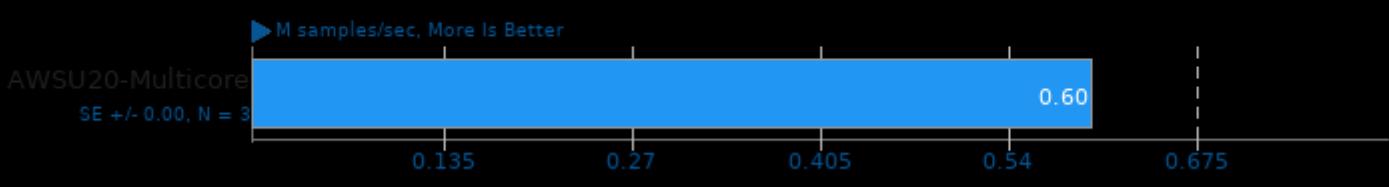
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -fintc -fht

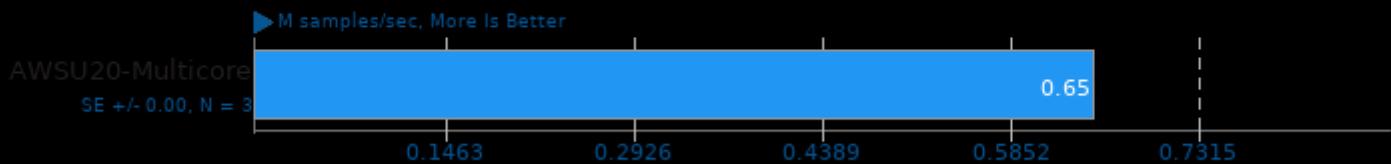
LuxCoreRender 2.3

Scene: DLSC



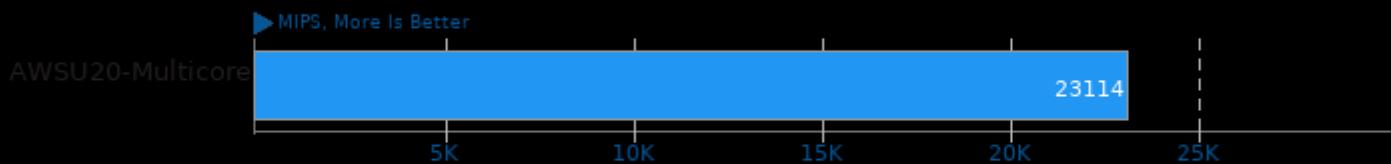
LuxCoreRender 2.3

Scene: Rainbow Colors and Prism



7-Zip Compression 16.02

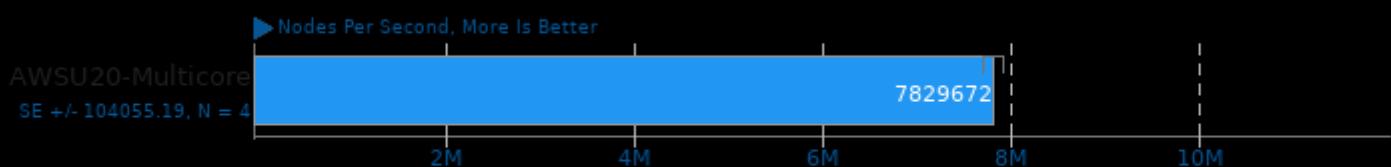
Compress Speed Test



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

Stockfish 12

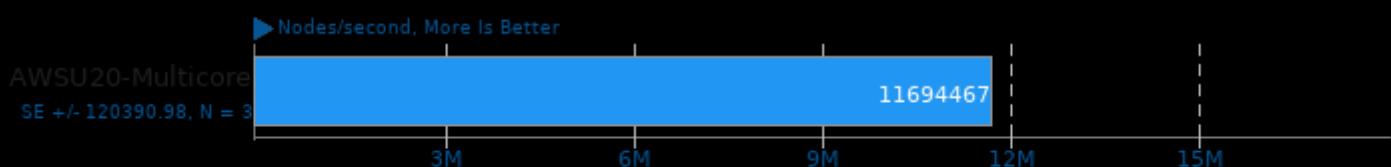
Total Time



1. (CXX) g++ options: -m64 -lpthread -fno-exceptions -std=c++17 -pedantic -O3 -msse -msse3 -mpopcnt -msse4.1 -mssse3 -msse2 -fno -fno-observer

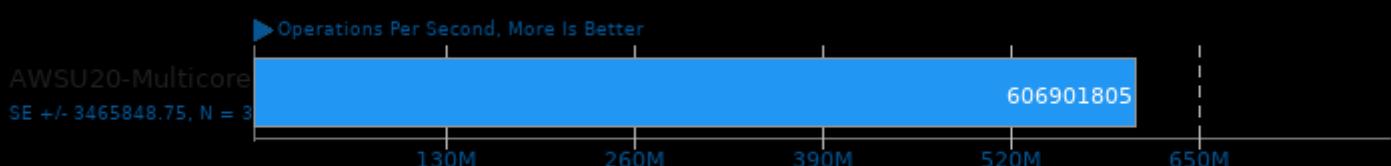
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



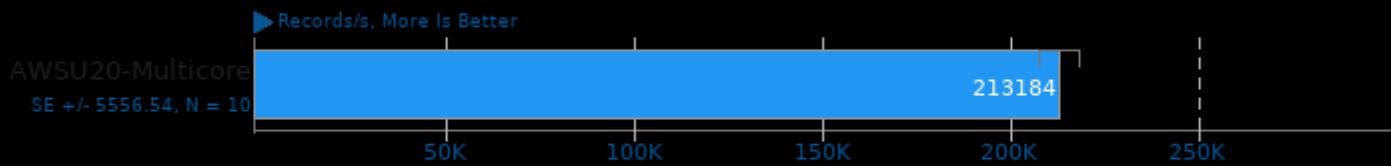
Swet 1.5.16

Average



1. (CC) gcc options: -lm -lpthread -lcurses -lrt

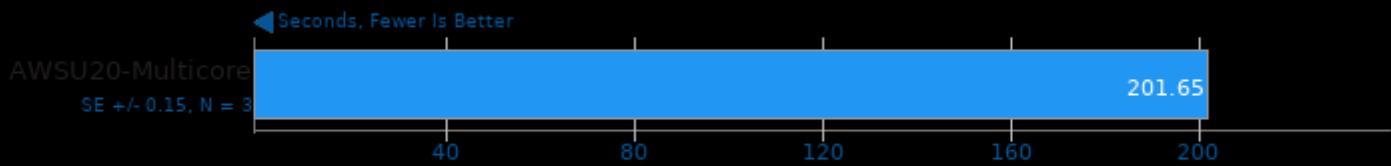
ebizzy 0.3



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

libavif avifenc 0.7.3

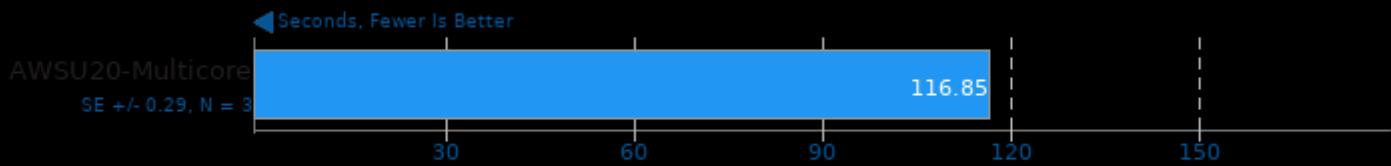
Encoder Speed: 0



1. (CXX) g++ options: -O3 -fPIC

libavif avifenc 0.7.3

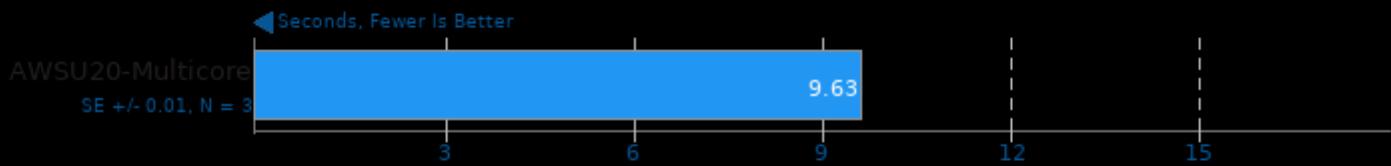
Encoder Speed: 2



1. (CXX) g++ options: -O3 -fPIC

libavif avifenc 0.7.3

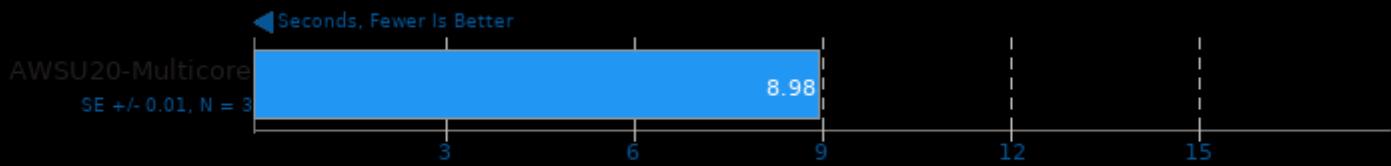
Encoder Speed: 8



1. (CXX) g++ options: -O3 -fPIC

libavif avifenc 0.7.3

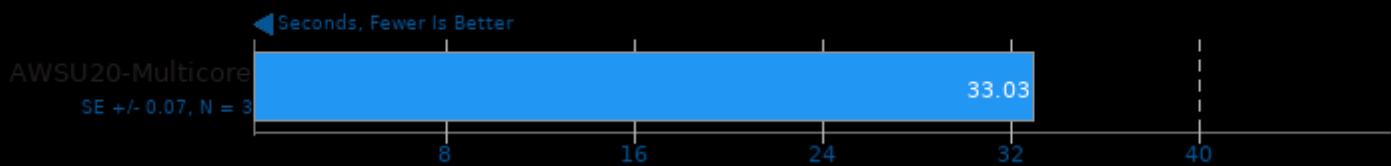
Encoder Speed: 10



1. (CXX) g++ options: -O3 -fPIC

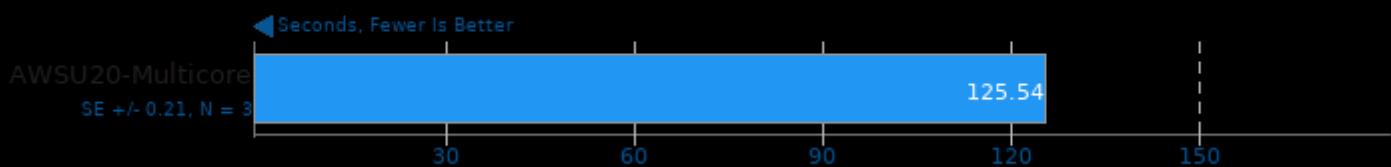
Timed Apache Compilation 2.4.41

Time To Compile



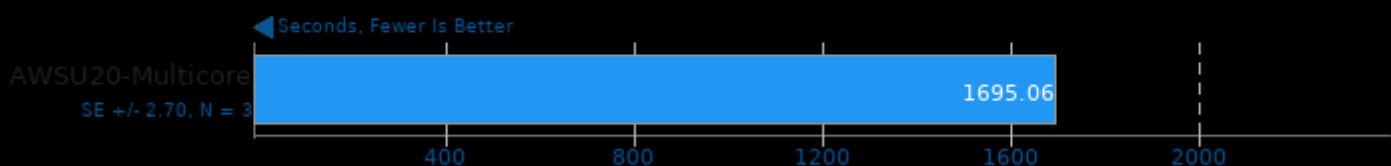
Timed FFmpeg Compilation 4.2.2

Time To Compile



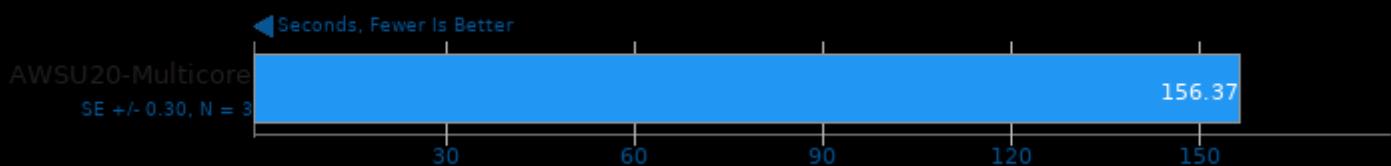
Timed GCC Compilation 9.3.0

Time To Compile



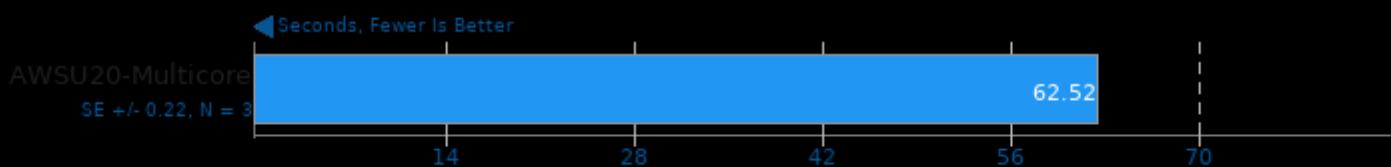
Timed GDB GNU Debugger Compilation 9.1

Time To Compile



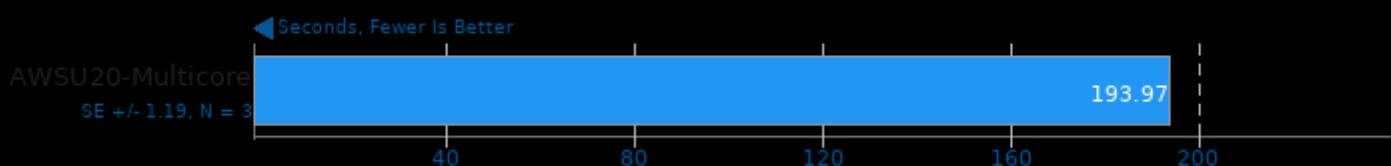
Timed ImageMagick Compilation 6.9.0

Time To Compile



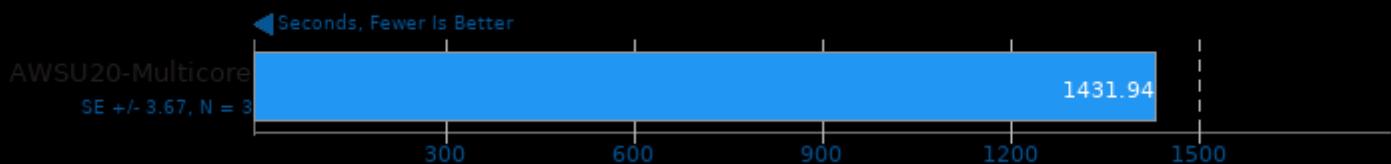
Timed Linux Kernel Compilation 5.4

Time To Compile



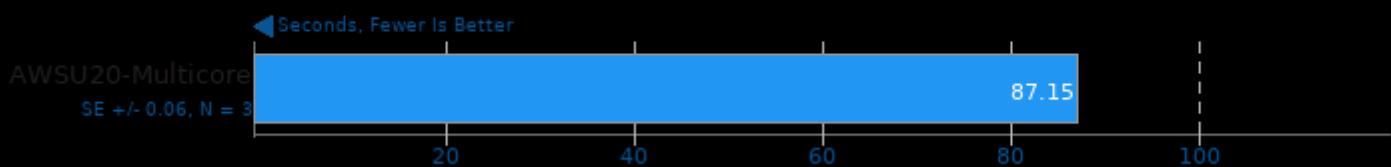
Timed LLVM Compilation 10.0

Time To Compile



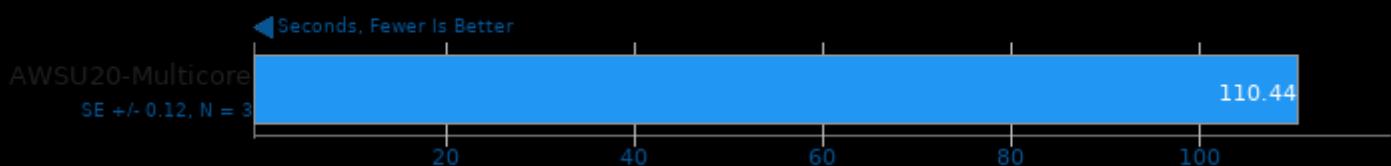
Timed MPlayer Compilation 1.4

Time To Compile



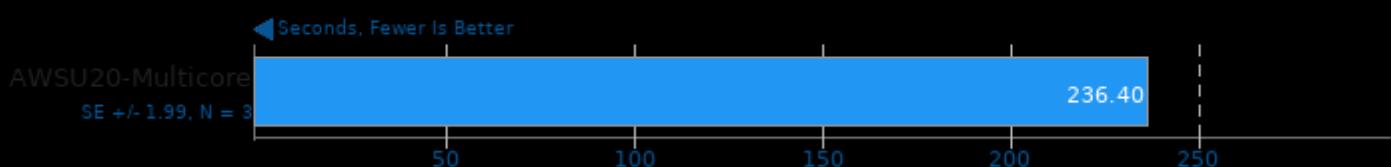
Timed PHP Compilation 7.4.2

Time To Compile



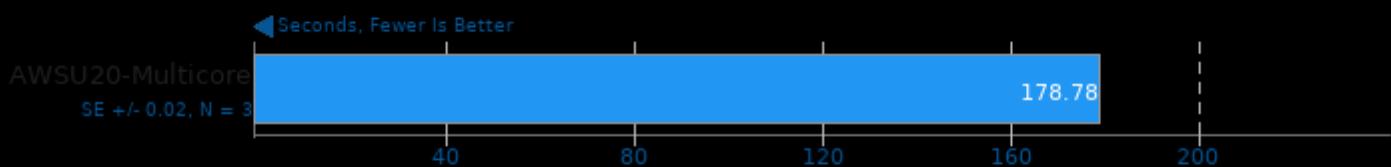
Build2 0.12

Time To Compile



C-Ray 1.1

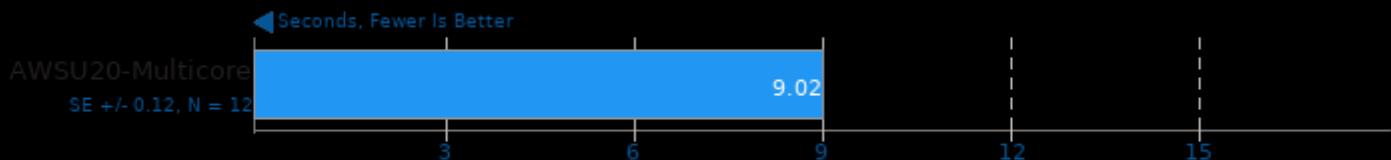
Total Time - 4K, 16 Rays Per Pixel



1. (CC) gcc options: -lm -lpthread -O3

Parallel BZIP2 Compression 1.1.12

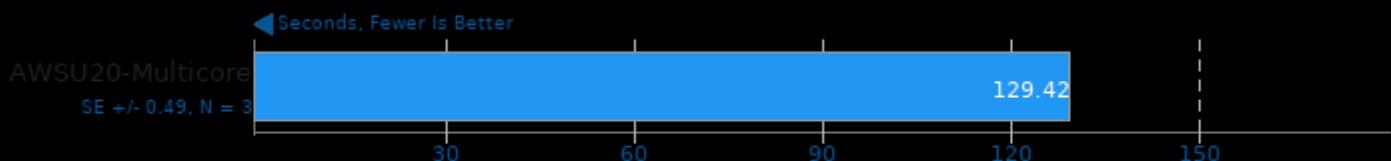
256MB File Compression



1. (CXX) g++ options: -O2 -pthread -lbz2 -pthread

POV-Ray 3.7.0.7

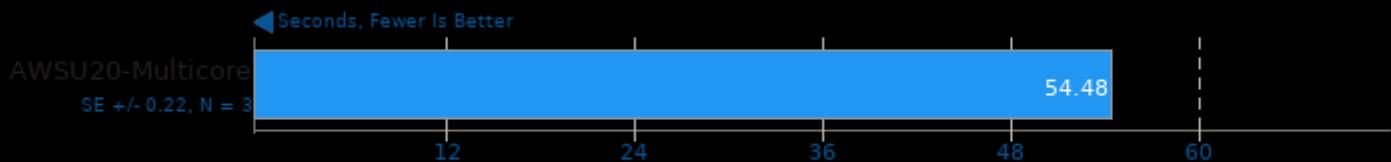
Trace Time



1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lSDL -lXpm -lSM -lICE -lX11 -lXdmf -lImath -lHalf -lex -lexMath -lImThread -lpthread

Primesieve 7.4

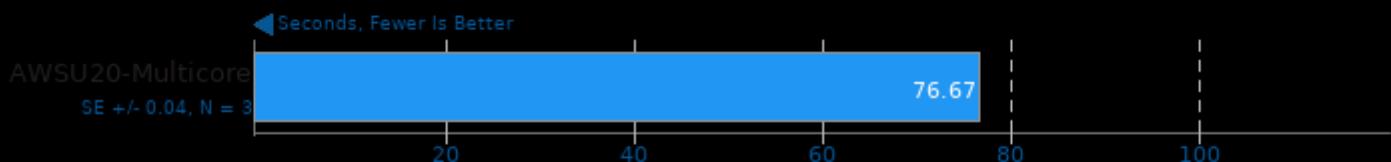
1e12 Prime Number Generation



1. (CXX) g++ options: -O3 -pthread

Rust Mandelbrot

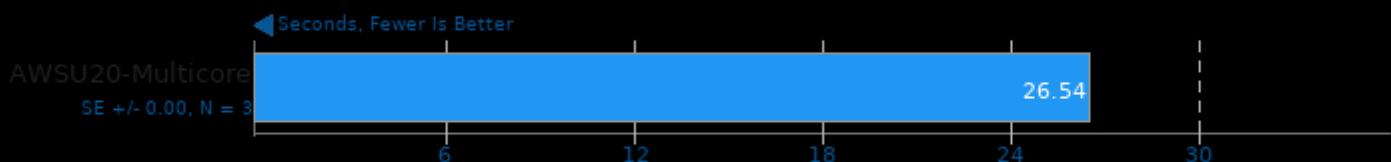
Time To Complete Serial/Parallel Mandelbrot



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

Rust Prime Benchmark

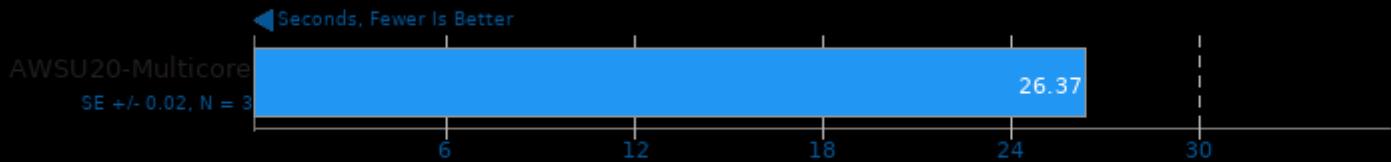
Prime Number Test To 200,000,000



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

Smallpt 1.0

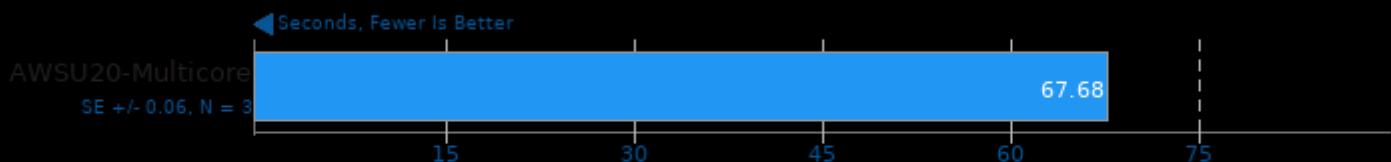
Global Illumination Renderer; 128 Samples



1. (CXX) g++ options: -fopenmp -O3

Tungsten Renderer 0.2.2

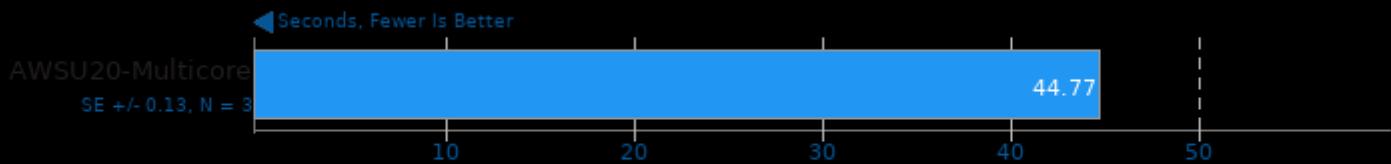
Scene: Hair



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

Tungsten Renderer 0.2.2

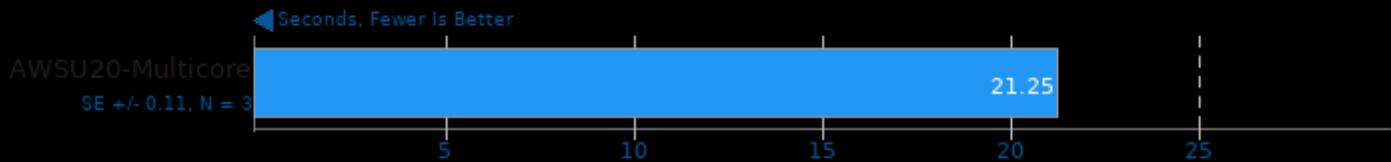
Scene: Water Caustic



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

Tungsten Renderer 0.2.2

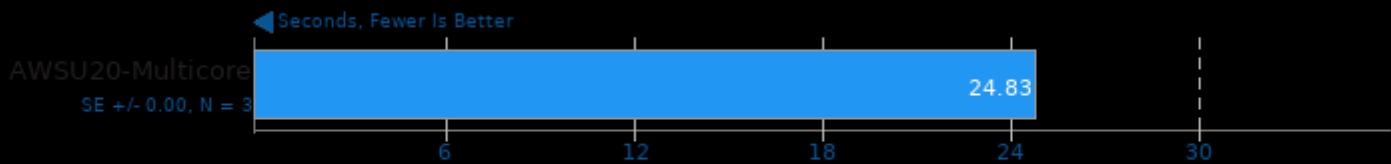
Scene: Non-Exponential



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -msse4.1 -msse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

Tungsten Renderer 0.2.2

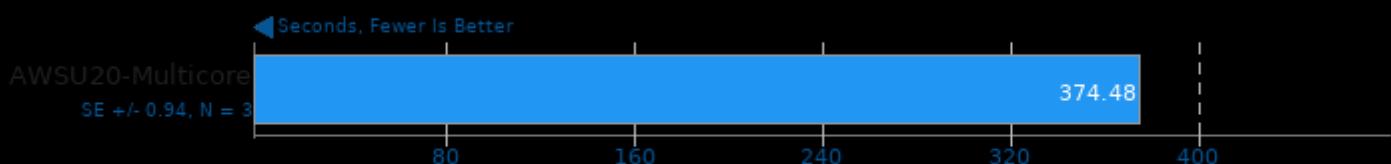
Scene: Volumetric Caustic



1. (CXX) g++ options: -std=c++0x -msse2 -msse3 -mssse3 -mssse4.1 -mssse4.2 -mfma -mbmi2 -mavx512f -mavx512vl -mavx512cd -mavx512dq -mavx512

YafaRay 3.4.1

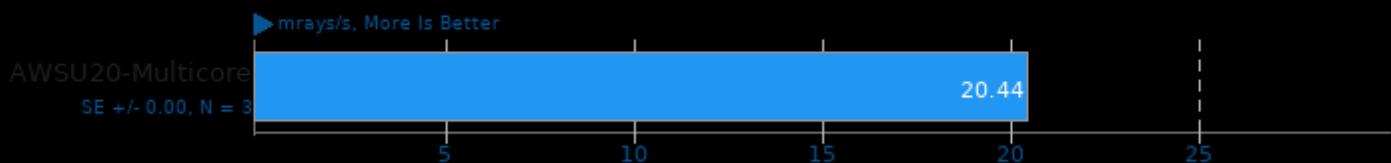
Total Time For Sample Scene



1. (CXX) g++ options: -std=c++11 -O3 -ffast-math -rdynamic -ldl -lmath -lmlmf -lex -lHalf -lz -lilmThread -lxml2 -lfreetype -lpthread

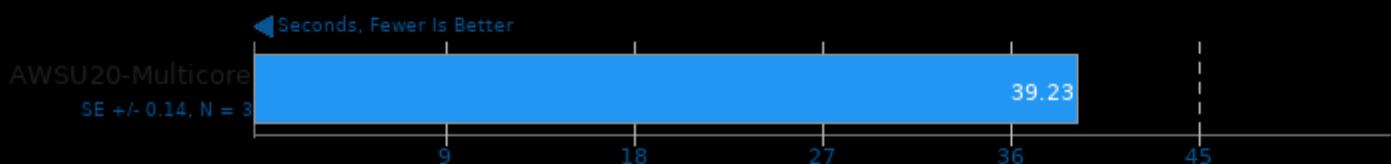
rays1bench 2020-01-09

Large Scene



AOBench

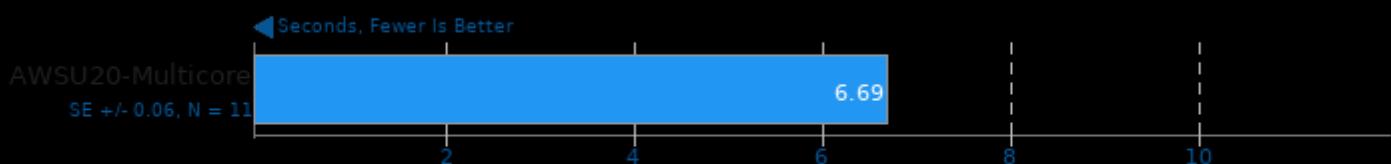
Size: 2048 x 2048 - Total Time



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

FFmpeg 4.0.2

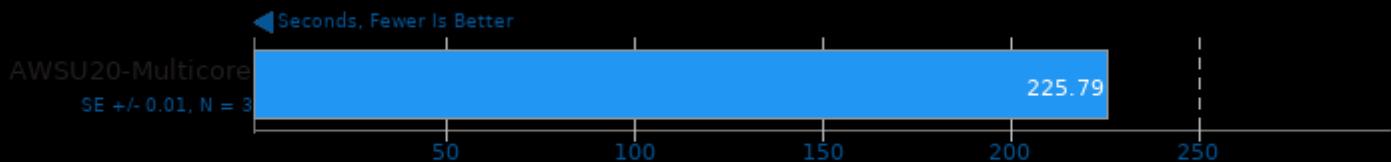
H.264 HD To NTSC DV



1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lxv -lx11 -lxext -lm -lxcb -lasound -pthread -lva -lbz2 -lzma

m-queens 1.2

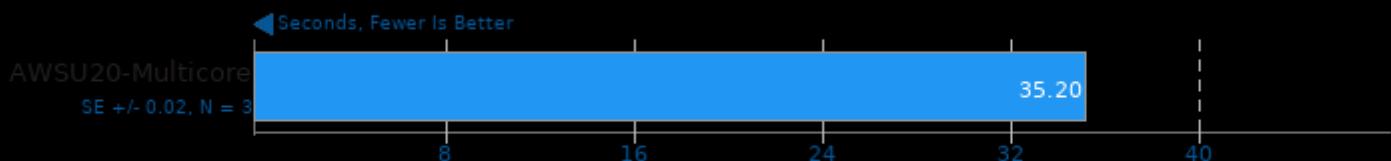
Time To Solve



1. (CXX) g++ options: -fopenmp -O2 -march=native

N-Queens 1.0

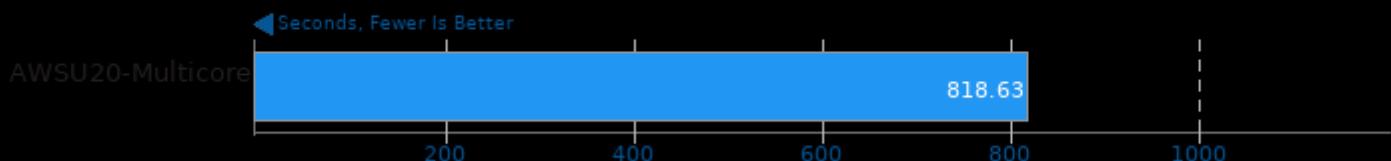
Elapsed Time



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

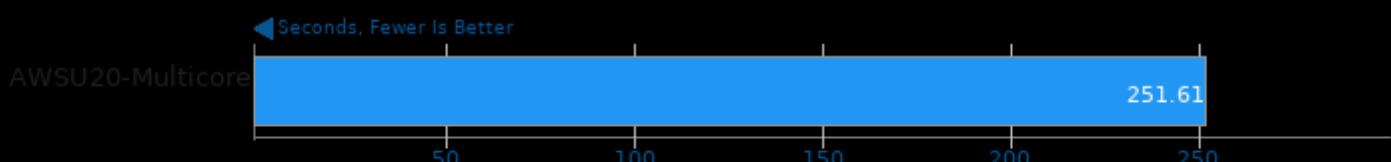
Radiance Benchmark 5.0

Test: Serial



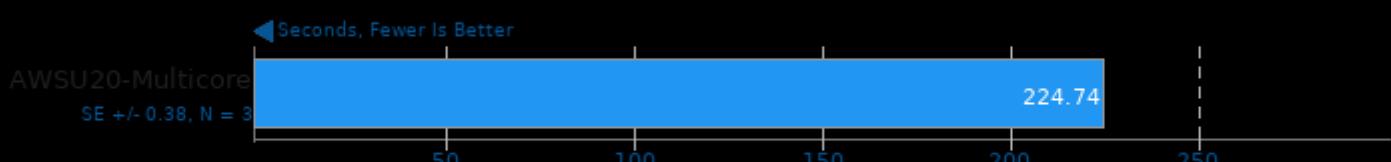
Radiance Benchmark 5.0

Test: SMP Parallel



Tachyon 0.99b6

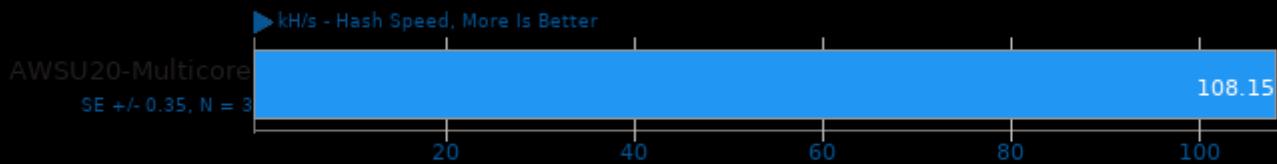
Total Time



1. (CC) gcc options: -m64 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

Cpuminer-Opt 3.8.8.1

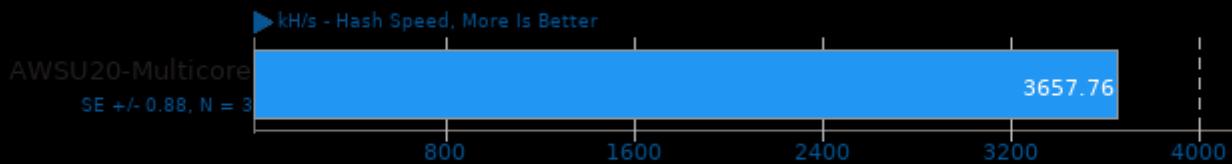
Algorithm: m7m



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.8.8.1

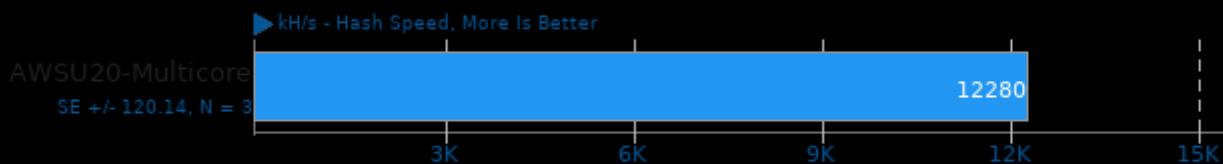
Algorithm: deep



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.8.8.1

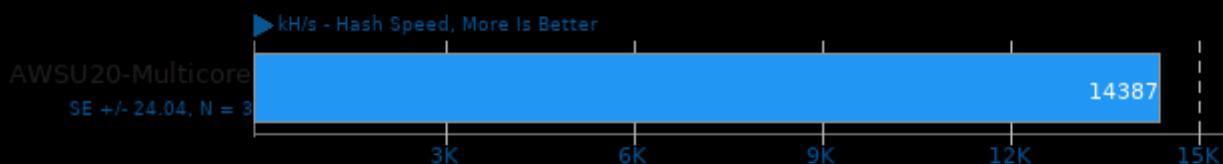
Algorithm: lbry



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.8.8.1

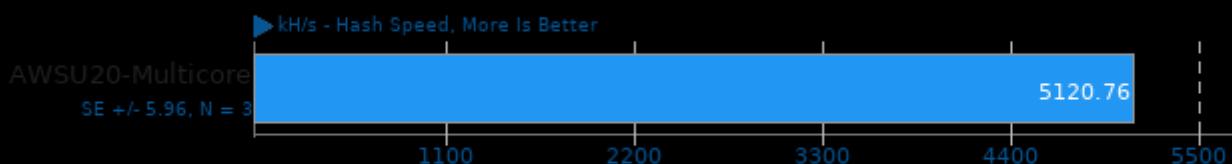
Algorithm: skein



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.8.8.1

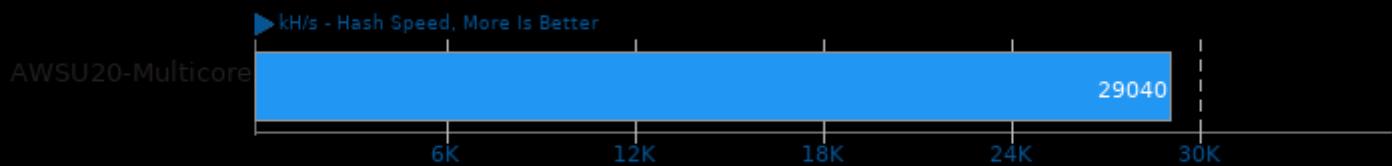
Algorithm: myr-gr



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.8.8.1

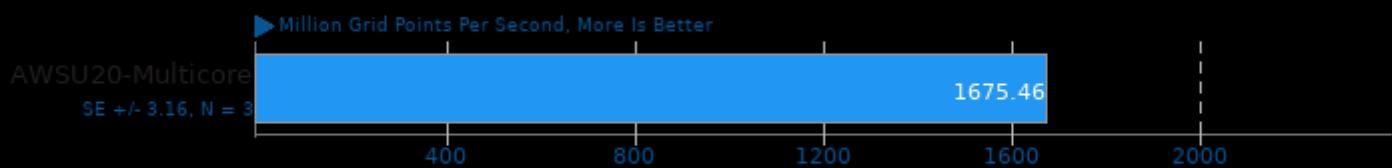
Algorithm: sha256t



1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

ASKAP 2018-11-10

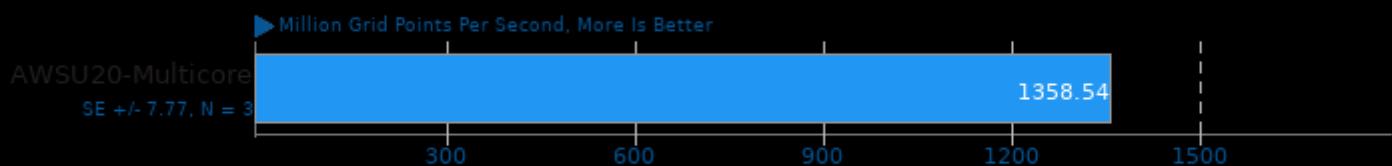
Test: tConvolve MT - Gridding



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

ASKAP 2018-11-10

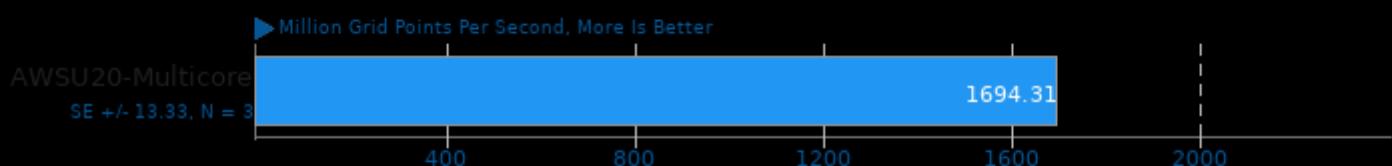
Test: tConvolve MT - Degridding



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

ASKAP 2018-11-10

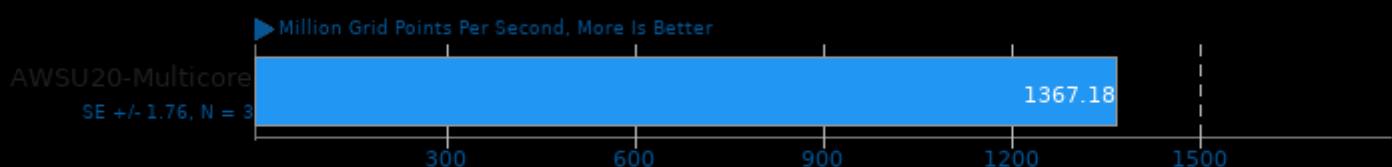
Test: tConvolve MPI - Gridding



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

ASKAP 2018-11-10

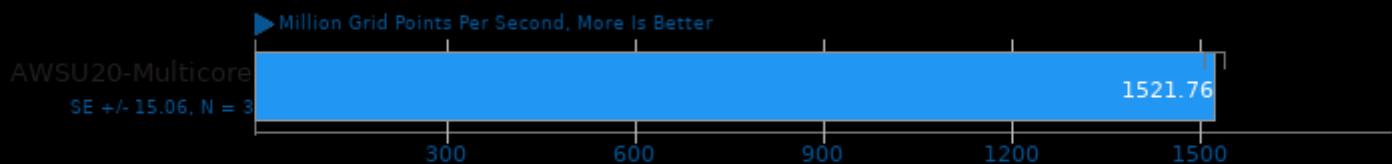
Test: tConvolve MPI - Degridding



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

ASKAP 2018-11-10

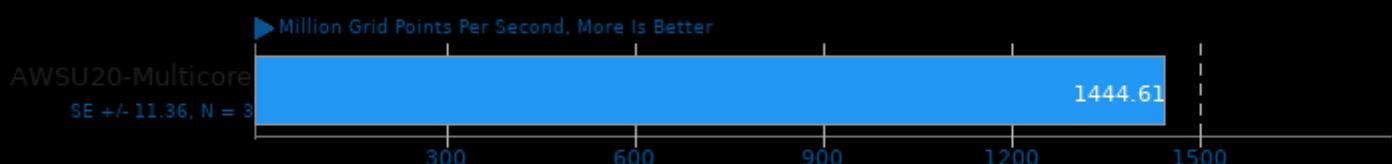
Test: tConvolve OpenMP - Gridding



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

ASKAP 2018-11-10

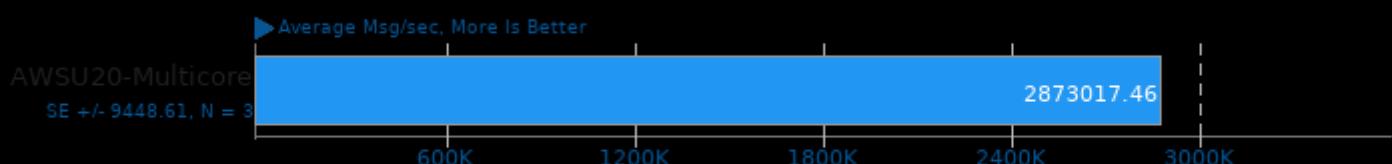
Test: tConvolve OpenMP - Degridding



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

Intel MPI Benchmarks 2019.3

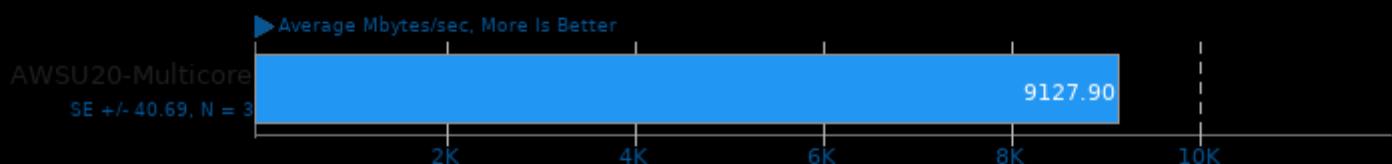
Test: IMB-P2P PingPong



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi_cxx -lmpi

Intel MPI Benchmarks 2019.3

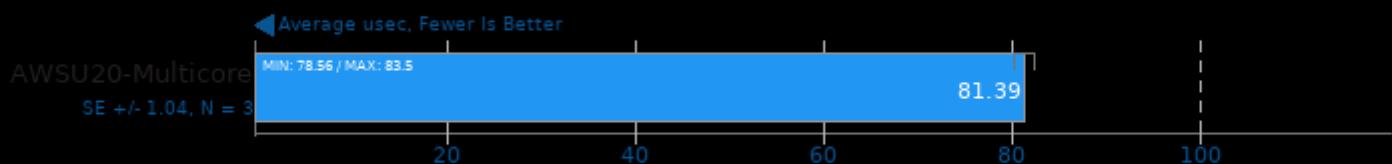
Test: IMB-MPII Exchange



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi_cxx -lmpi

Intel MPI Benchmarks 2019.3

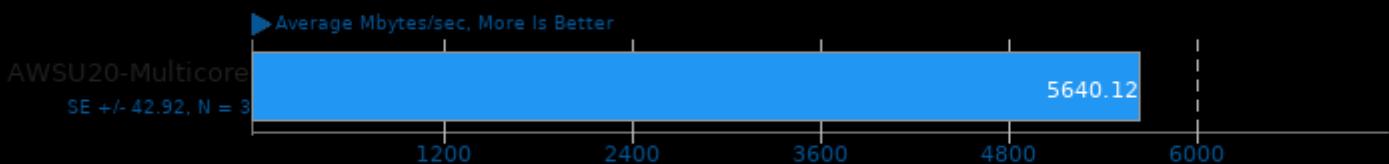
Test: IMB-MPII Exchange



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi_cxx -lmpi

Intel MPI Benchmarks 2019.3

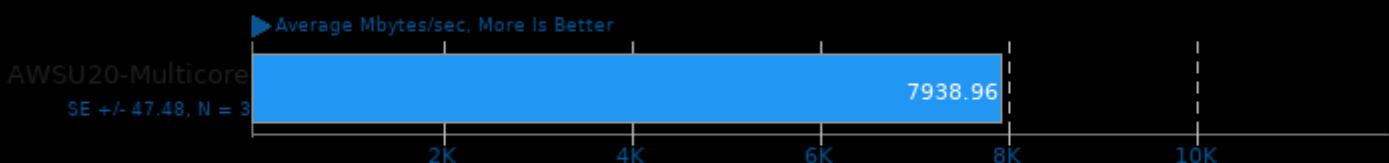
Test: IMB-MPI1 PingPong



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi_cxx -lmpi

Intel MPI Benchmarks 2019.3

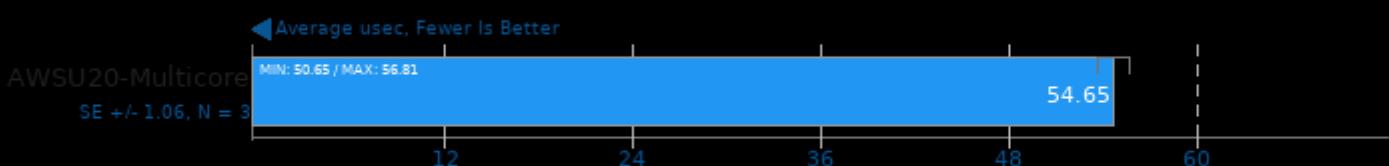
Test: IMB-MPI1 Sendrecv



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi_cxx -lmpi

Intel MPI Benchmarks 2019.3

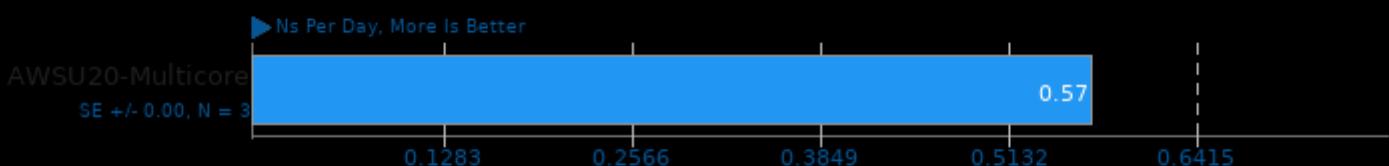
Test: IMB-MPI1 Sendrecv



1. (CXX) g++ options: -O0 -pedantic -fopenmp -pthread -lmpi_cxx -lmpi

GROMACS 2020.3

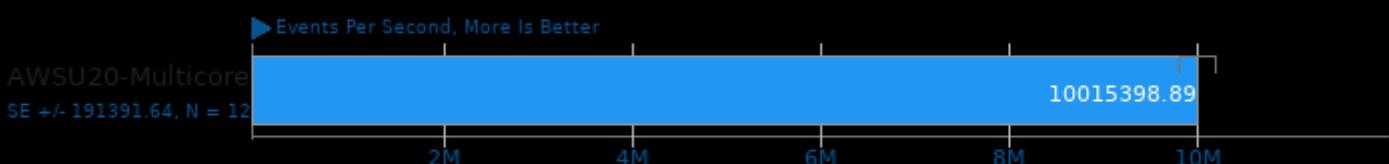
Water Benchmark



1. (CXX) g++ options: -O3 -pthread -lrt -pthread -lm

Sysbench 2018-07-28

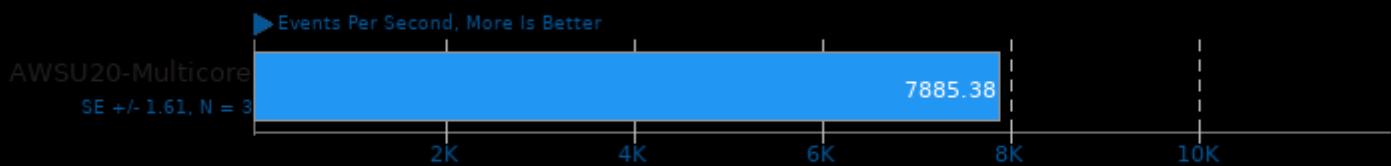
Test: Memory



1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -march=core2 -rdynamic -ldl -lao -lm

Sysbench 2018-07-28

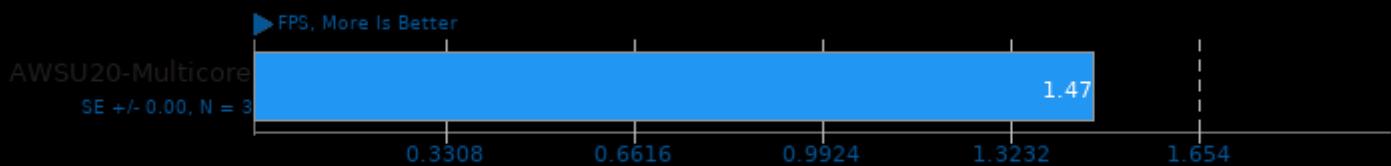
Test: CPU



1. (CC) gcc options: -pthread -O3 -funroll-loops -ggdb3 -march=core2 -rdynamic -ldl -lao -lm

OpenVINO 2021.1

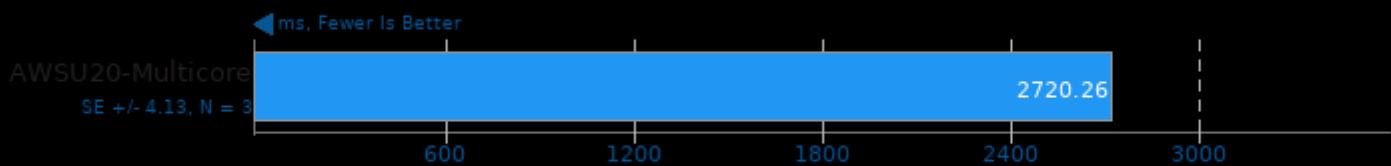
Model: Face Detection 0106 FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

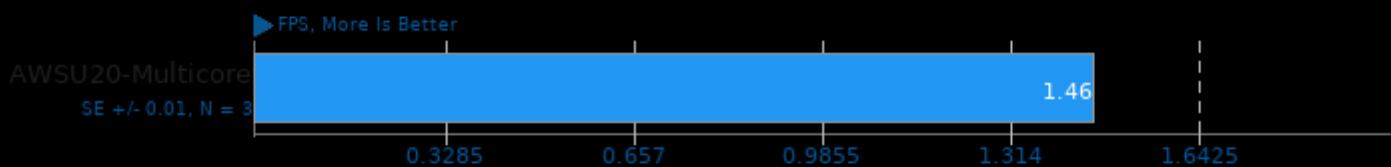
Model: Face Detection 0106 FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

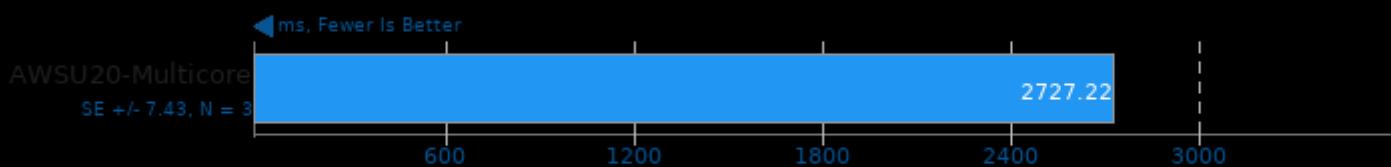
Model: Face Detection 0106 FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

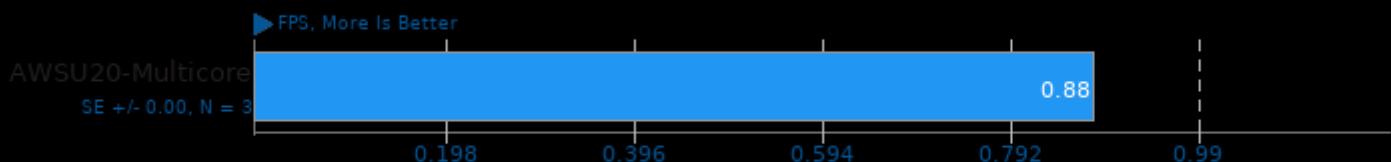
Model: Face Detection 0106 FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

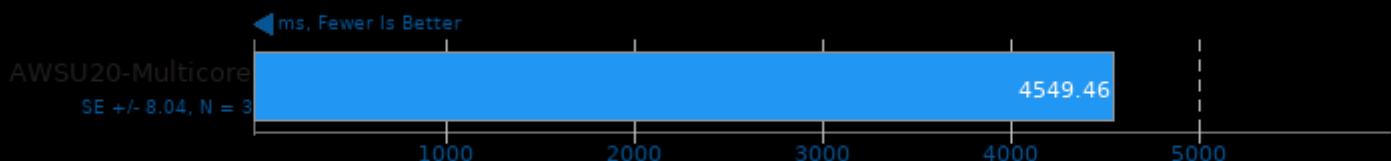
Model: Person Detection 0106 FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

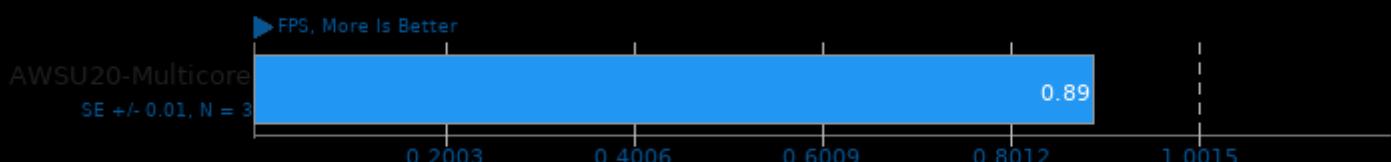
Model: Person Detection 0106 FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

Model: Person Detection 0106 FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

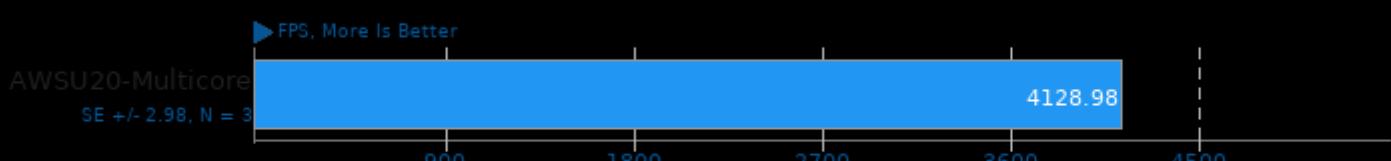
Model: Person Detection 0106 FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

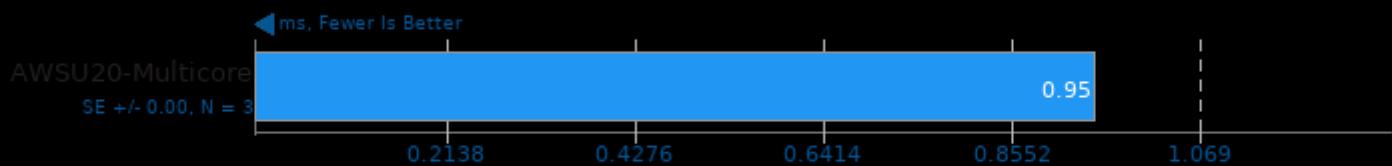
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

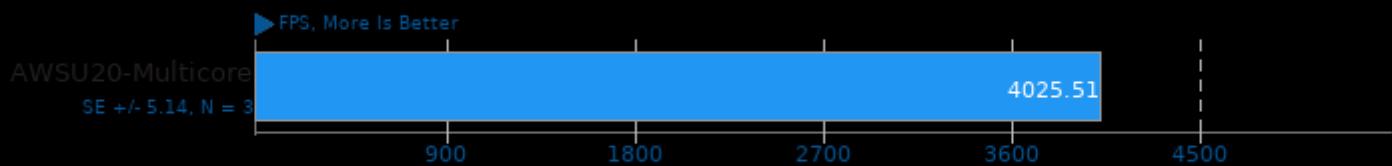
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

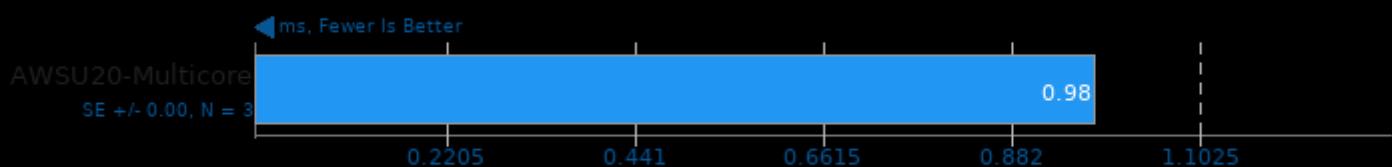
Model: Age Gender Recognition Retail 0013 FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

OpenVINO 2021.1

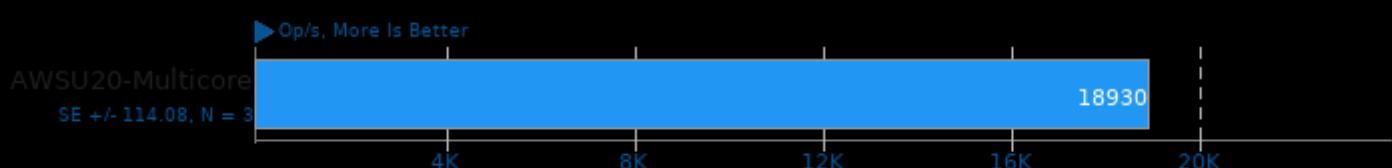
Model: Age Gender Recognition Retail 0013 FP32 - Device: CPU



1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -pie -pthread -lpthread

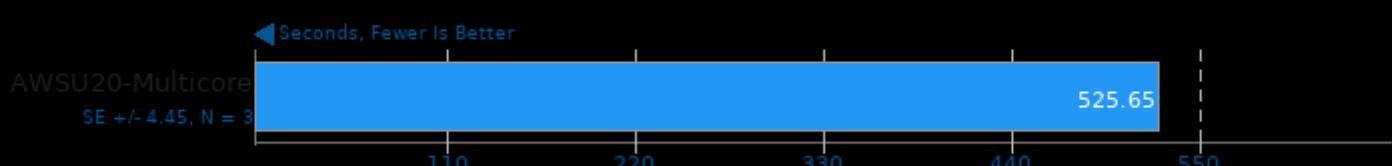
Apache Cassandra 3.11.4

Test: Writes



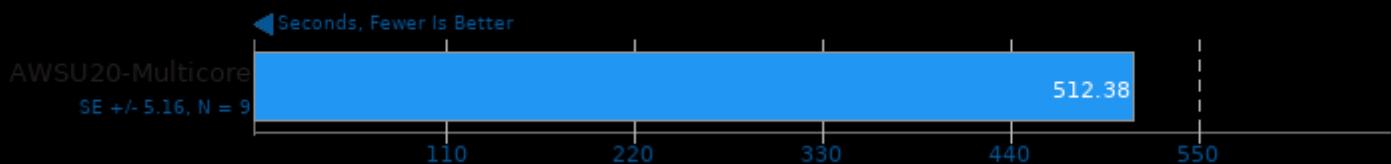
Blender 2.90

Blend File: BMW27 - Compute: CUDA

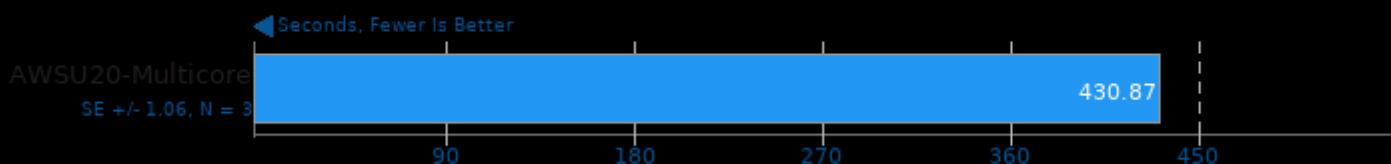


Blender 2.90

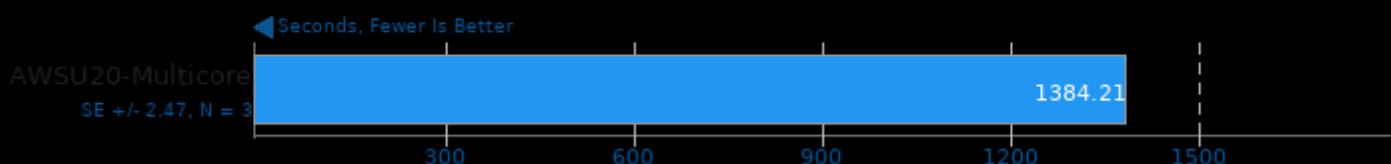
Blend File: BMW27 - Compute: OpenCL

**Blender 2.90**

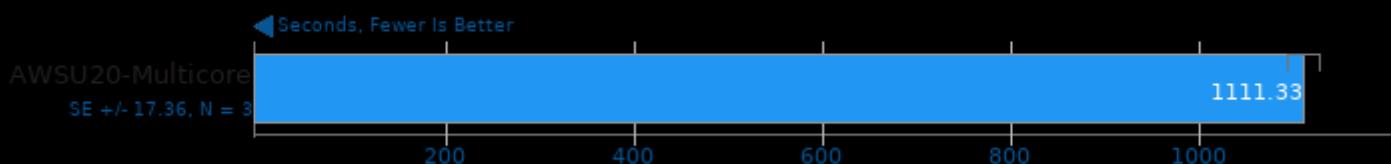
Blend File: BMW27 - Compute: CPU-Only

**Blender 2.90**

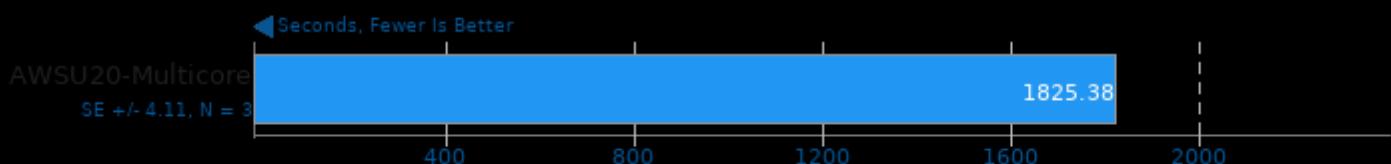
Blend File: Classroom - Compute: CUDA

**Blender 2.90**

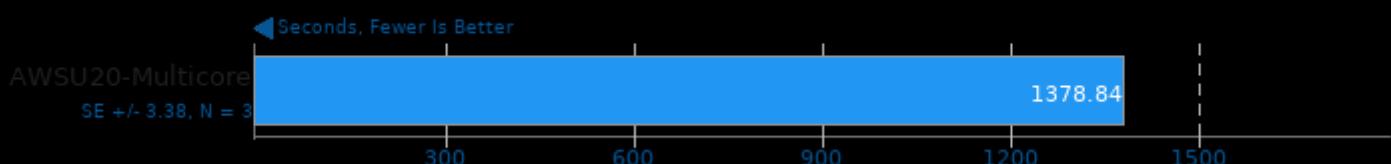
Blend File: Fishy Cat - Compute: CUDA

**Blender 2.90**

Blend File: Barbershop - Compute: CUDA

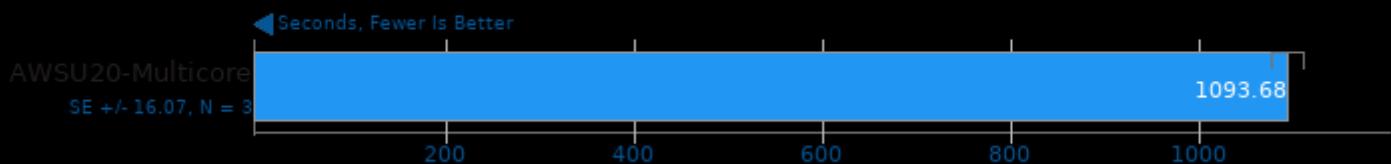
**Blender 2.90**

Blend File: Classroom - Compute: OpenCL



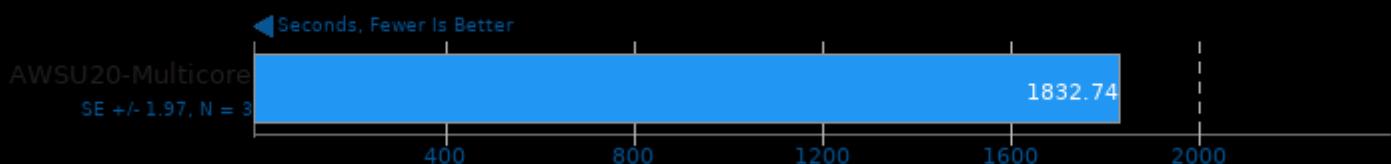
Blender 2.90

Blend File: Fishy Cat - Compute: OpenCL



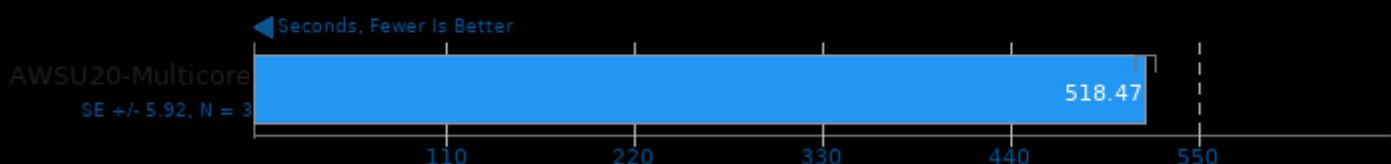
Blender 2.90

Blend File: Barbershop - Compute: OpenCL



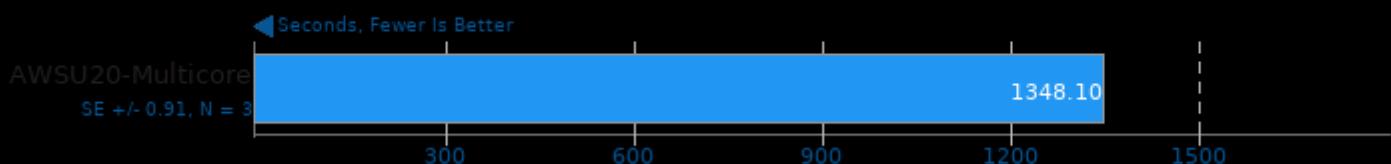
Blender 2.90

Blend File: BMW27 - Compute: NVIDIA OptiX



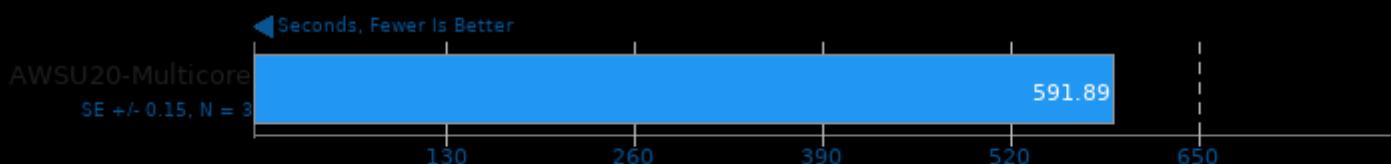
Blender 2.90

Blend File: Classroom - Compute: CPU-Only



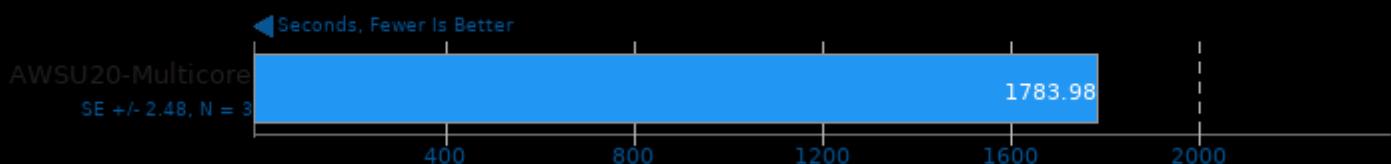
Blender 2.90

Blend File: Fishy Cat - Compute: CPU-Only



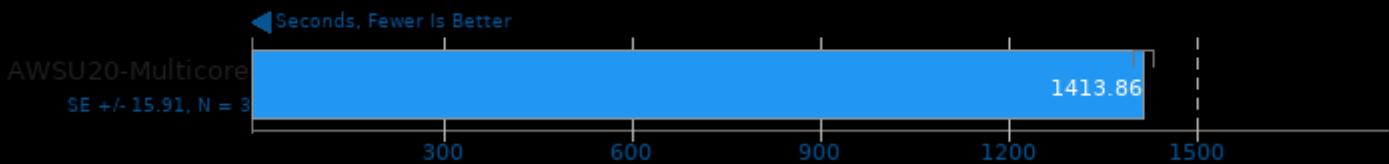
Blender 2.90

Blend File: Barbershop - Compute: CPU-Only

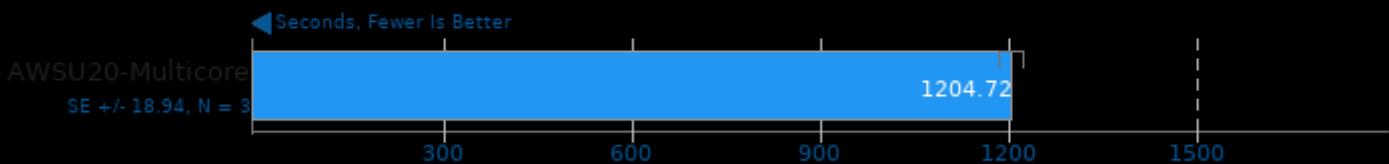


Blender 2.90

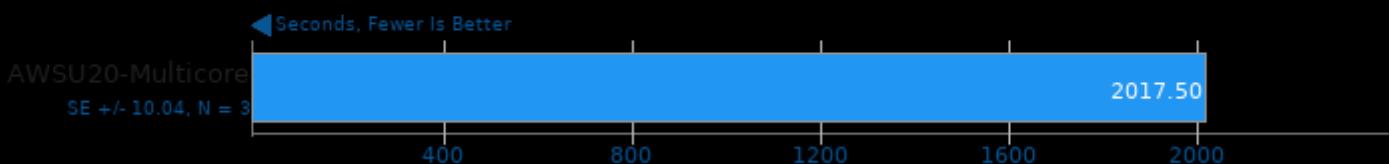
Blend File: Classroom - Compute: NVIDIA OptiX

**Blender 2.90**

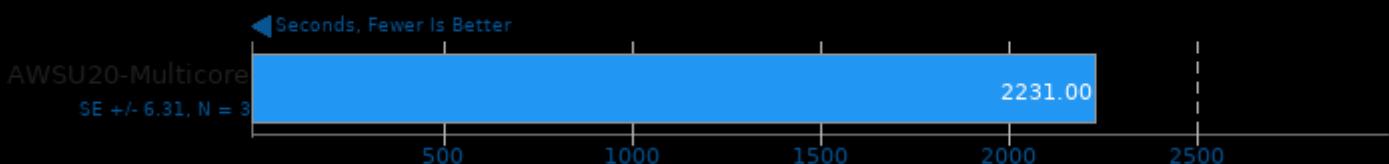
Blend File: Fishy Cat - Compute: NVIDIA OptiX

**Blender 2.90**

Blend File: Barbershop - Compute: NVIDIA OptiX

**Blender 2.90**

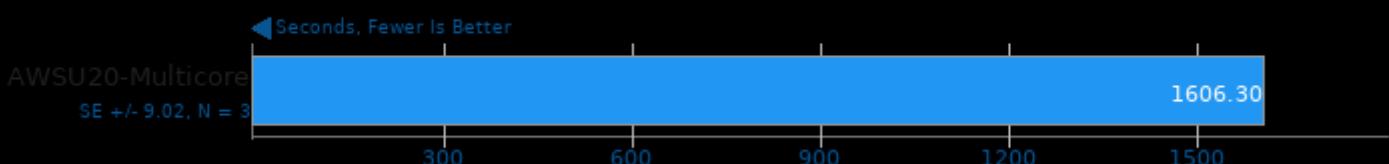
Blend File: Pabellon Barcelona - Compute: CUDA

**Blender 2.90**

Blend File: Pabellon Barcelona - Compute: OpenCL

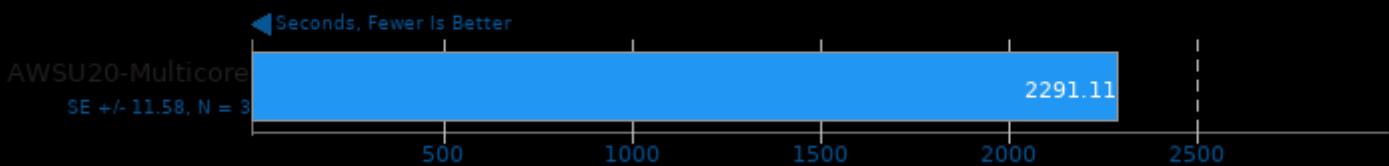
**Blender 2.90**

Blend File: Pabellon Barcelona - Compute: CPU-Only

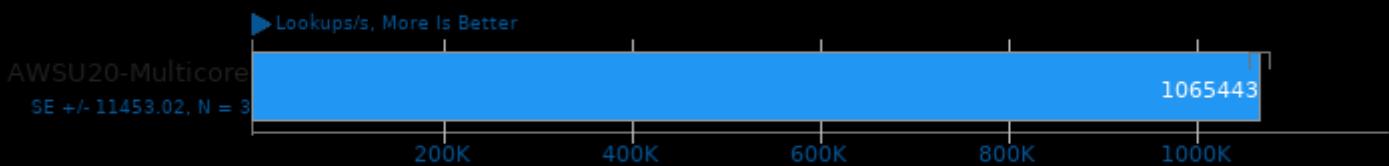


Blender 2.90

Blend File: Pabellon Barcelona - Compute: NVIDIA OptiX

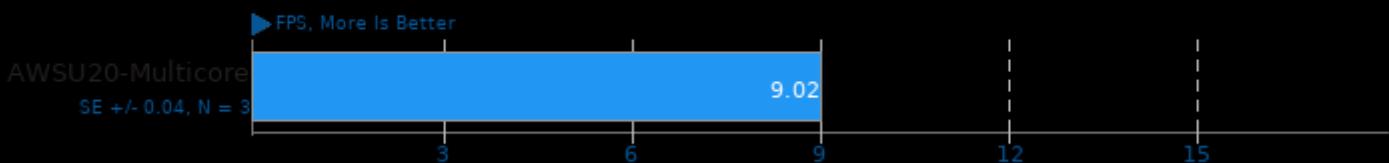


Xsbench 2017-07-06



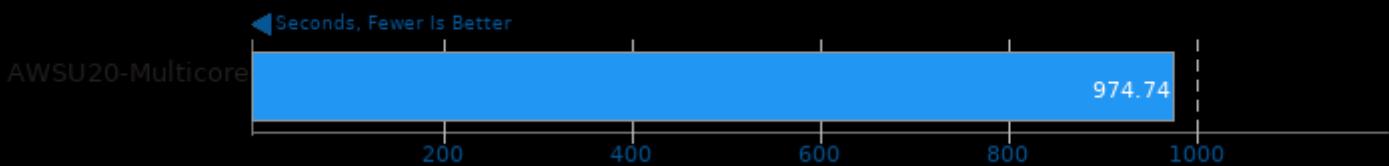
1. (CC) gcc options: -std=gnu99 -fopenmp -O3 -lm

NeatBench 5



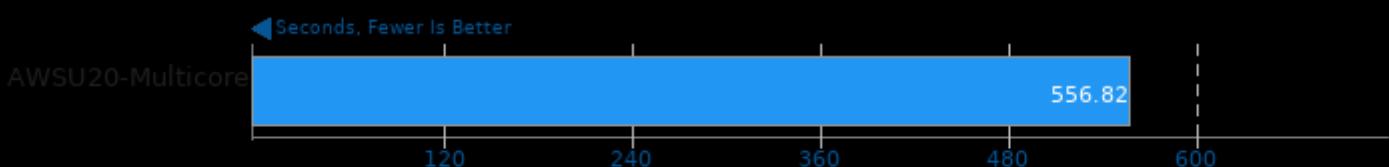
Appleseed 2.0 Beta

Scene: Emily



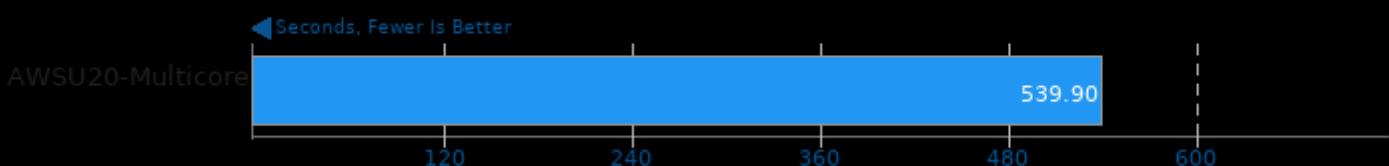
Appleseed 2.0 Beta

Scene: Disney Material



Appleseed 2.0 Beta

Scene: Material Tester



This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 12:39.