



## 7543 EPYC Ubuntu 21.04

AMD EPYC 7543 32-Core testing with a TYAN S8036GM2NE-LE (V2.00.B21 BIOS) and ASPEED on Ubuntu 21.04 via the Phoronix Test Suite.

### Automated Executive Summary

*EPPYC 7543 had the most wins, coming in first place for 54% of the tests.*

*Based on the geometric mean of all complete results, the fastest (2) was 1.004x the speed of the slowest (EPPYC 7543).*

*The results with the greatest spread from best to worst included:*

*NAS Parallel Benchmarks (Test / Class: FT.C) at 1.24x  
NCNN (Target: CPU-v3-v3 - Model: mobilenet-v3) at 1.15x  
OpenVKL (Benchmark: vklBenchmarkStructuredVolume) at 1.059x  
AOM AV1 (Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p) at 1.055x  
SVT-HEVC (Tuning: 7 - Input: Bosphorus 1080p) at 1.043x  
OpenVKL (Benchmark: vklBenchmarkVdbVolume) at 1.038x  
NAS Parallel Benchmarks (Test / Class: CG.C) at 1.033x  
OpenVKL (Benchmark: vklBenchmark) at 1.031x  
NCNN (Target: CPU - Model: mobilenet) at 1.029x*

NCNN (Target: CPU - Model: resnet18) at 1.029x.

## Test Systems:

### EPPYC 7543

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Processor: AMD EPYC 7543 32-Core @ 2.80GHz (32 Cores / 64 Threads), Motherboard: TYAN S8036GM2NE-LE (V2.00.B21 BIOS), Chipset: AMD Starship/Matisse, Memory: 64GB, Disk: 1000GB Western Digital WD\_BLACK SN850 1TB, Graphics: ASPEED, Monitor: VE228, Network: 2 x Broadcom NetXtreme BCM5720 2-port PCIe

OS: Ubuntu 21.04, Kernel: 5.11.0-18-generic (x86\_64), Desktop: GNOME Shell 3.38.4, Display Server: X Server + Wayland, OpenGL: 4.5 Mesa 21.0.1 (LLVM 11.0.1 256 bits), Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise  
 Compiler Notes: --build=x86\_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86\_64-linux-gnu --program-prefix=x86\_64-linux-gnu- --target=x86\_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v  
 Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0xa001119  
 Python Notes: Python 3.9.5

Security Notes: itlb\_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec\_store\_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre\_v1: Mitigation of usercopy/swapgs barriers and \_\_user pointer sanitization + spectre\_v2: Mitigation of Full AMD retrpoline IBPB: conditional IBRS\_FW STIBP: always-on RSB filling + srbs: Not affected + tsx\_async\_abort: Not affected

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<b>NAS Parallel Benchmarks - BT.C (Mop/s)</b>	<b>86656</b>	<b>87480</b>	
Normalized	99.06%	100%	
Standard Deviation	0.2%	0.3%	
<b>NAS Parallel Benchmarks - CG.C (Mop/s)</b>	<b>29176</b>	<b>30146</b>	
Normalized	96.78%	100%	
Standard Deviation	1.7%	2.3%	
<b>NAS Parallel Benchmarks - EP.C (Mop/s)</b>	<b>2909</b>	<b>2844</b>	
Normalized	100%	97.75%	
Standard Deviation	2.1%	5.9%	
<b>NAS Parallel Benchmarks - EP.D (Mop/s)</b>	<b>2962</b>	<b>2969</b>	
Normalized	99.76%	100%	
Standard Deviation	1.2%	0.8%	
<b>NAS Parallel Benchmarks - FT.C (Mop/s)</b>	<b>38990</b>	<b>48349</b>	
Normalized	80.64%	100%	
Standard Deviation	2.5%	0.5%	
<b>NAS Parallel Benchmarks - IS.D (Mop/s)</b>	<b>1894</b>	<b>1895</b>	
Normalized	99.96%	100%	

	Standard Deviation	4.8%	1.5%
<b>NAS Parallel Benchmarks - LU.C (Mop/s)</b>	<b>103956</b>	<b>103990</b>	
Normalized	99.97%	100%	
Standard Deviation	0.8%	0.6%	
<b>NAS Parallel Benchmarks - MG.C (Mop/s)</b>	<b>48142</b>	<b>49254</b>	
Normalized	97.74%	100%	
Standard Deviation	0.2%	0.1%	
<b>NAS Parallel Benchmarks - SP.B (Mop/s)</b>	<b>67813</b>	<b>67721</b>	
Normalized	100%	99.86%	
Standard Deviation	0.5%	0.2%	
<b>NAS Parallel Benchmarks - SP.C (Mop/s)</b>	<b>32837</b>	<b>33318</b>	
Normalized	98.56%	100%	
Standard Deviation	0.2%	0.3%	
<b>NAMD - ATPase Simulation - 327,506 Atoms (days/ns)</b>	<b>0.68178</b>	<b>0.67718</b>	
Normalized	99.33%	100%	
Standard Deviation	1.4%	1%	
<b>toyBrot Fractal Generator - TBB (ms)</b>	<b>12854</b>	<b>12561</b>	
Normalized	97.72%	100%	
Standard Deviation	2.4%	1.9%	
<b>toyBrot Fractal Generator - OpenMP (ms)</b>	<b>12815</b>	<b>12810</b>	
Normalized	99.96%	100%	
Standard Deviation	0.9%	0.8%	
<b>toyBrot Fractal Generator - C++ Tasks (ms)</b>	<b>12926</b>	<b>12951</b>	
Normalized	100%	99.81%	
Standard Deviation	0.8%	1.5%	
<b>toyBrot Fractal Generator - C++ Threads (ms)</b>	<b>12640</b>	<b>12603</b>	
Normalized	99.71%	100%	
Standard Deviation	0.5%	0.2%	
<b>Pennant - sedovbig (Hydro Cycle Time - sec)</b>	<b>15.75069</b>	<b>15.75626</b>	
Normalized	100%	99.96%	
Standard Deviation	1.5%	0.6%	
<b>Pennant - leblancbig (Hydro Cycle Time - sec)</b>	<b>9.611897</b>	<b>9.725950</b>	
Normalized	100%	98.83%	
Standard Deviation	0.6%	0.6%	
<b>Xcompact3d Incompact3d - i.i.1.C.P.D (sec)</b>	<b>6.14532347</b>	<b>6.07545233</b>	
Normalized	98.86%	100%	
Standard Deviation	2.5%	0.7%	
<b>Xcompact3d Incompact3d - i.i.1.C.P.D (sec)</b>	<b>27.8616452</b>	<b>28.2131564</b>	
Normalized	100%	98.75%	
Standard Deviation	2.3%	2.3%	
<b>Xmrig - Monero - 1M (H/s)</b>	<b>21807</b>	<b>21865</b>	
Normalized	99.73%	100%	
Standard Deviation	0.8%	0.2%	
<b>Xmrig - Wownero - 1M (H/s)</b>	<b>22664</b>	<b>23113</b>	
Normalized	98.06%	100%	
Standard Deviation	0.2%	0.4%	
<b>Zstd Compression - 3 - Compression Speed (MB/s)</b>	<b>5108</b>	<b>5026</b>	
Normalized	100%	98.4%	
Standard Deviation	5.5%	3.9%	
<b>Zstd Compression - 3 - D.S (MB/s)</b>	<b>3491</b>	<b>3455</b>	
Normalized	100%	98.97%	
Standard Deviation	1.4%	3.1%	
<b>Zstd Compression - 8 - Compression Speed (MB/s)</b>	<b>2761</b>	<b>2767</b>	
Normalized	99.76%	100%	
Standard Deviation	1.7%	1.3%	

Zstd Compression - 8 - D.S (MB/s)	<b>3590</b>	<b>3648</b>
Normalized	98.41%	100%
Standard Deviation	0.4%	0.5%
Zstd Compression - 19 - Compression Speed (MB/s)	<b>60.2</b>	<b>66.2</b>
Normalized	90.94%	100%
Standard Deviation	9.9%	13.7%
Zstd Compression - 19 - D.S (MB/s)	<b>3198</b>	<b>3208</b>
Normalized	99.68%	100%
Standard Deviation	1.6%	1.4%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	<b>581.6</b>	<b>597.8</b>
Normalized	97.29%	100%
Standard Deviation	1%	4%
Zstd Compression - 3, Long Mode - D.S (MB/s)	<b>3783</b>	<b>3733</b>
Normalized	100%	98.69%
Standard Deviation	1.1%	0.9%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	<b>763.6</b>	<b>767.8</b>
Normalized	99.45%	100%
Standard Deviation	1.2%	2%
Zstd Compression - 8, Long Mode - D.S (MB/s)	<b>3907</b>	<b>3831</b>
Normalized	100%	98.07%
Standard Deviation	1.5%	1.1%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	<b>39.2</b>	<b>40.3</b>
Normalized	97.27%	100%
Standard Deviation	0.3%	2%
Zstd Compression - 19, Long Mode - D.S (MB/s)	<b>3178</b>	<b>3178</b>
Normalized	100%	99.99%
Standard Deviation	0.4%	0.4%
LuxCoreRender - DLSC - CPU (M samples/sec)	<b>5.42</b>	<b>5.45</b>
Normalized	99.45%	100%
Standard Deviation	0.3%	0.4%
LuxCoreRender - Danish Mood - CPU (M samples/sec)	<b>4.34</b>	<b>4.33</b>
Normalized	100%	99.77%
Standard Deviation	0.5%	0.7%
LuxCoreRender - Orange Juice - CPU (M samples/sec)	<b>8.28</b>	<b>8.24</b>
Normalized	100%	99.52%
Standard Deviation	0.3%	0.5%
LuxCoreRender - LuxCore Benchmark - CPU (M samples/sec)	<b>4.71</b>	<b>4.67</b>
Normalized	100%	99.15%
Standard Deviation	0.1%	0.1%
LuxCoreRender - R.C.a.P - CPU (M samples/sec)	<b>16.35</b>	<b>16.76</b>
Normalized	97.55%	100%
Standard Deviation	5.9%	6.3%
dav1d - Chimera 1080p (FPS)	<b>548.48</b>	<b>546.34</b>
Normalized	100%	99.61%
Standard Deviation	0.5%	0.3%
dav1d - Summer Nature 4K (FPS)	<b>407.08</b>	<b>406.30</b>
Normalized	100%	99.81%
Standard Deviation	0.3%	0.6%
dav1d - S.N.1 (FPS)	<b>538.66</b>	<b>537.46</b>
Normalized	100%	99.78%
Standard Deviation	2.1%	1.8%

dav1d - C.1.1.b (FPS)	<b>409.34</b>	<b>408.70</b>
Normalized	100%	99.84%
Standard Deviation	0.3%	0%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)	<b>0.2</b>	<b>0.2</b>
Standard Deviation	0%	0%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	<b>3.92</b>	<b>3.90</b>
Normalized	100%	99.49%
Standard Deviation	1.4%	1.6%
AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	<b>10.58</b>	<b>10.48</b>
Normalized	100%	99.05%
Standard Deviation	0.8%	0.1%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	<b>7.04</b>	<b>7.15</b>
Normalized	98.46%	100%
Standard Deviation	2.2%	0.3%
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	<b>31.34</b>	<b>31.62</b>
Normalized	99.11%	100%
Standard Deviation	0.8%	1.3%
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	<b>44.78</b>	<b>44.48</b>
Normalized	100%	99.33%
Standard Deviation	0.9%	0.2%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p	<b>0.51</b>	<b>0.51</b>
Standard Deviation	1.1%	0%
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p	<b>6.69</b>	<b>6.65</b>
Normalized	100%	99.4%
Standard Deviation	1%	2.5%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p	<b>25.51</b>	<b>24.97</b>
Normalized	100%	97.88%
Standard Deviation	1.8%	4.4%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p	<b>19.00</b>	<b>18.84</b>
Normalized	100%	99.16%
Standard Deviation	4.1%	0.7%
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p	<b>74.52</b>	<b>78.63</b>
Normalized	94.77%	100%
Standard Deviation	2.5%	1.4%
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p	<b>102.77</b>	<b>102.06</b>
Normalized	100%	99.31%
Standard Deviation	2.5%	5.4%
Embree - Pathtracer - Crown (FPS)	<b>36.1780</b>	<b>36.3189</b>
Normalized	99.61%	100%
Standard Deviation	0.2%	0.2%
Embree - Pathtracer ISPC - Crown (FPS)	<b>33.3181</b>	<b>33.3017</b>
Normalized	100%	99.95%
Standard Deviation	0.4%	0%
Embree - Pathtracer - Asian Dragon (FPS)	<b>41.1863</b>	<b>41.2382</b>
Normalized	99.87%	100%
Standard Deviation	0.9%	1%
Embree - Pathtracer - Asian Dragon Obj (FPS)	<b>36.8465</b>	<b>36.2914</b>
Normalized	100%	98.49%
Standard Deviation	0.4%	2.4%
Embree - Pathtracer ISPC - Asian Dragon (FPS)	<b>36.8038</b>	<b>36.7191</b>
Normalized	100%	99.77%
Standard Deviation	0.6%	0.6%
Embree - Pathtracer ISPC - Asian Dragon Obj (FPS)	<b>32.9763</b>	<b>32.8729</b>
Normalized	100%	99.69%
Standard Deviation	0.2%	0.5%

<b>SVT-HEVC - 1 - Bosphorus 1080p (FPS)</b>	<b>24.56</b>	<b>24.57</b>
Normalized	99.96%	100%
Standard Deviation	0.8%	0.6%
<b>SVT-HEVC - 7 - Bosphorus 1080p (FPS)</b>	<b>295.83</b>	<b>283.61</b>
Normalized	100%	95.87%
Standard Deviation	1%	0.7%
<b>SVT-HEVC - 10 - Bosphorus 1080p (FPS)</b>	<b>480.50</b>	<b>478.08</b>
Normalized	100%	99.5%
Standard Deviation	7.8%	8%
<b>SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)</b>	<b>274.08</b>	<b>251.78</b>
Normalized	100%	91.86%
Standard Deviation	15.2%	5.3%
<b>SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)</b>	<b>252.38</b>	<b>248.30</b>
Normalized	100%	98.38%
Standard Deviation	2.2%	0.7%
<b>SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)</b>	<b>240.01</b>	<b>238.48</b>
Normalized	100%	99.36%
Standard Deviation	0.7%	1.9%
<b>Intel Open Image Denoise -</b>	<b>0.95</b>	<b>0.95</b>
RT.hdr_alb_nrm.3840x2160 (Images / Sec)		
Standard Deviation	0.2%	0.2%
<b>Intel Open Image Denoise - RT.Idr_alb_nrm.3840x2160 (Images / Sec)</b>	<b>0.95</b>	<b>0.96</b>
Normalized	98.96%	100%
Standard Deviation	0.4%	0.4%
<b>Intel Open Image Denoise -</b>	<b>0.47</b>	<b>0.48</b>
RTLightmap.hdr.4096x4096 (Images / Sec)		
Normalized	97.92%	100%
Standard Deviation	1.1%	0.4%
<b>OpenVKL - vklBenchmark (Items / Sec)</b>	<b>300</b>	<b>291</b>
Normalized	100%	97%
Standard Deviation	4.3%	4.5%
<b>OpenVKL - vklBenchmarkVdbVolume (Items / Sec)</b>	<b>16681805</b>	<b>17308328</b>
Normalized	96.38%	100%
Standard Deviation	1.7%	2.5%
<b>OpenVKL - vklBenchmarkStructuredVolume (Items / Sec)</b>	<b>75601852</b>	<b>80062311</b>
Normalized	94.43%	100%
Standard Deviation	2.5%	3.5%
<b>OpenVKL - vklBenchmarkUnstructuredVolume (Items / Sec)</b>	<b>1792476</b>	<b>1789270</b>
Normalized	100%	99.82%
Standard Deviation	0.2%	0.3%
<b>libavif avifenc - 0 (sec)</b>	<b>50.124</b>	<b>50.253</b>
Normalized	100%	99.74%
Standard Deviation	0.2%	0.2%
<b>libavif avifenc - 2 (sec)</b>	<b>27.520</b>	<b>27.550</b>
Normalized	100%	99.89%
Standard Deviation	0.1%	1.9%
<b>libavif avifenc - 6 (sec)</b>	<b>10.933</b>	<b>10.840</b>
Normalized	99.15%	100%
Standard Deviation	2%	1.9%
<b>libavif avifenc - 10 (sec)</b>	<b>3.757</b>	<b>3.857</b>
Normalized	100%	97.41%
Standard Deviation	3%	1.2%

<b>libavif avifenc - 6, Lossless (sec)</b>	<b>30.348</b>	<b>30.515</b>
Normalized	100%	99.45%
Standard Deviation	1.5%	0.9%
<b>libavif avifenc - 10, Lossless (sec)</b>	<b>6.354</b>	<b>6.305</b>
Normalized	99.23%	100%
Standard Deviation	2.2%	2.7%
<b>Timed FFmpeg Compilation - Time To Compile (sec)</b>	<b>22.021</b>	<b>22.014</b>
Normalized	99.97%	100%
Standard Deviation	0.2%	0.4%
<b>Timed GDB GNU Debugger Compilation - Time To Compile (sec)</b>	<b>40.427</b>	<b>40.570</b>
Normalized	100%	99.65%
Standard Deviation	0.5%	0.3%
<b>Timed Godot Game Engine Compilation - Time To Compile (sec)</b>	<b>54.427</b>	<b>54.431</b>
Normalized	100%	99.99%
Standard Deviation	0.7%	0.3%
<b>Timed Linux Kernel Compilation - Time To Compile</b>	<b>31.793</b>	<b>31.822</b>
Normalized	100%	99.91%
Standard Deviation	2.2%	2.3%
<b>Timed LLVM Compilation - Ninja (sec)</b>	<b>209.155</b>	<b>207.719</b>
Normalized	99.31%	100%
Standard Deviation	0.7%	0.4%
<b>Timed LLVM Compilation - Unix Makefiles (sec)</b>	<b>253.624</b>	<b>251.473</b>
Normalized	99.15%	100%
Standard Deviation	1.2%	0.9%
<b>Timed Mesa Compilation - Time To Compile (sec)</b>	<b>20.894</b>	<b>20.918</b>
Normalized	100%	99.89%
Standard Deviation	0.8%	0.8%
<b>Timed Node.js Compilation - Time To Compile (sec)</b>	<b>139.812</b>	<b>139.656</b>
Normalized	99.89%	100%
Standard Deviation	0.4%	0.2%
<b>Google SynthMark - VoiceMark_100 (Voices)</b>	<b>820.855</b>	<b>819.662</b>
Normalized	100%	99.85%
Standard Deviation	0.1%	0.1%
<b>SecureMark - SecureMark-TLS (marks)</b>	<b>249608</b>	<b>252200</b>
Normalized	98.97%	100%
Standard Deviation	1.2%	0%
<b>GROMACS - MPI CPU - water_GMX50_bare (Ns/Day)</b>	<b>3.658</b>	<b>3.675</b>
Normalized	99.54%	100%
Standard Deviation	0.5%	0.3%
<b>ASTC Encoder - Medium (sec)</b>	<b>4.1204</b>	<b>4.1136</b>
Normalized	99.83%	100%
Standard Deviation	0.3%	0%
<b>ASTC Encoder - Thorough (sec)</b>	<b>6.9969</b>	<b>7.0010</b>
Normalized	100%	99.94%
Standard Deviation	0.1%	0.3%
<b>ASTC Encoder - Exhaustive (sec)</b>	<b>23.5757</b>	<b>23.5825</b>
Normalized	100%	99.97%
Standard Deviation	0.1%	0.1%
<b>KTX-Software toktx - UASTC 3 (sec)</b>	<b>5.575</b>	<b>5.553</b>
Normalized	99.61%	100%
Standard Deviation	0.5%	0.2%
<b>KTX-Software toktx - Zstd Compression 9 (sec)</b>	<b>2.807</b>	<b>2.782</b>
Normalized	99.11%	100%

	Standard Deviation	1.6%	0.3%
<b>KTX-Software toktx - Z.C.1 (sec)</b>	<b>Normalized</b>	<b>19.123</b>	<b>18.851</b>
	Standard Deviation	0.3%	1.5%
<b>KTX-Software toktx - U.3.Z.C.1 (sec)</b>	<b>Normalized</b>	<b>10.895</b>	<b>10.894</b>
	Standard Deviation	1.2%	1.8%
<b>KTX-Software toktx - U.4.Z.C.1 (sec)</b>	<b>Normalized</b>	<b>103.961</b>	<b>103.988</b>
	Standard Deviation	0.1%	0.1%
<b>Google Draco - Lion (ms)</b>	<b>Normalized</b>	<b>5182</b>	<b>5191</b>
	Standard Deviation	3.1%	4%
<b>Google Draco - Church Facade (ms)</b>	<b>Normalized</b>	<b>6688</b>	<b>6745</b>
	Standard Deviation	0.3%	2.2%
<b>Mobile Neural Network - mobilenetV3 (ms)</b>	<b>Normalized</b>	<b>2.406</b>	<b>2.391</b>
	Standard Deviation	0.8%	4.3%
<b>Mobile Neural Network - squeezenetv1.1 (ms)</b>	<b>Normalized</b>	<b>4.290</b>	<b>4.186</b>
	Standard Deviation	2%	3.4%
<b>Mobile Neural Network - resnet-v2-50 (ms)</b>	<b>Normalized</b>	<b>21.190</b>	<b>21.272</b>
	Standard Deviation	1.7%	2.4%
<b>Mobile Neural Network - SqueezeNetV1.0 (ms)</b>	<b>Normalized</b>	<b>6.777</b>	<b>6.672</b>
	Standard Deviation	2%	3.6%
<b>Mobile Neural Network - MobileNetV2_224 (ms)</b>	<b>Normalized</b>	<b>3.734</b>	<b>3.670</b>
	Standard Deviation	1.5%	3%
<b>Mobile Neural Network - mobilenet-v1-1.0 (ms)</b>	<b>Normalized</b>	<b>3.269</b>	<b>3.390</b>
	Standard Deviation	9.8%	7.5%
<b>Mobile Neural Network - inception-v3 (ms)</b>	<b>Normalized</b>	<b>26.508</b>	<b>25.483</b>
	Standard Deviation	9.1%	2.9%
<b>NCNN - CPU - mobilenet (ms)</b>	<b>Normalized</b>	<b>19.43</b>	<b>20.00</b>
	Standard Deviation	1%	1.8%
<b>NCNN - CPU-v2-v2 - mobilenet-v2 (ms)</b>	<b>Normalized</b>	<b>9.08</b>	<b>8.70</b>
	Standard Deviation	7.1%	6.3%
<b>NCNN - CPU-v3-v3 - mobilenet-v3 (ms)</b>	<b>Normalized</b>	<b>8.62</b>	<b>9.91</b>
	Standard Deviation	3%	3.7%
<b>NCNN - CPU - shufflenet-v2 (ms)</b>	<b>Normalized</b>	<b>8.28</b>	<b>8.41</b>
	Standard Deviation	1.6%	0.9%
<b>NCNN - CPU - mnasnet (ms)</b>	<b>Normalized</b>	<b>7.70</b>	<b>7.92</b>
	Standard Deviation	3.4%	1.8%
<b>NCNN - CPU - efficientnet-b0 (ms)</b>	<b>Normalized</b>	<b>10.47</b>	<b>10.34</b>
	Standard Deviation	3.9%	1.9%

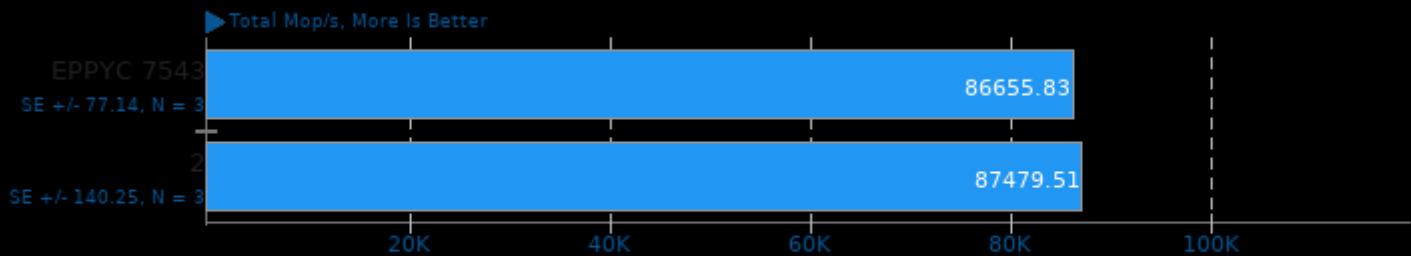
<b>NCNN - CPU - blazeface (ms)</b>	<b>3.84</b>	<b>3.82</b>
Normalized	99.48%	100%
Standard Deviation	1.7%	3.2%
<b>NCNN - CPU - googlenet (ms)</b>	<b>17.90</b>	<b>18.74</b>
Normalized	100%	95.52%
Standard Deviation	6.3%	2.7%
<b>NCNN - CPU - vgg16 (ms)</b>	<b>61.56</b>	<b>64.74</b>
Normalized	100%	95.09%
Standard Deviation	6.5%	7.8%
<b>NCNN - CPU - resnet18 (ms)</b>	<b>14.16</b>	<b>13.76</b>
Normalized	97.18%	100%
Standard Deviation	1.8%	1.2%
<b>NCNN - CPU - alexnet (ms)</b>	<b>9.84</b>	<b>9.59</b>
Normalized	97.46%	100%
Standard Deviation	2.2%	3.9%
<b>NCNN - CPU - resnet50 (ms)</b>	<b>28.80</b>	<b>26.95</b>
Normalized	93.58%	100%
Standard Deviation	15.9%	2.6%
<b>NCNN - CPU - yolov4-tiny (ms)</b>	<b>28.47</b>	<b>28.48</b>
Normalized	100%	99.96%
Standard Deviation	2.2%	7.2%
<b>NCNN - CPU - squeezenet_ssd (ms)</b>	<b>21.31</b>	<b>20.73</b>
Normalized	97.28%	100%
Standard Deviation	6.8%	2%
<b>NCNN - CPU - regnety_400m (ms)</b>	<b>21.39</b>	<b>21.85</b>
Normalized	100%	97.89%
Standard Deviation	1.6%	2.1%
<b>TNN - CPU - DenseNet (ms)</b>	<b>3094</b>	<b>3077</b>
Normalized	99.47%	100%
Standard Deviation	2.4%	1.3%
<b>TNN - CPU - MobileNet v2 (ms)</b>	<b>309.889</b>	<b>308.508</b>
Normalized	99.55%	100%
Standard Deviation	1.5%	2.5%
<b>TNN - CPU - SqueezeNet v2 (ms)</b>	<b>66.252</b>	<b>66.457</b>
Normalized	100%	99.69%
Standard Deviation	0.4%	0.8%
<b>TNN - CPU - SqueezeNet v1.1 (ms)</b>	<b>276.659</b>	<b>277.036</b>
Normalized	100%	99.86%
Standard Deviation	0%	0.1%
<b>Blender - BMW27 - CPU-Only (sec)</b>	<b>53.50</b>	<b>53.52</b>
Normalized	100%	99.96%
Standard Deviation	0.6%	0.2%
<b>Blender - Classroom - CPU-Only (sec)</b>	<b>147.72</b>	<b>148.29</b>
Normalized	100%	99.62%
Standard Deviation	0.2%	0.2%
<b>Blender - Fishy Cat - CPU-Only (sec)</b>	<b>70.16</b>	<b>70.18</b>
Normalized	100%	99.97%
Standard Deviation	0.6%	0.3%
<b>Blender - Barbershop - CPU-Only (sec)</b>	<b>197.71</b>	<b>197.93</b>
Normalized	100%	99.89%
Standard Deviation	0.2%	0.5%
<b>Blender - Pabellon Barcelona - CPU-Only (sec)</b>	<b>165.27</b>	<b>165.75</b>
Normalized	100%	99.71%
Standard Deviation	0.2%	0.1%
<b>BRL-CAD - V.P.M (VGR Performance Metric)</b>	<b>416402</b>	<b>416828</b>

Normalized 99.9%

100%

## NAS Parallel Benchmarks 3.4

Test / Class: BT.C

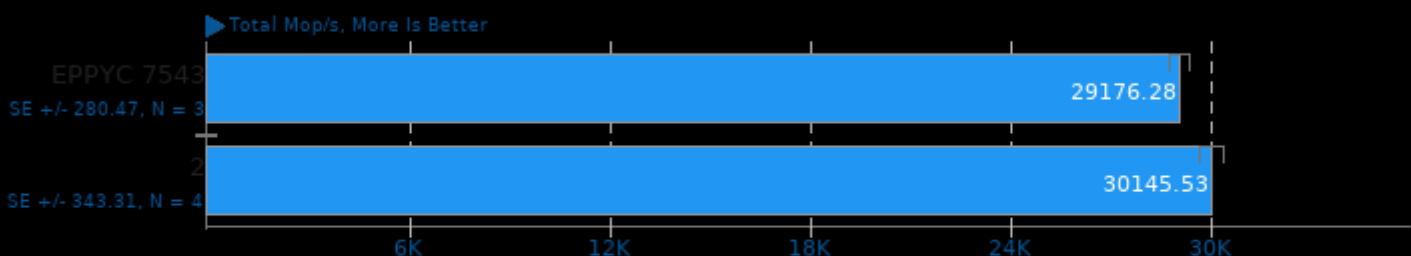


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: CG.C

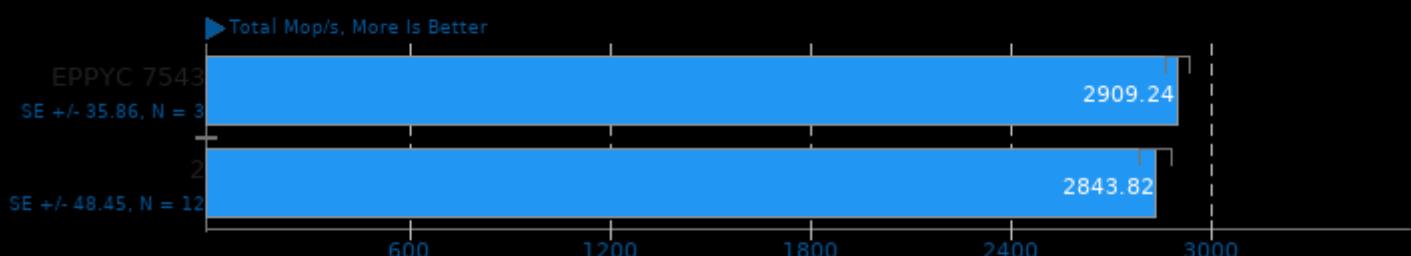


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen\_rte -lopen\_pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: EP.C

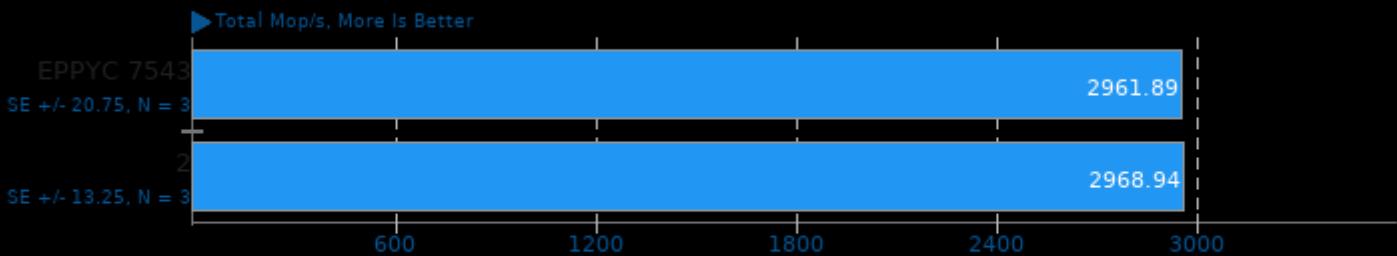


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen\_rte -lopen\_pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: EP.D

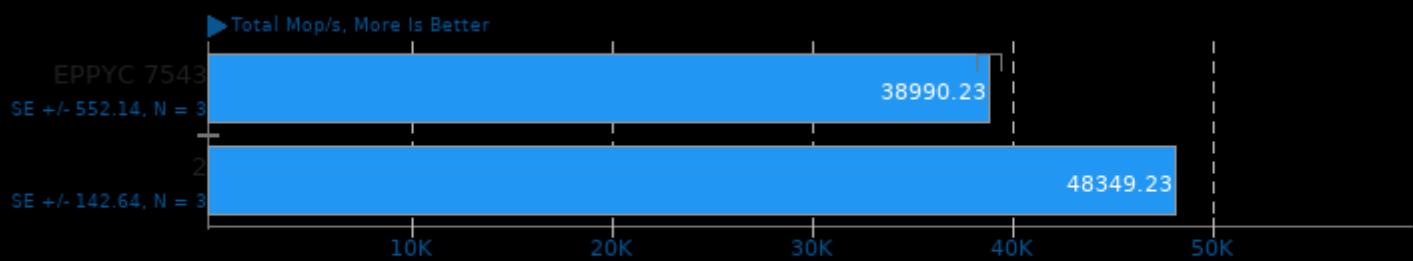


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: FT.C

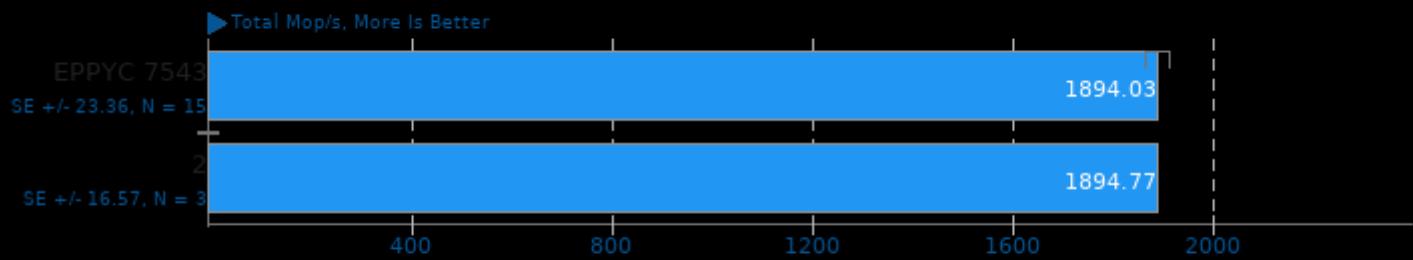


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: IS.D

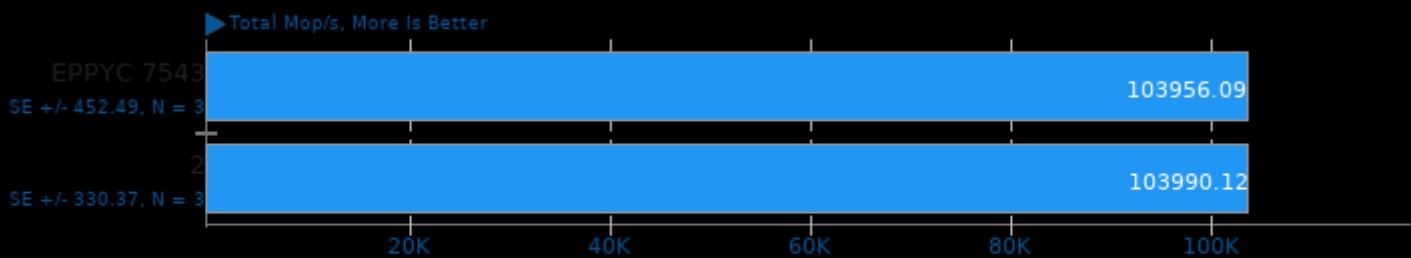


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: LU.C

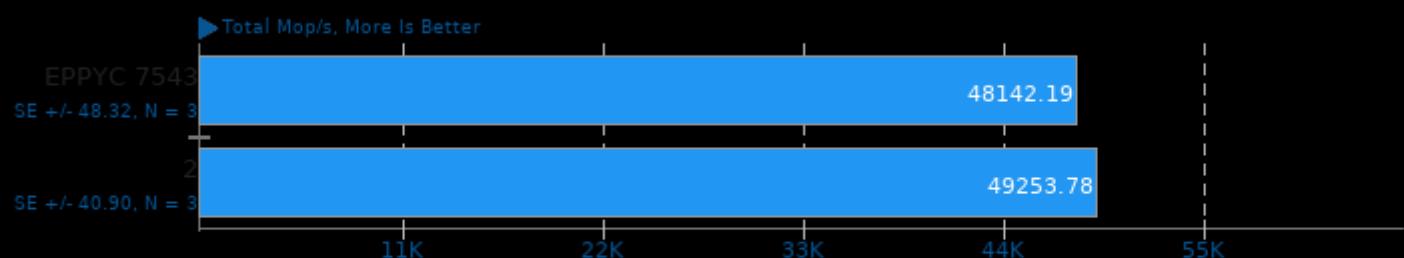


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: MG.C

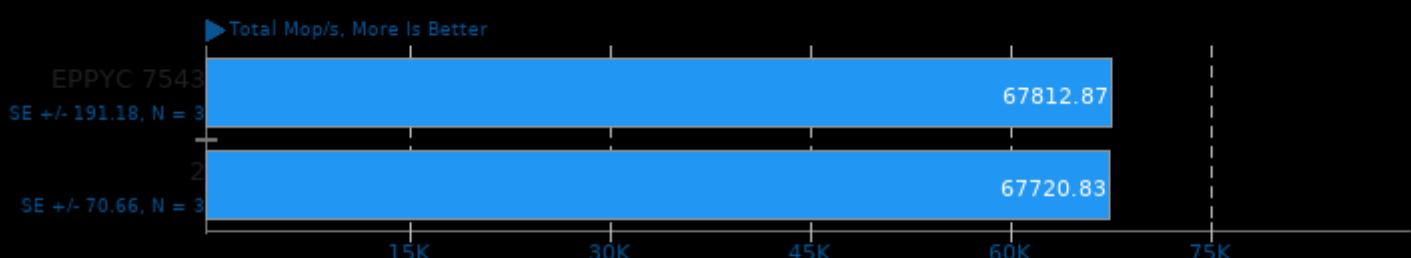


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: SP.B

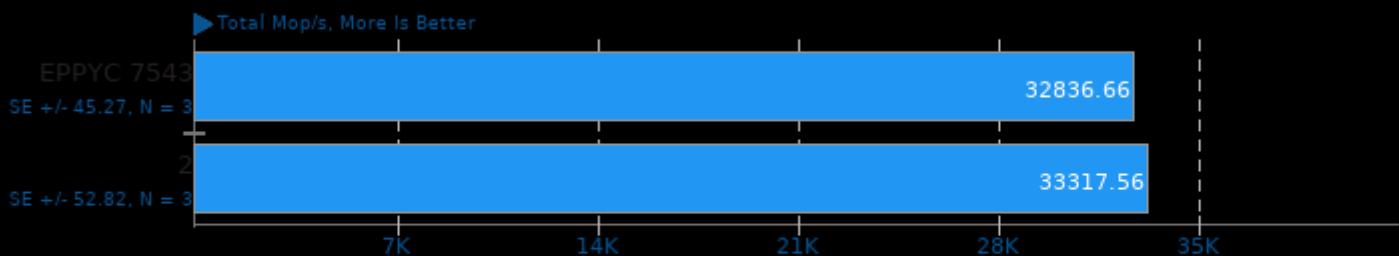


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

## NAS Parallel Benchmarks 3.4

Test / Class: SPC

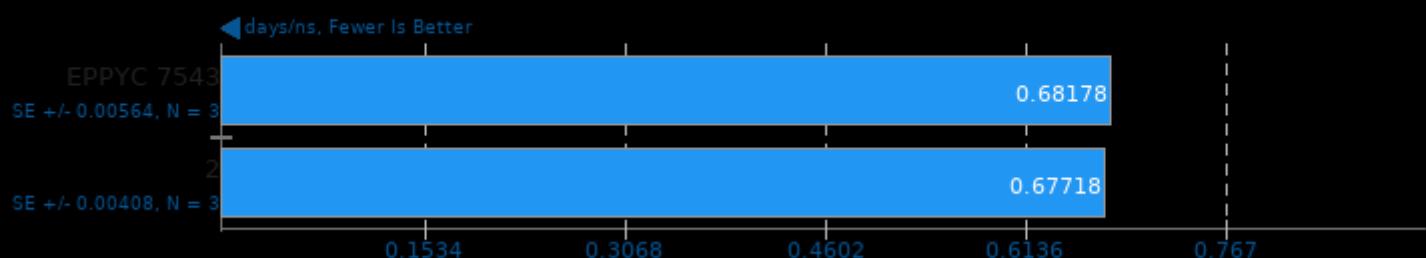


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopen-rte -lopen-pal -lhwloc -ldl -levent\_core -levent\_pthread

2. Open MPI 4.1.0

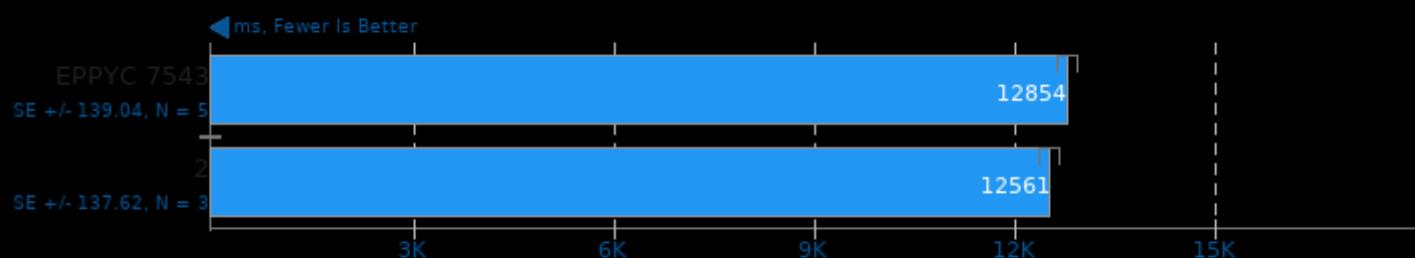
## NAMD 2.14

ATPase Simulation - 327,506 Atoms



## toyBrot Fractal Generator 2020-11-18

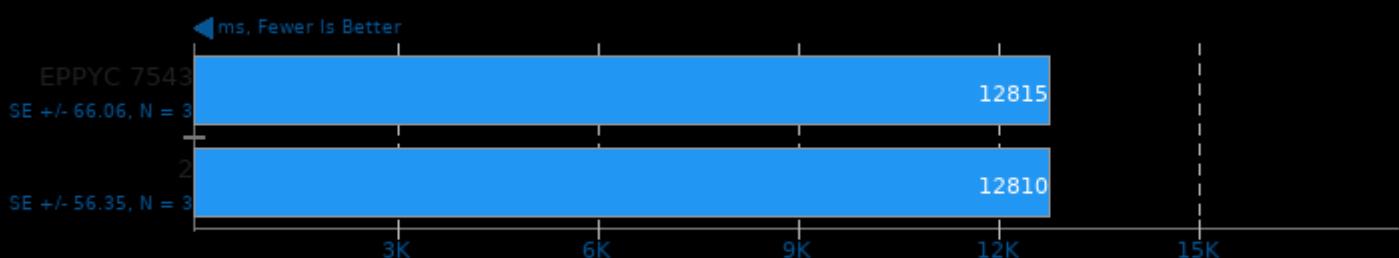
Implementation: TBB



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

## toyBrot Fractal Generator 2020-11-18

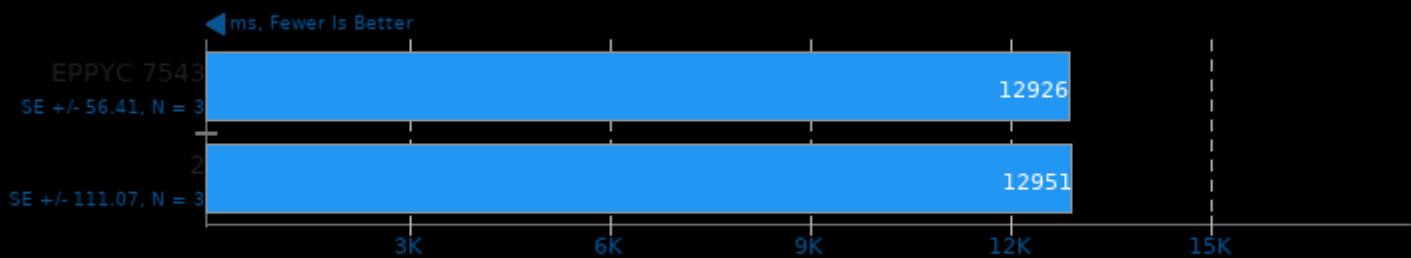
Implementation: OpenMP



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

## toyBrot Fractal Generator 2020-11-18

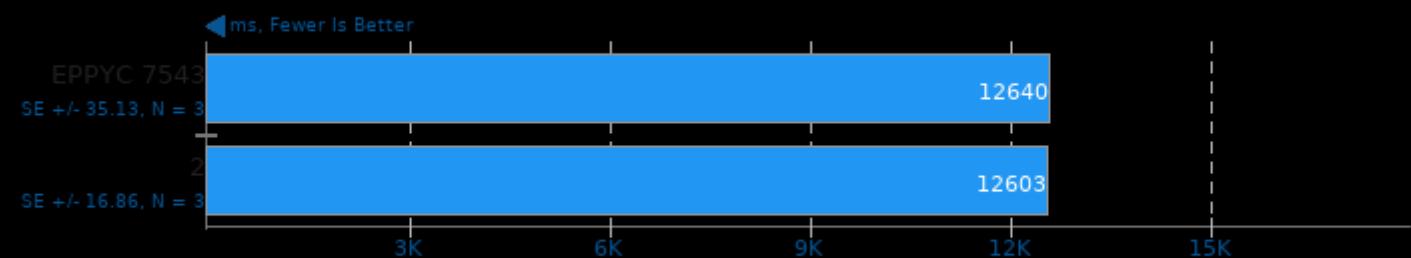
Implementation: C++ Tasks



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

## toyBrot Fractal Generator 2020-11-18

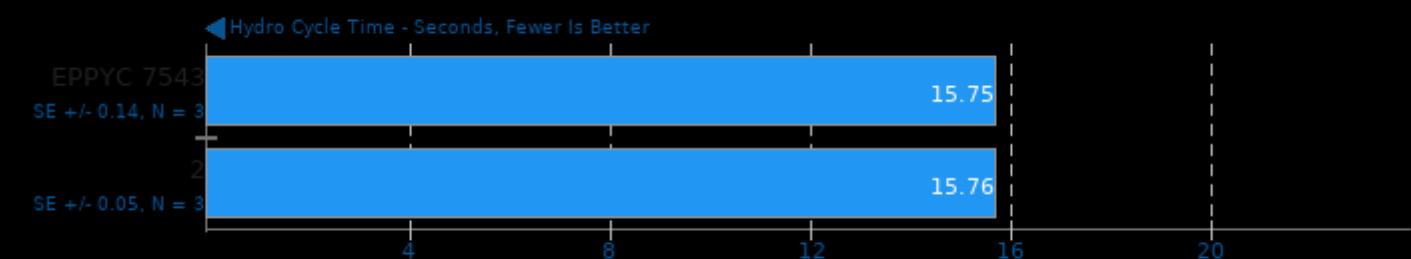
Implementation: C++ Threads



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

## Pennant 1.0.1

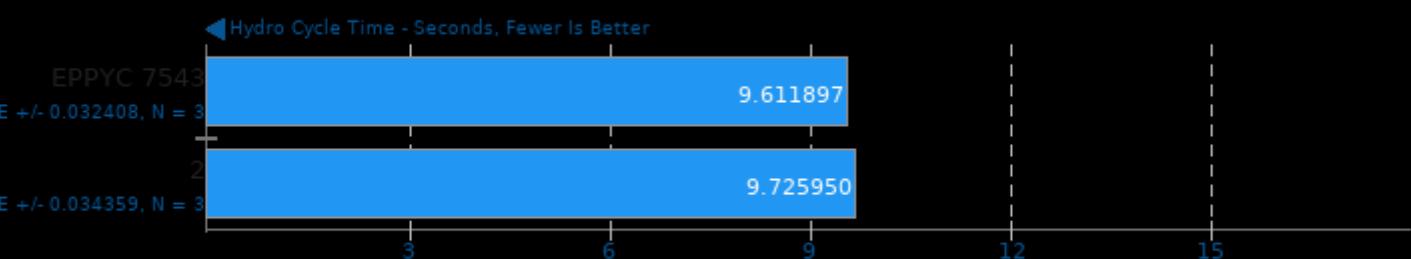
Test: sedovbig



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

## Pennant 1.0.1

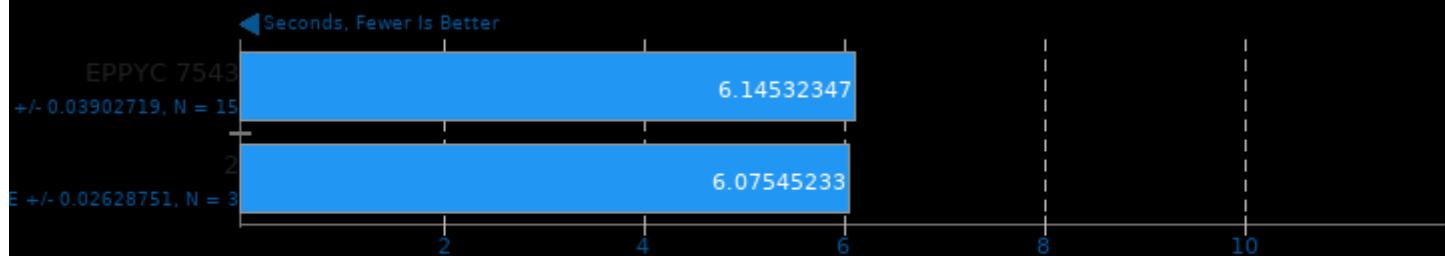
Test: leblancbig



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

## Xcompact3d Incompact3d 2021-03-11

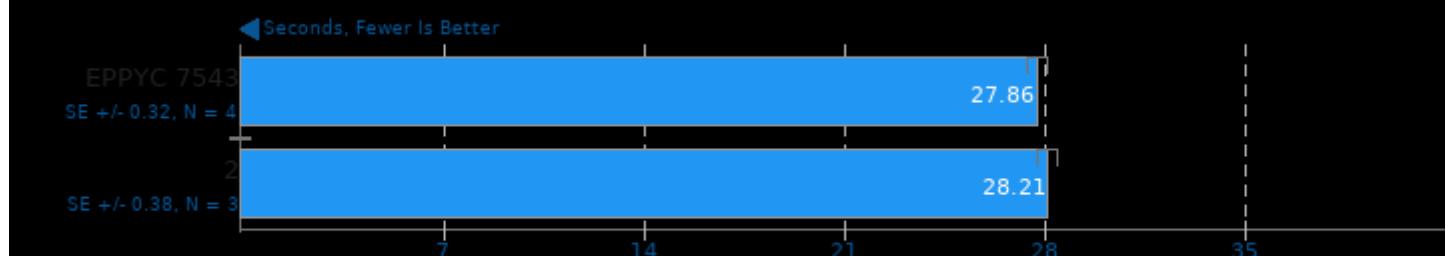
Input: input.i3d 129 Cells Per Direction



1. (F9X) gfortran options: -cpp -O2 -funroll-loops -floop-optimize -fcray-pointer -fbacktrace -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopenrte -lopen

## Xcompact3d Incompact3d 2021-03-11

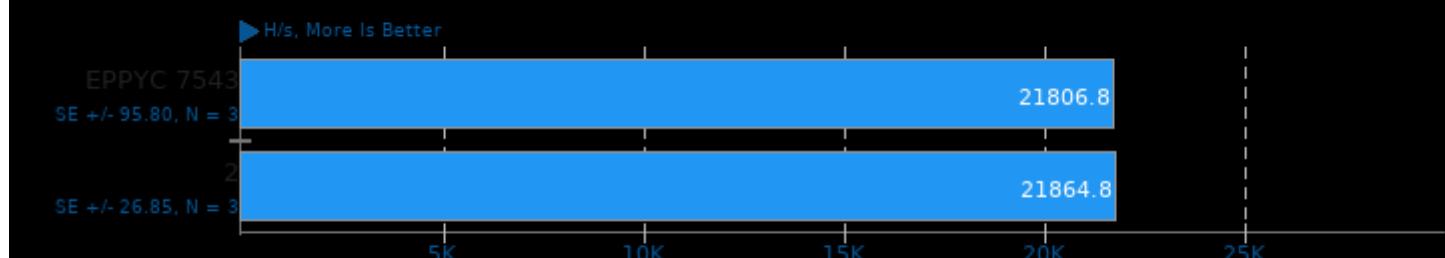
Input: input.i3d 193 Cells Per Direction



1. (F9X) gfortran options: -cpp -O2 -funroll-loops -floop-optimize -fcray-pointer -fbacktrace -pthread -lmpi\_usempif08 -lmpi\_mpifh -lmpi -lopenrte -lopen

## Xmrig 6.12.1

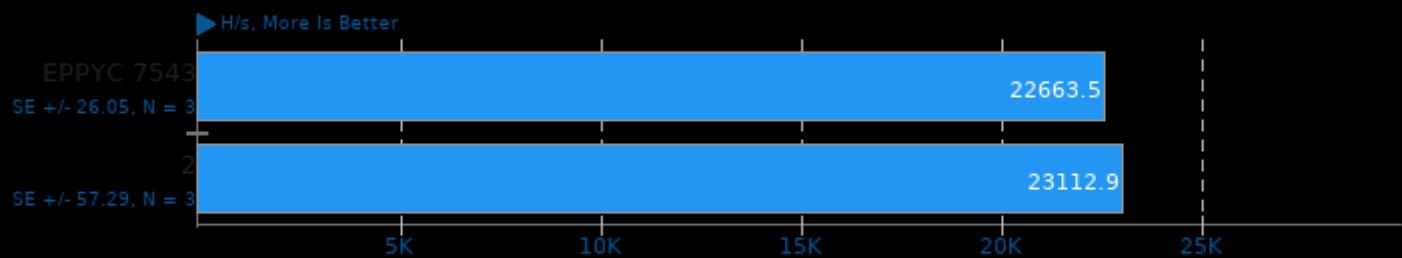
Variant: Monero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -pthread -lrt -ldl -lhwloc

## Xmrig 6.12.1

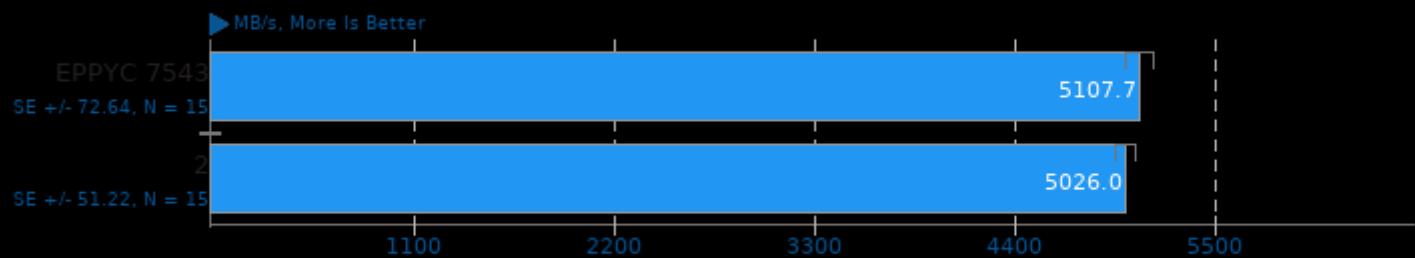
Variant: Wownero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

## Zstd Compression 1.5.0

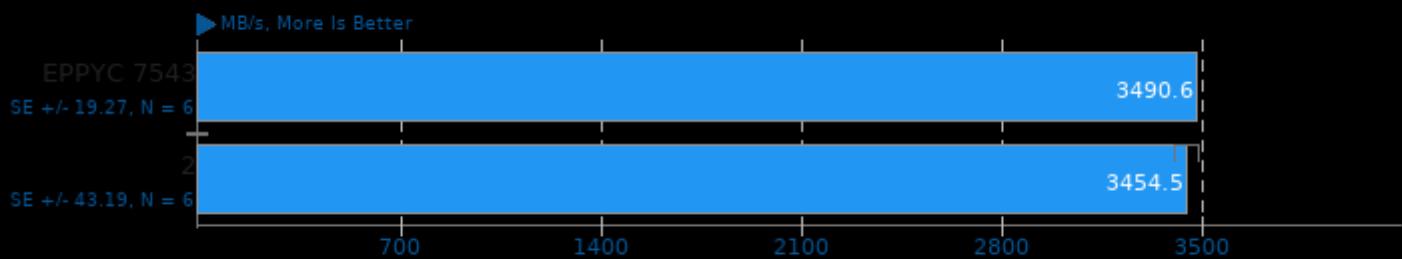
Compression Level: 3 - Compression Speed



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

## Zstd Compression 1.5.0

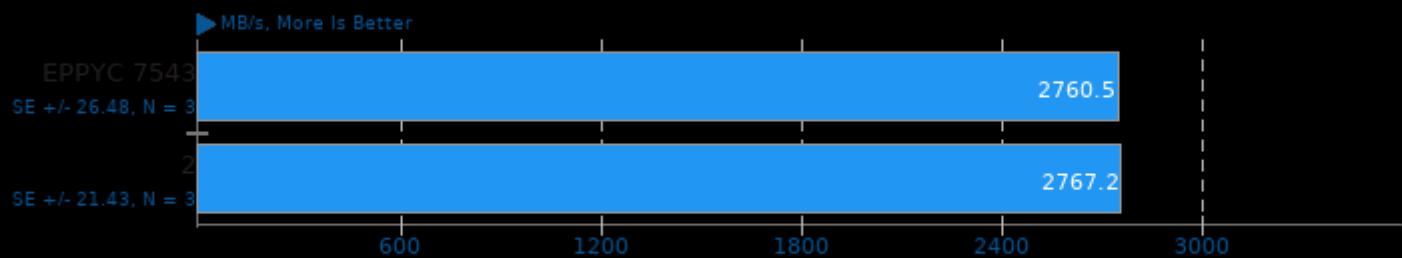
Compression Level: 3 - Decompression Speed



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

## Zstd Compression 1.5.0

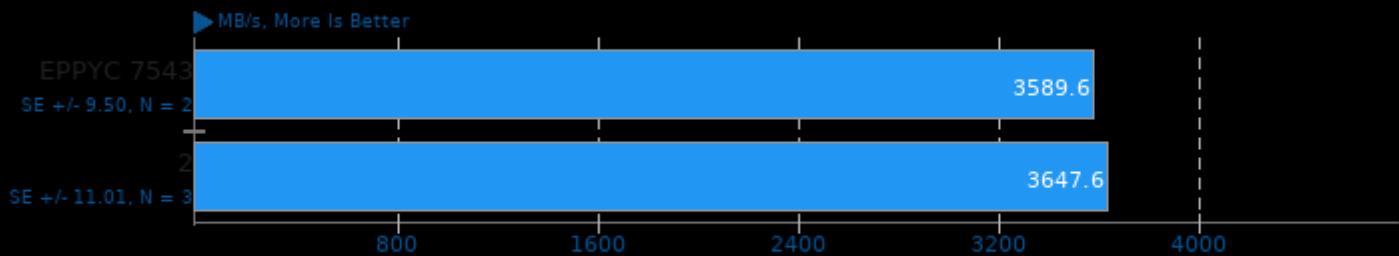
Compression Level: 8 - Compression Speed



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

## Zstd Compression 1.5.0

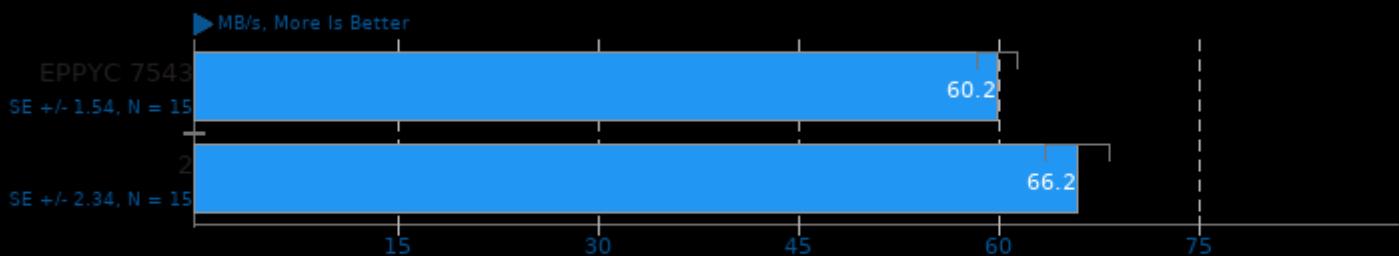
Compression Level: 8 - Decompression Speed



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

## Zstd Compression 1.5.0

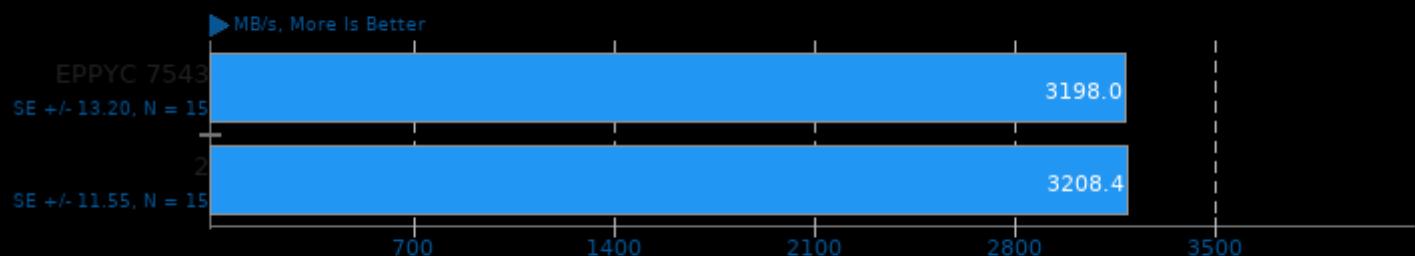
Compression Level: 19 - Compression Speed



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

## Zstd Compression 1.5.0

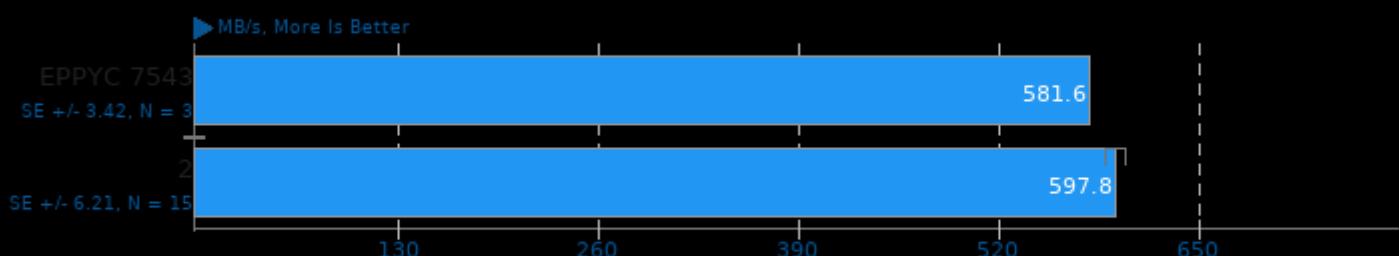
Compression Level: 19 - Decompression Speed



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

## Zstd Compression 1.5.0

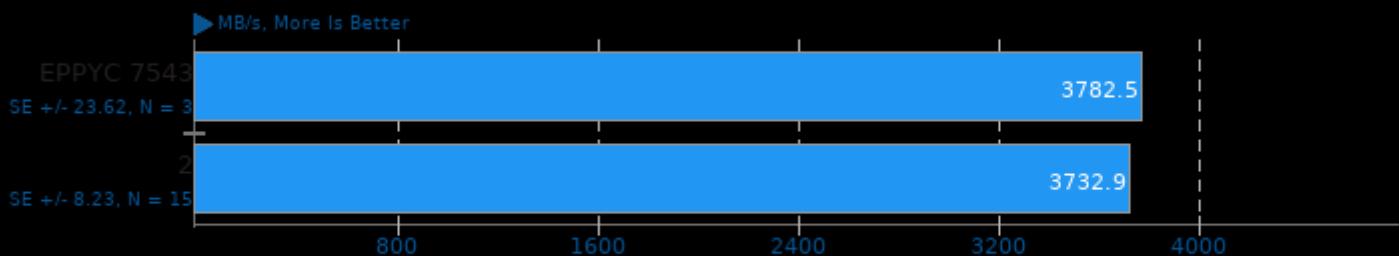
Compression Level: 3, Long Mode - Compression Speed



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

## Zstd Compression 1.5.0

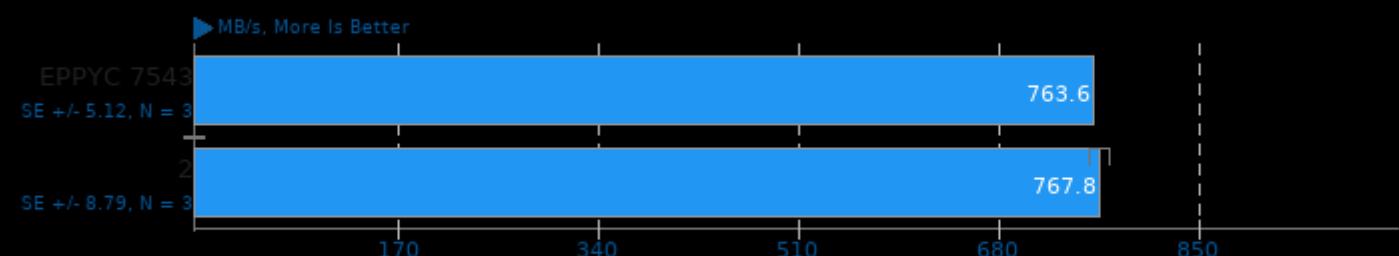
Compression Level: 3, Long Mode - Decompression Speed



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

## Zstd Compression 1.5.0

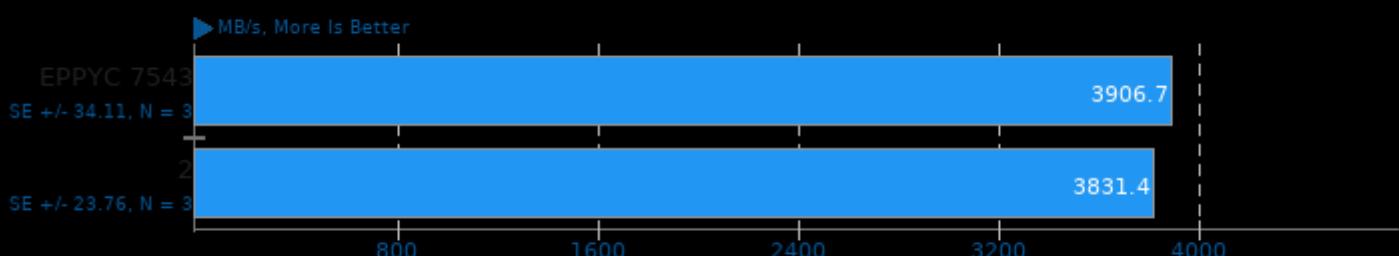
Compression Level: 8, Long Mode - Compression Speed



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

## Zstd Compression 1.5.0

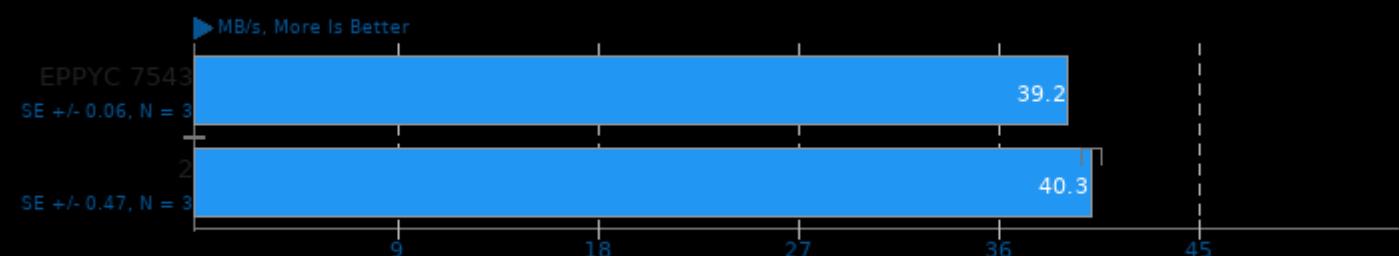
Compression Level: 8, Long Mode - Decompression Speed



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

## Zstd Compression 1.5.0

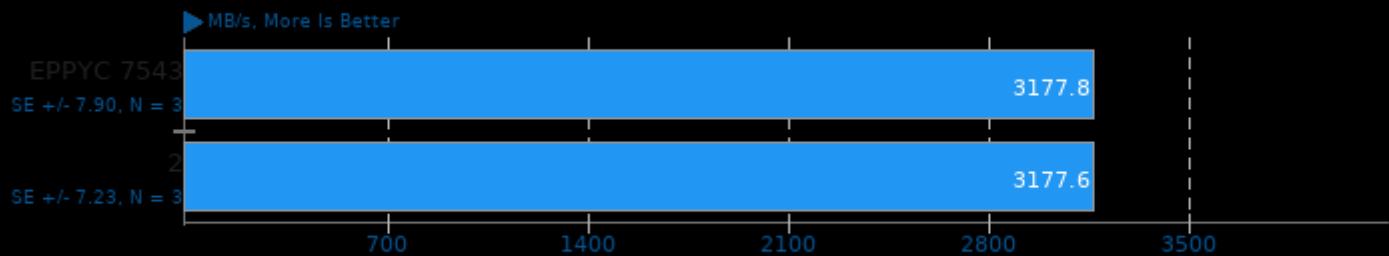
Compression Level: 19, Long Mode - Compression Speed



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

## Zstd Compression 1.5.0

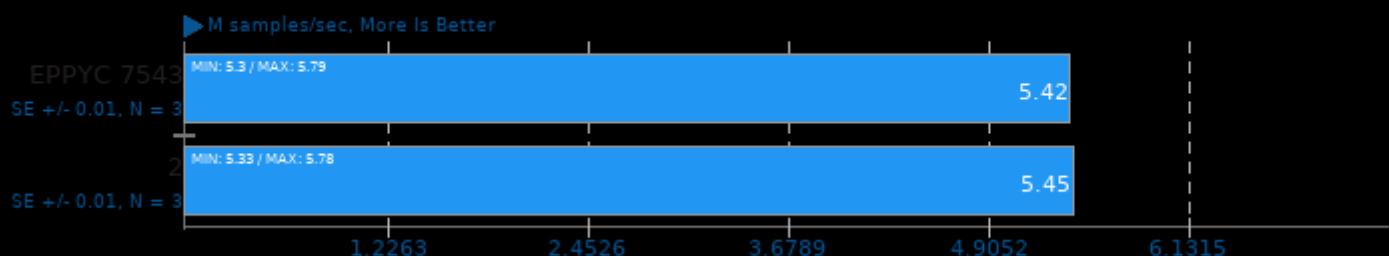
Compression Level: 19, Long Mode - Decompression Speed



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

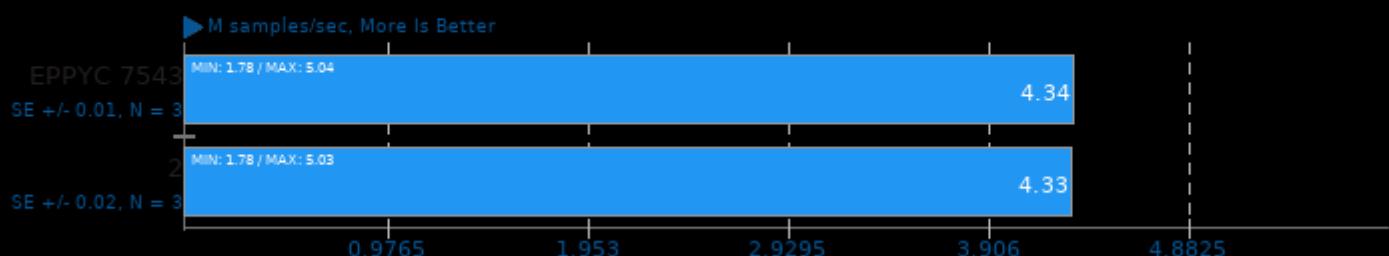
## LuxCoreRender 2.5

Scene: DLSC - Acceleration: CPU



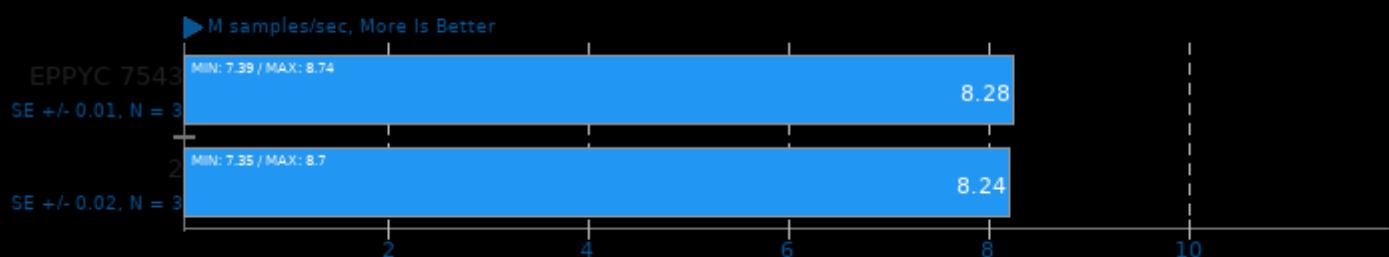
## LuxCoreRender 2.5

Scene: Danish Mood - Acceleration: CPU



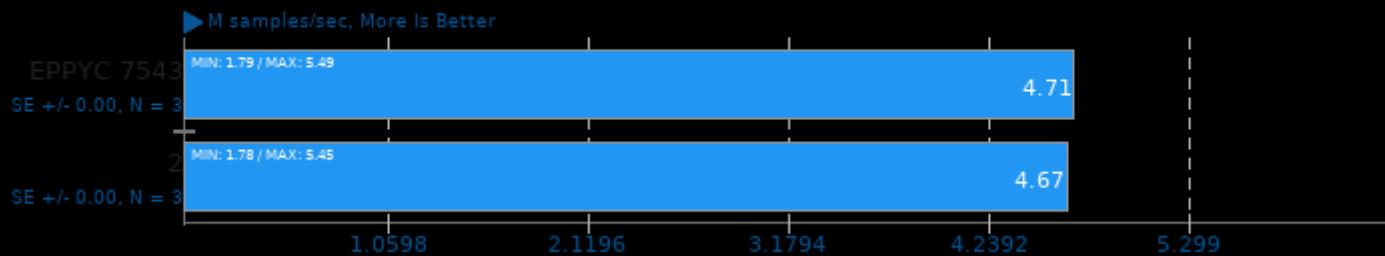
## LuxCoreRender 2.5

Scene: Orange Juice - Acceleration: CPU



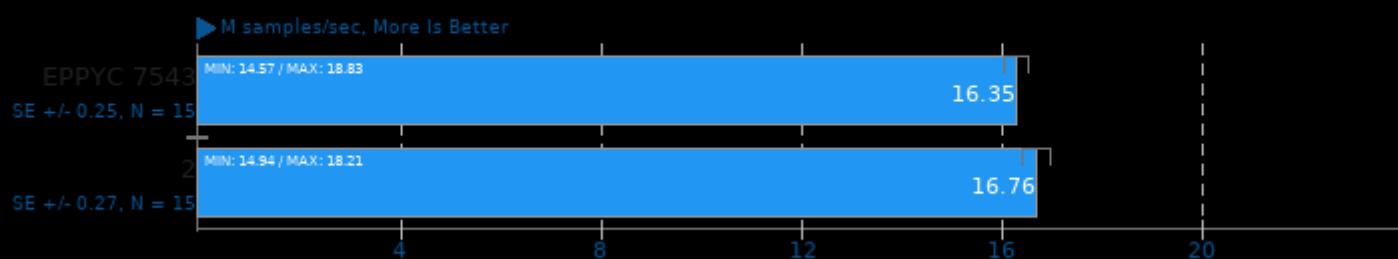
## LuxCoreRender 2.5

Scene: LuxCore Benchmark - Acceleration: CPU



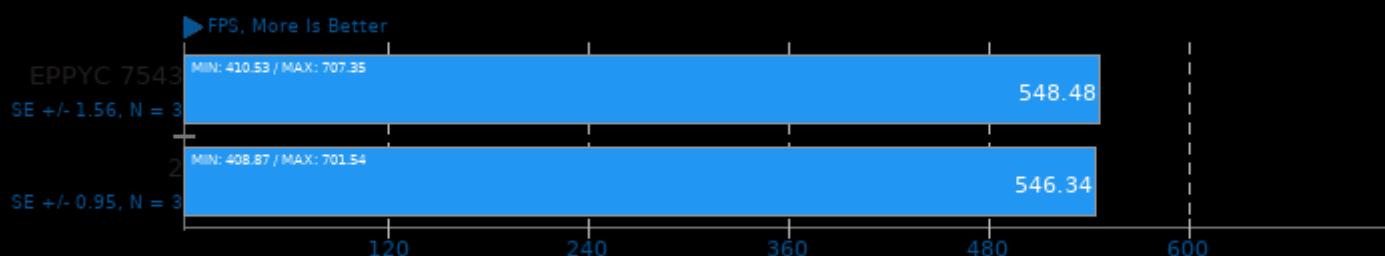
## LuxCoreRender 2.5

Scene: Rainbow Colors and Prism - Acceleration: CPU



## dav1d 0.9.0

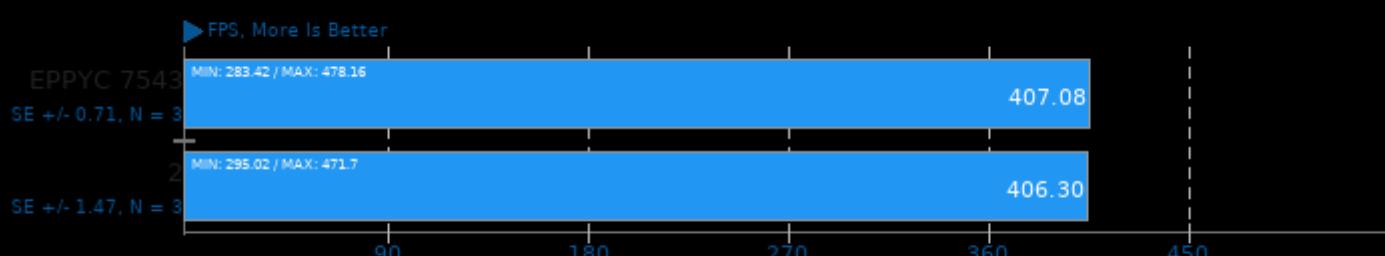
Video Input: Chimera 1080p



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

## dav1d 0.9.0

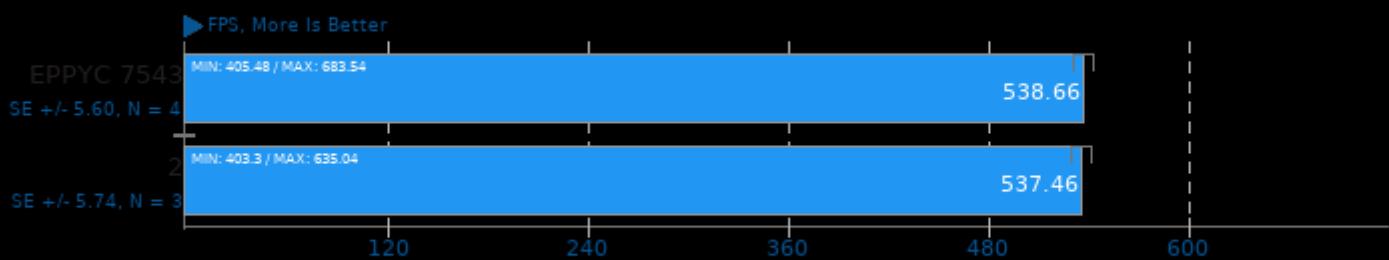
Video Input: Summer Nature 4K



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

## dav1d 0.9.0

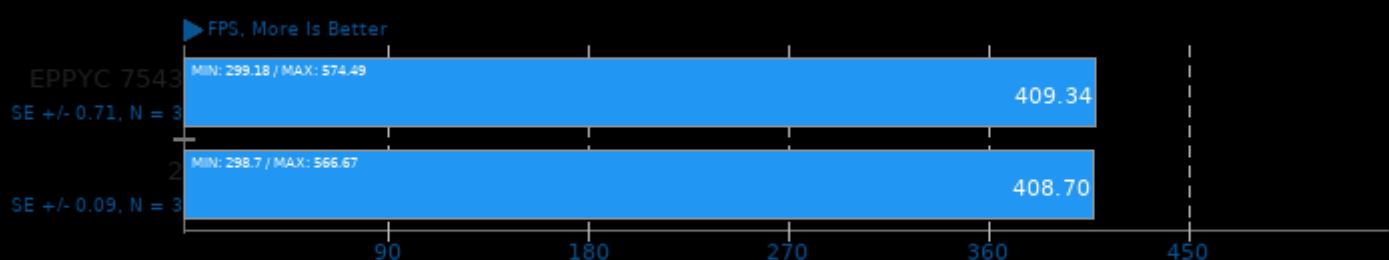
Video Input: Summer Nature 1080p



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

## dav1d 0.9.0

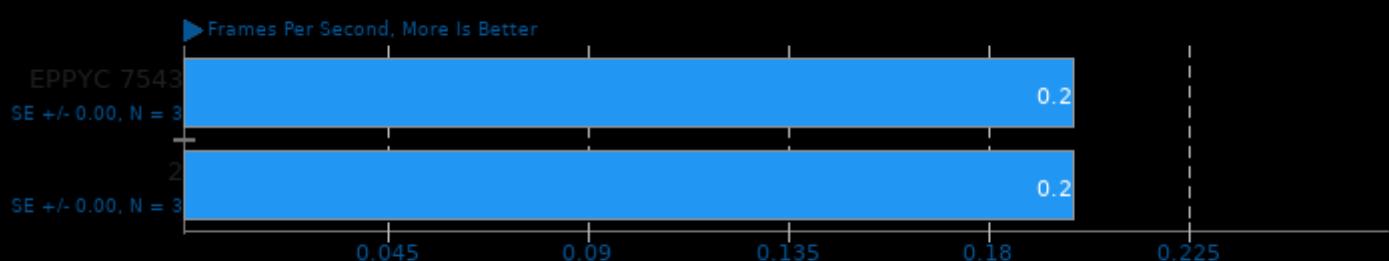
Video Input: Chimera 1080p 10-bit



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

## AOM AV1 3.1

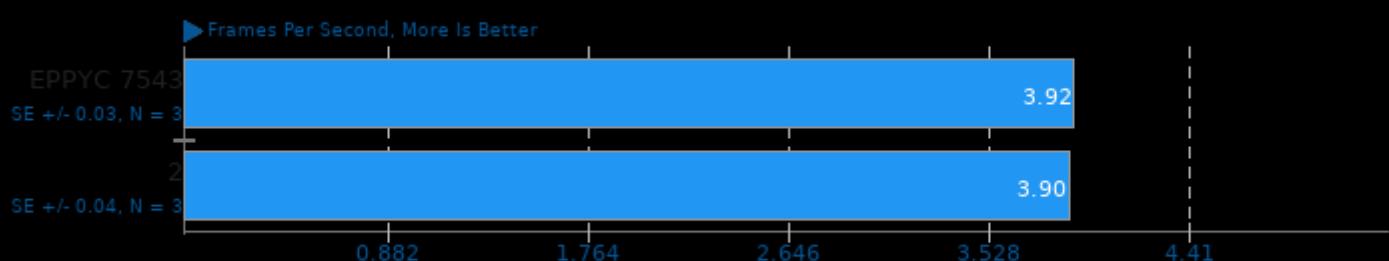
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

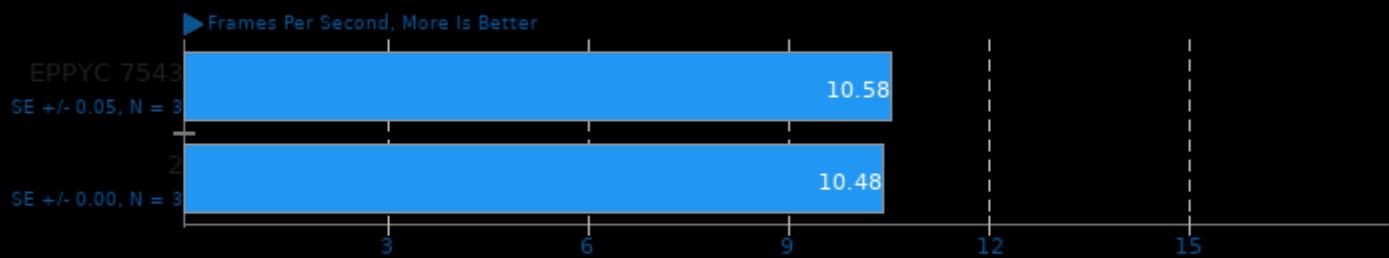
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

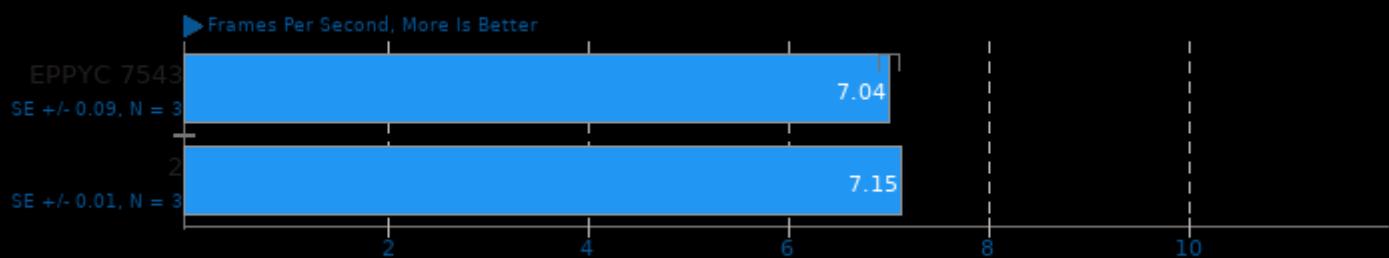
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

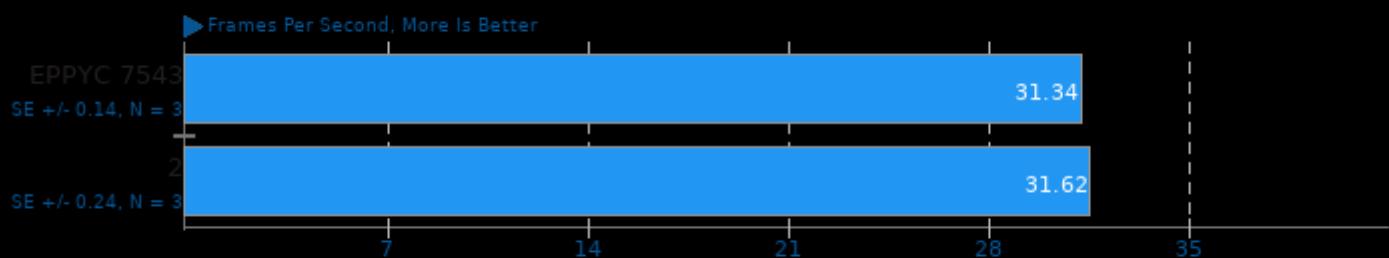
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

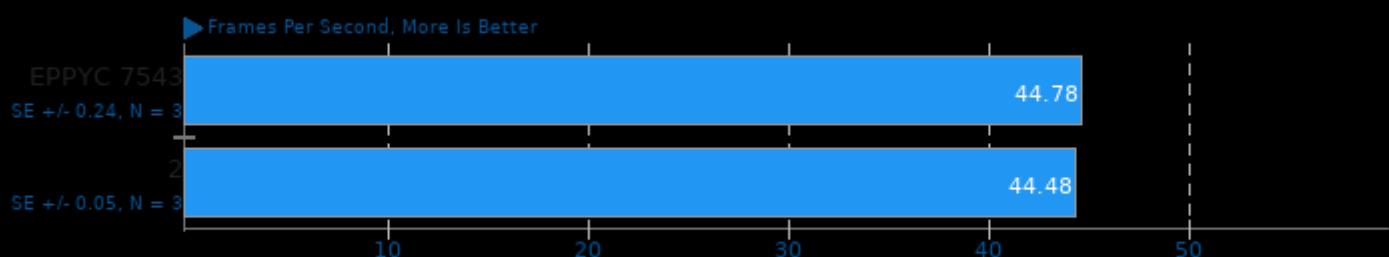
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

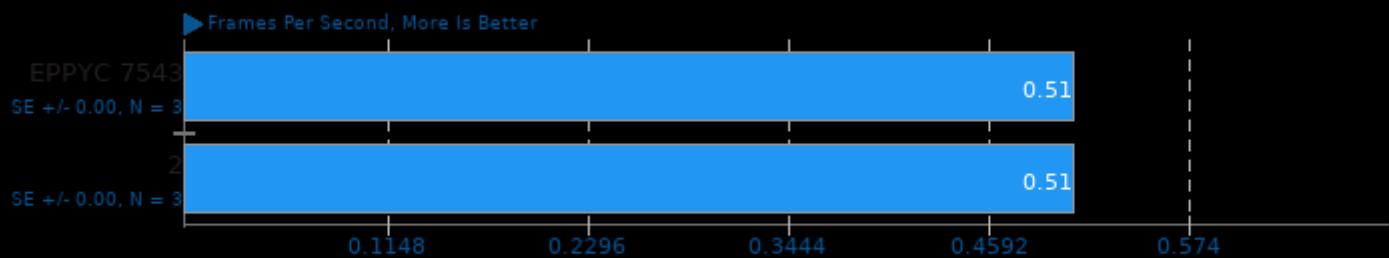
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

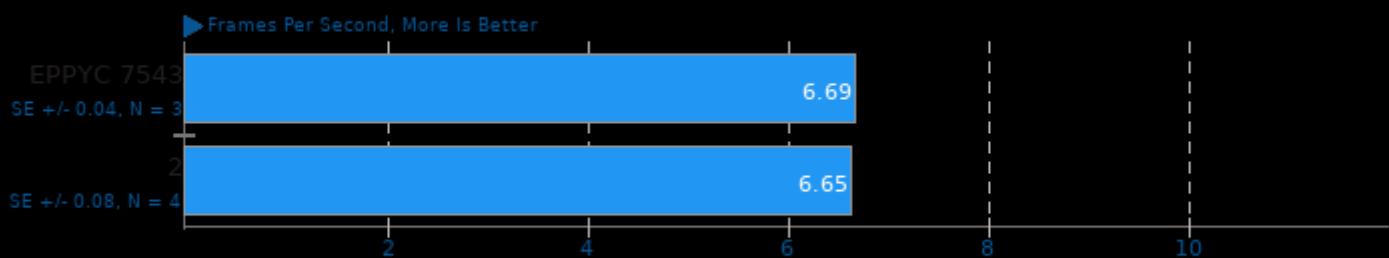
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

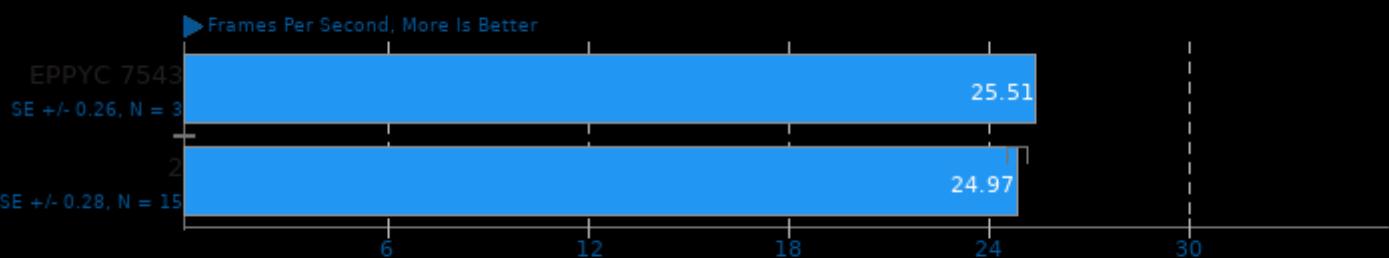
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

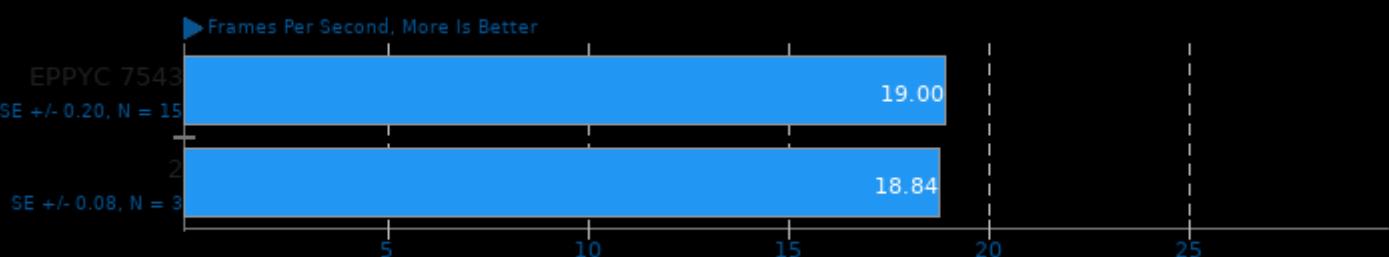
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

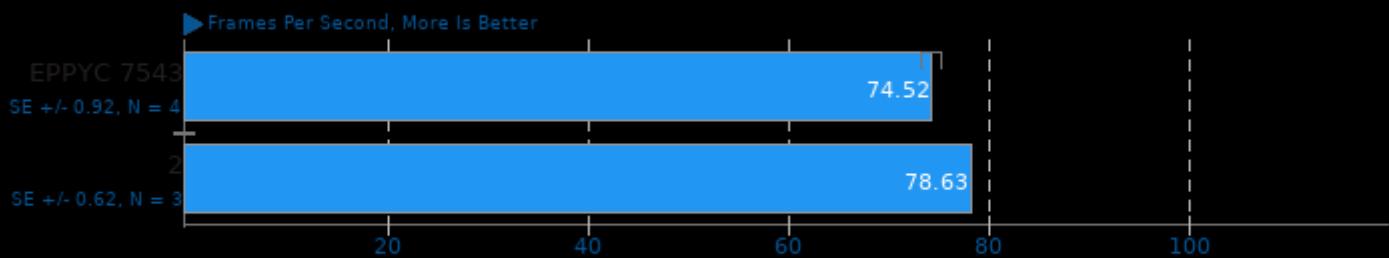
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

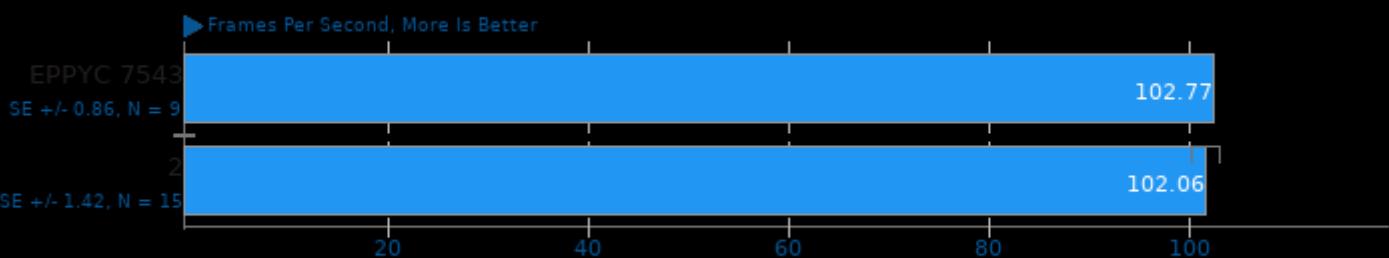
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

## AOM AV1 3.1

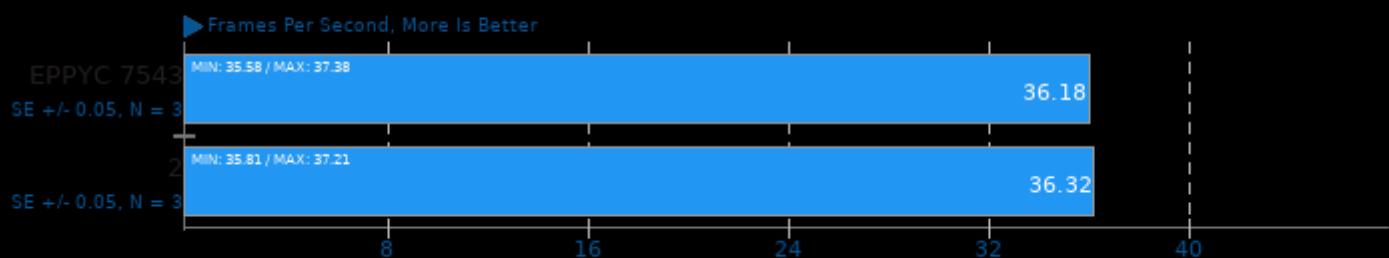
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm -lpthread

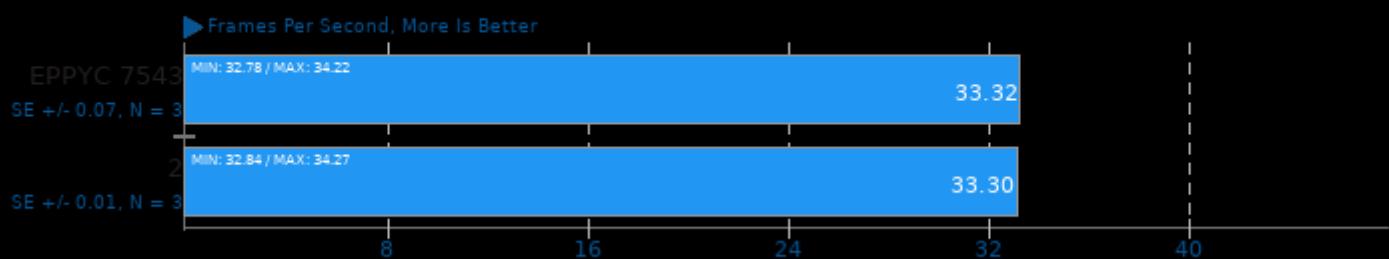
## Embree 3.13

Binary: Pathtracer - Model: Crown



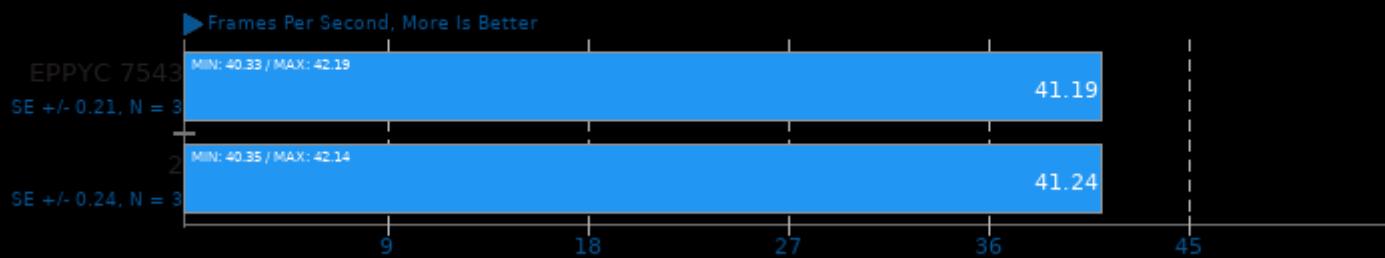
## Embree 3.13

Binary: Pathtracer ISPC - Model: Crown



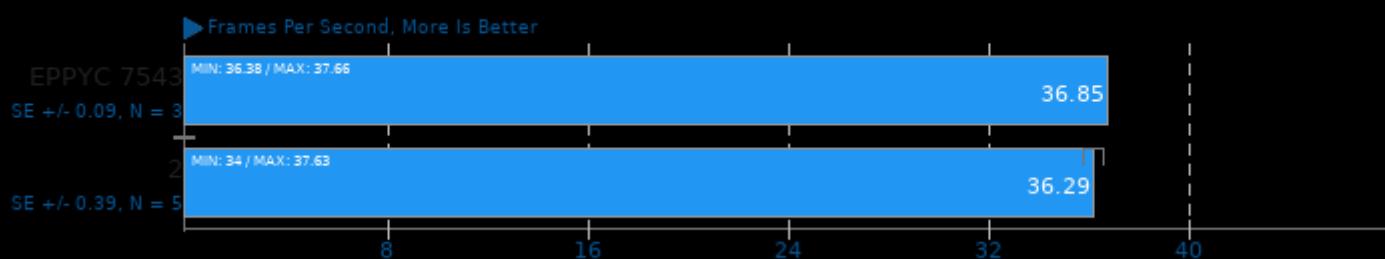
## Embree 3.13

Binary: Pathtracer - Model: Asian Dragon



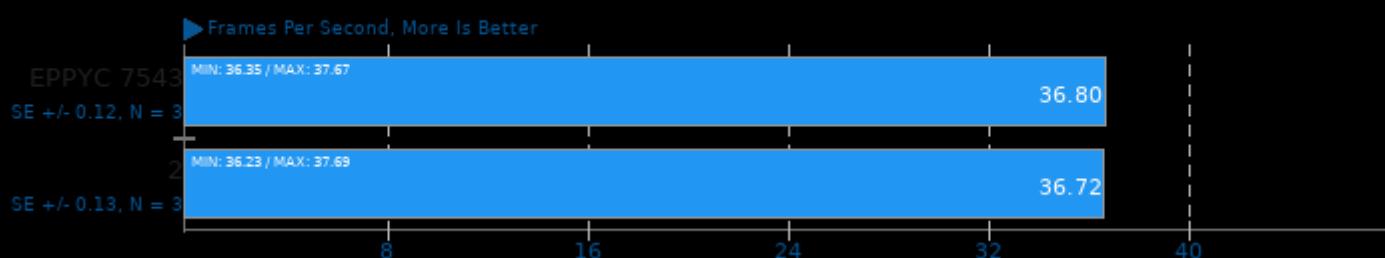
## Embree 3.13

Binary: Pathtracer - Model: Asian Dragon Obj



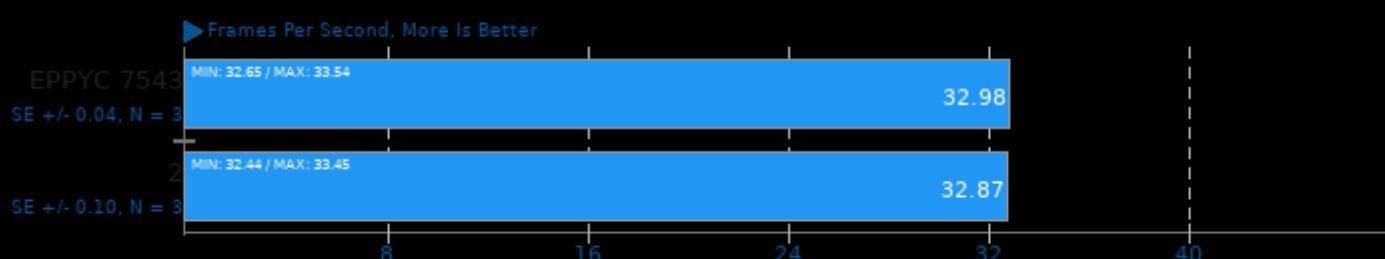
## Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon



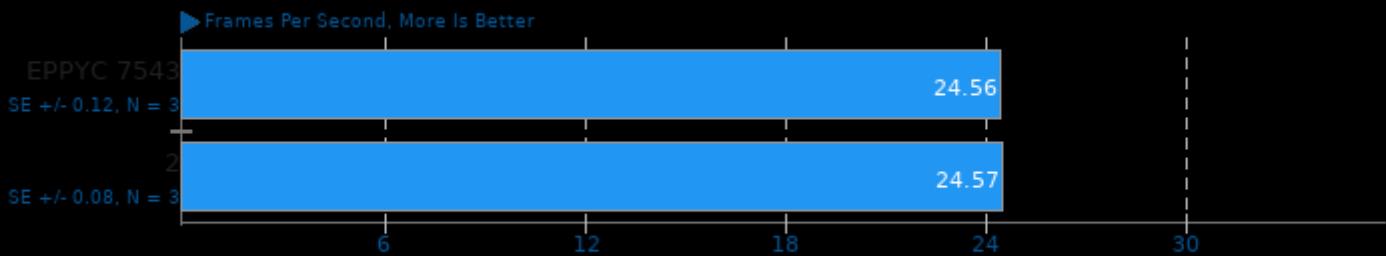
## Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon Obj



## SVT-HEVC 1.5.0

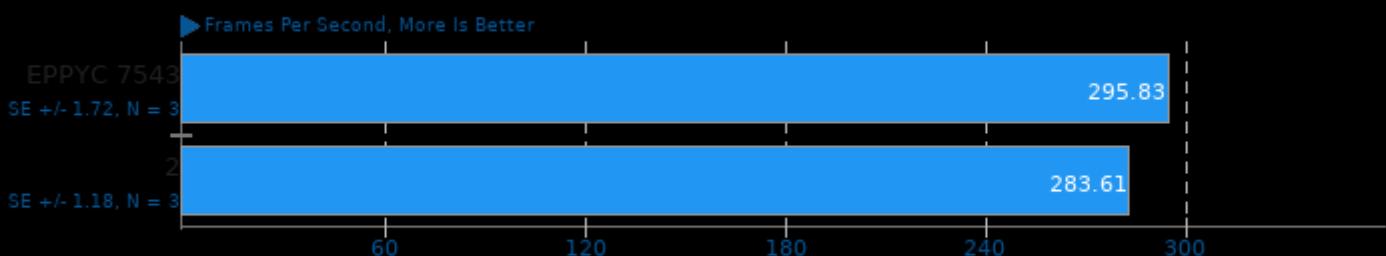
Tuning: 1 - Input: Bosphorus 1080p



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

## SVT-HEVC 1.5.0

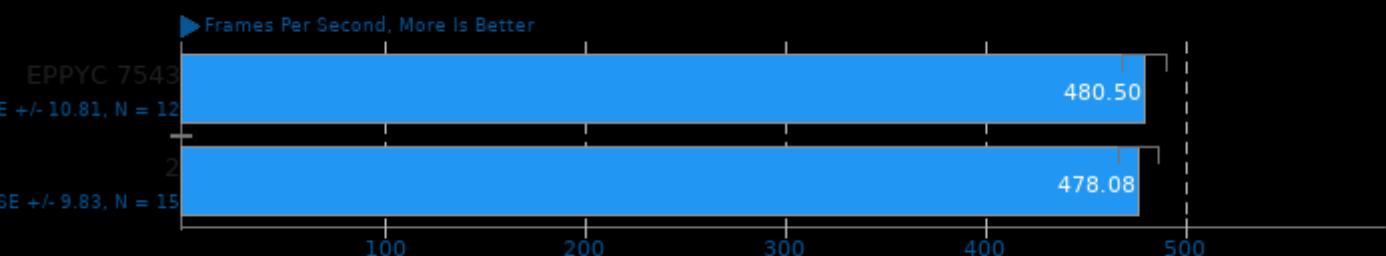
Tuning: 7 - Input: Bosphorus 1080p



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

## SVT-HEVC 1.5.0

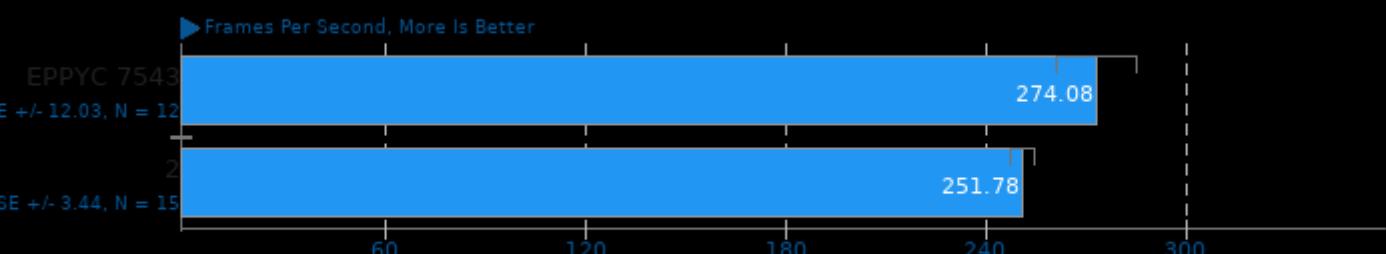
Tuning: 10 - Input: Bosphorus 1080p



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

## SVT-VP9 0.3

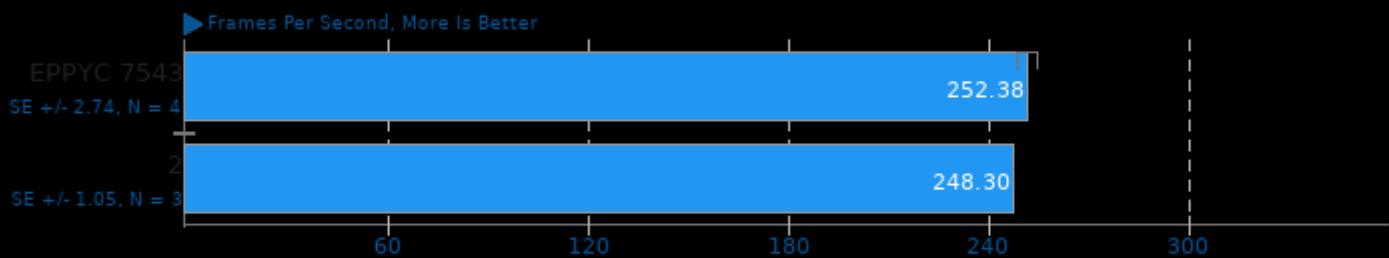
Tuning: VMAF Optimized - Input: Bosphorus 1080p



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

## SVT-VP9 0.3

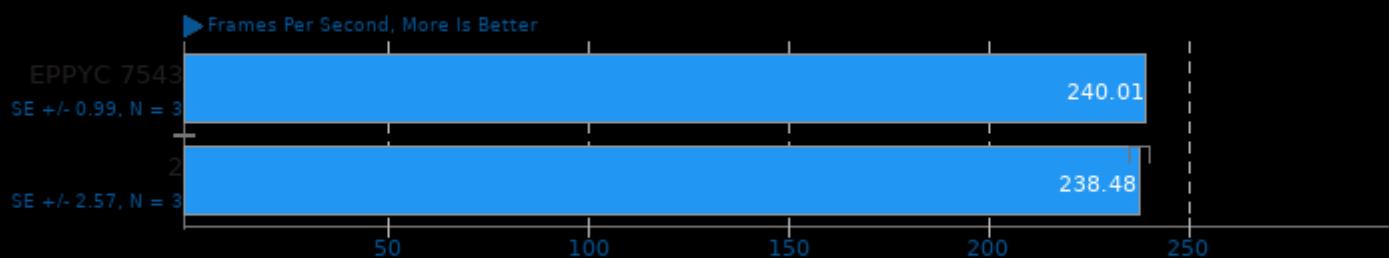
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



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

## SVT-VP9 0.3

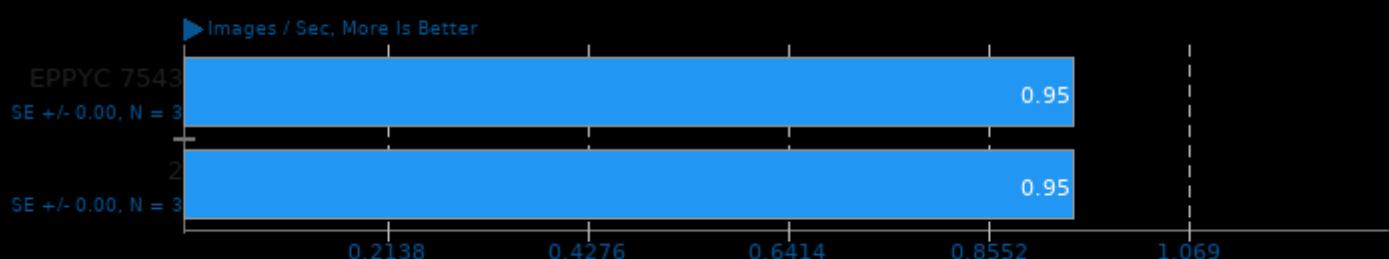
Tuning: Visual Quality Optimized - Input: Bosphorus 1080p



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

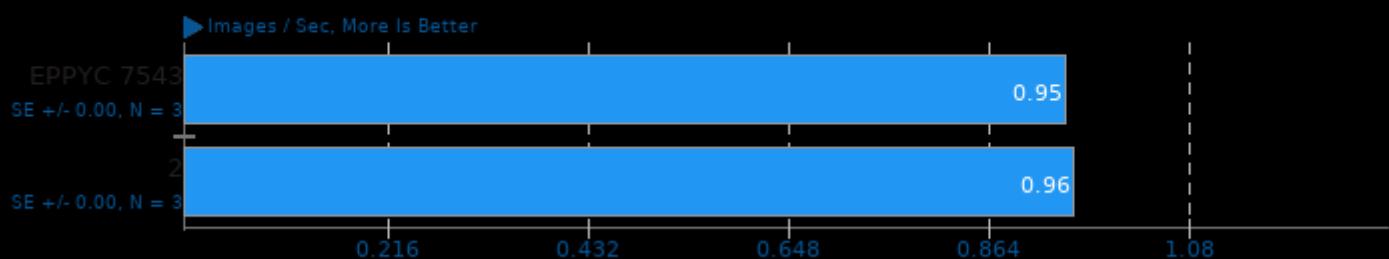
## Intel Open Image Denoise 1.4.0

Run: RT.hdr\_alb\_nrm.3840x2160



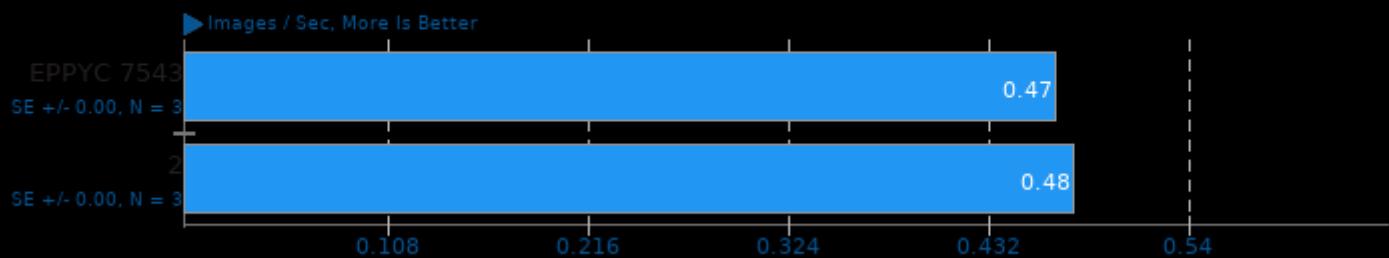
## Intel Open Image Denoise 1.4.0

Run: RT.Idr\_alb\_nrm.3840x2160



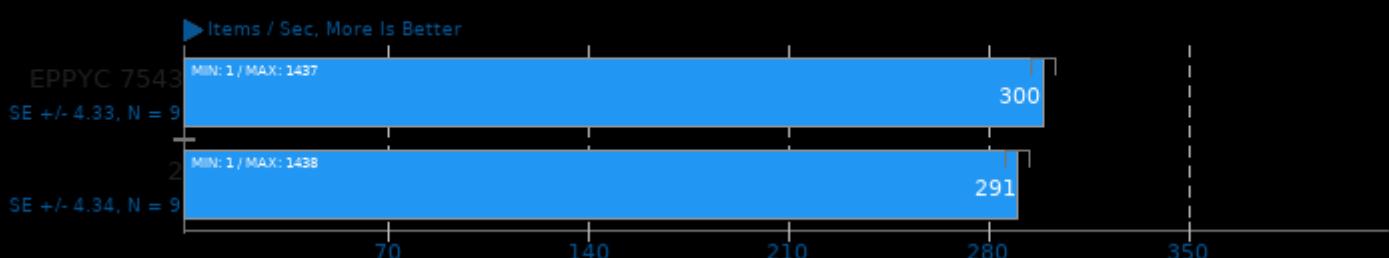
## Intel Open Image Denoise 1.4.0

Run: RTLightmap.hdr.4096x4096



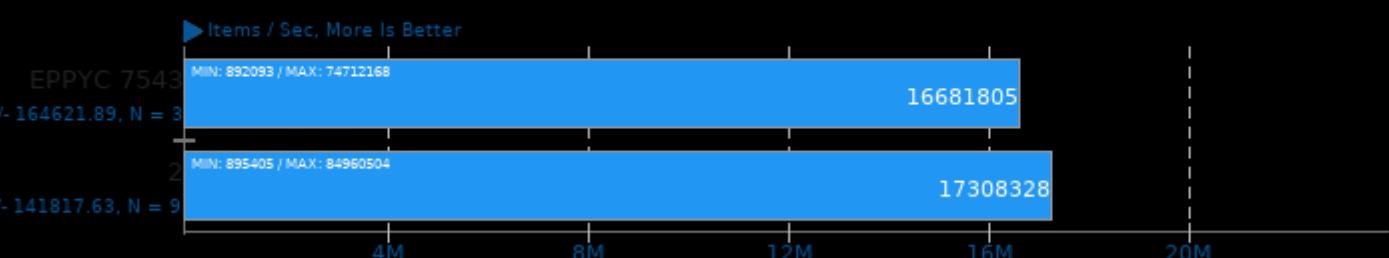
## OpenVKL 0.9

Benchmark: vklBenchmark



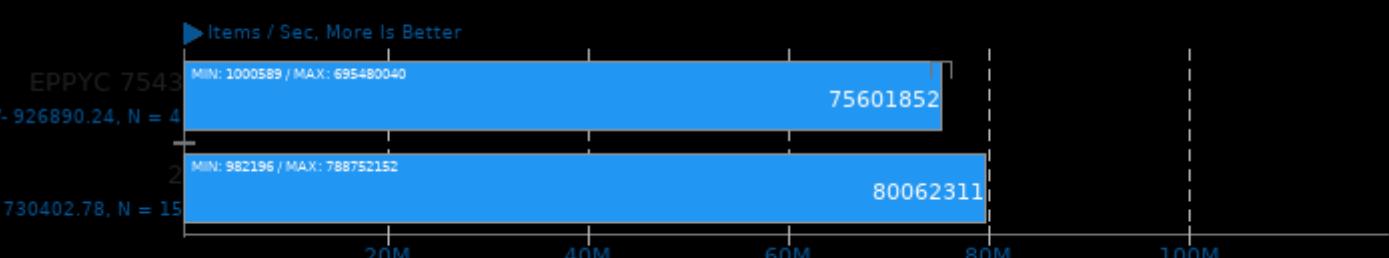
## OpenVKL 0.9

Benchmark: vklBenchmarkVdbVolume



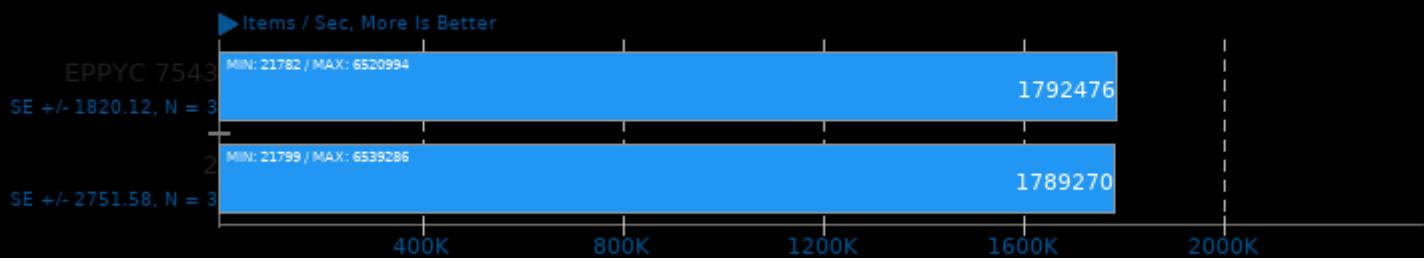
## OpenVKL 0.9

Benchmark: vklBenchmarkStructuredVolume



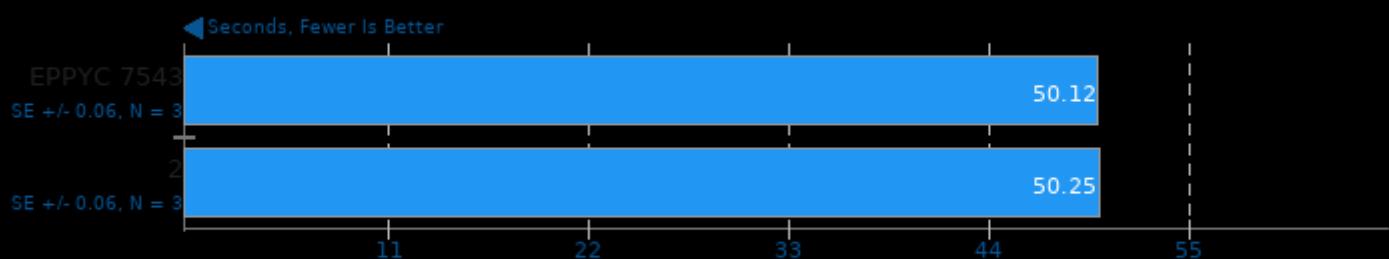
## OpenVKL 0.9

Benchmark: vklBenchmarkUnstructuredVolume



## libavif avifenc 0.9.0

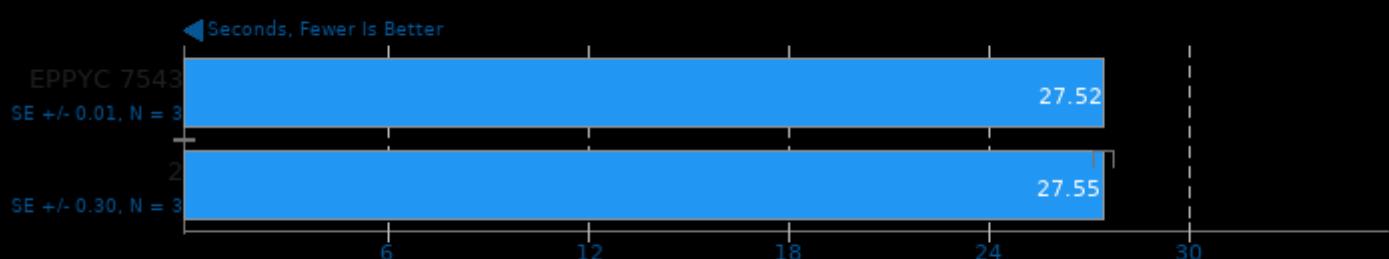
Encoder Speed: 0



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

## libavif avifenc 0.9.0

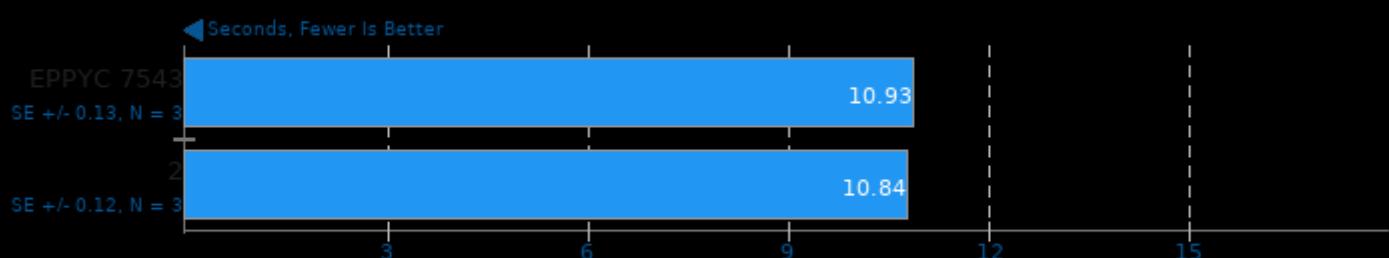
Encoder Speed: 2



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

## libavif avifenc 0.9.0

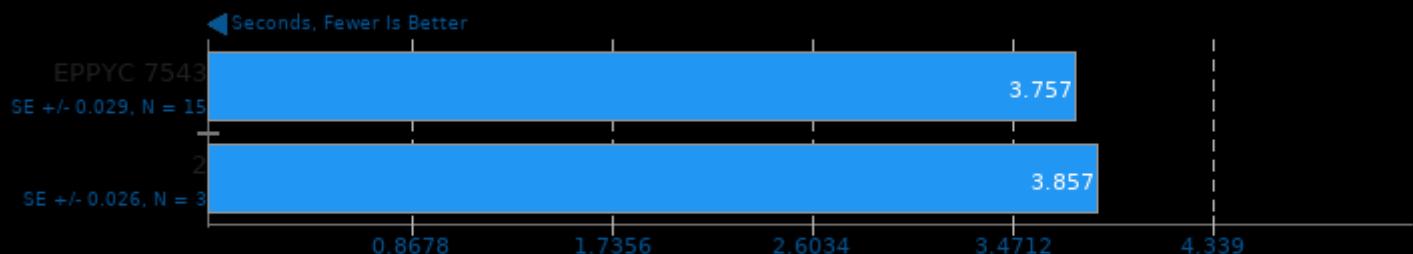
Encoder Speed: 6



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

## libavif avifenc 0.9.0

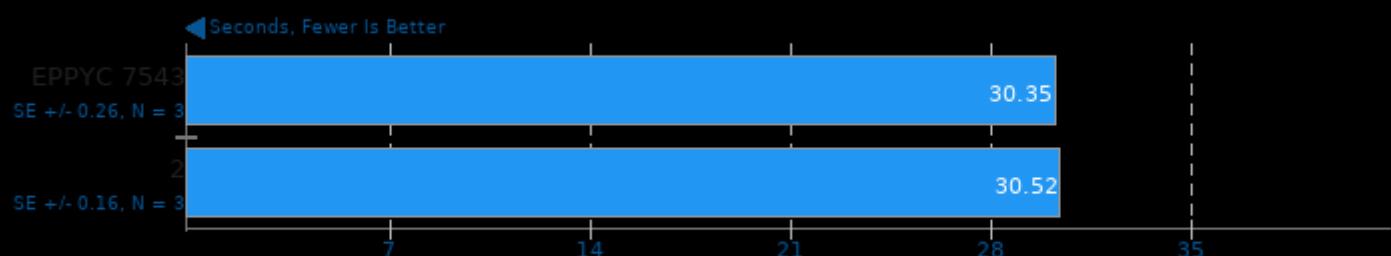
Encoder Speed: 10



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

## libavif avifenc 0.9.0

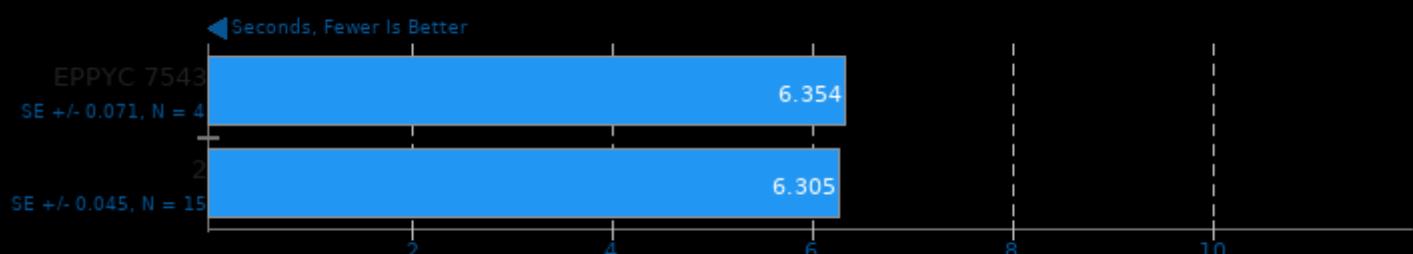
Encoder Speed: 6, Lossless



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

## libavif avifenc 0.9.0

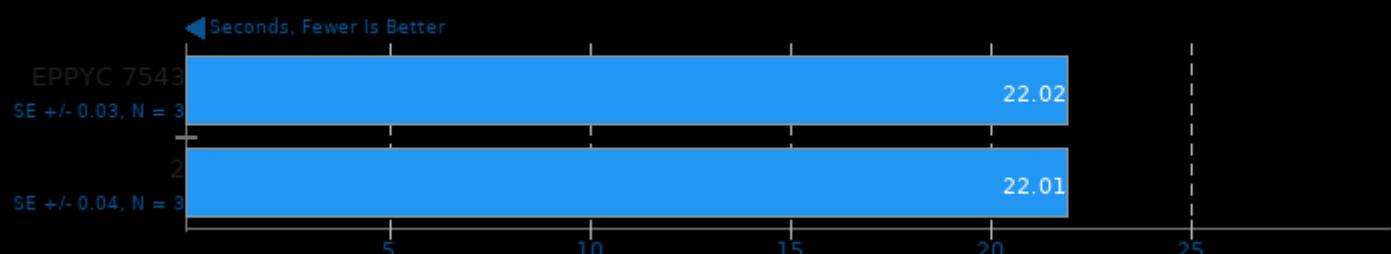
Encoder Speed: 10, Lossless



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

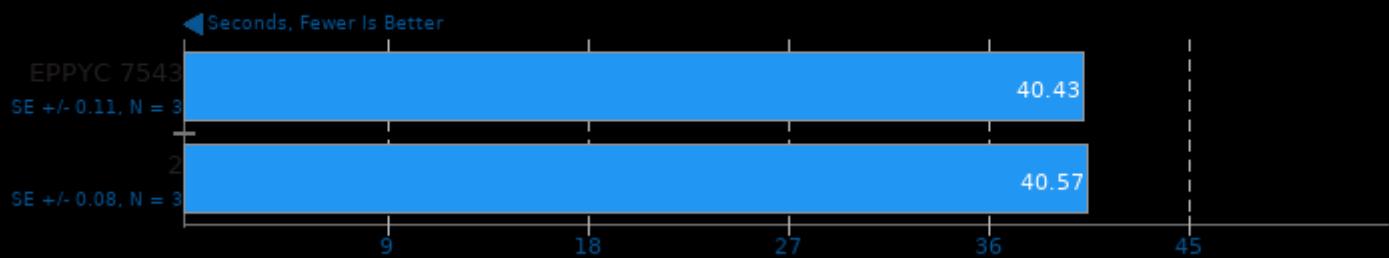
## Timed FFmpeg Compilation 4.4

Time To Compile



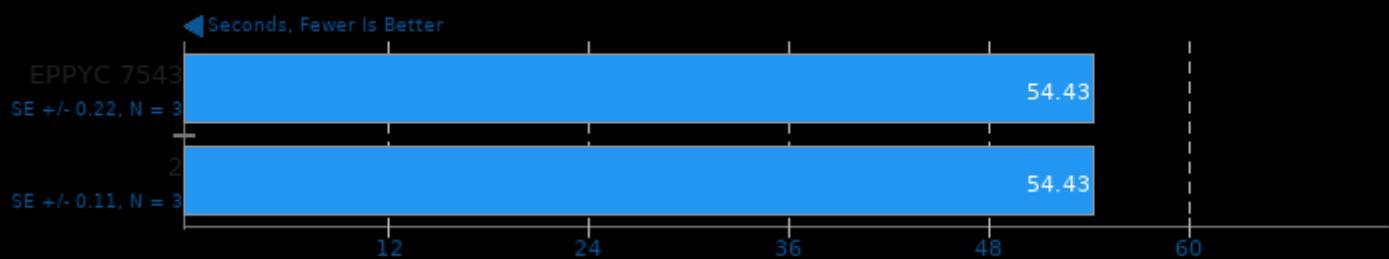
## Timed GDB GNU Debugger Compilation 10.2

Time To Compile



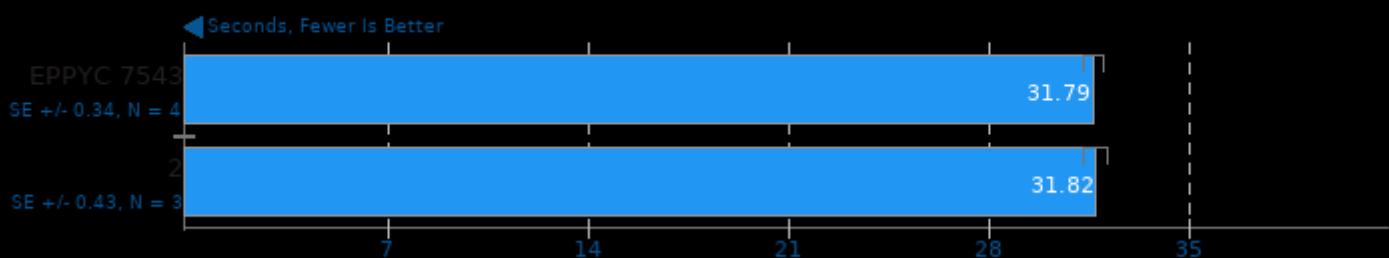
## Timed Godot Game Engine Compilation 3.2.3

Time To Compile



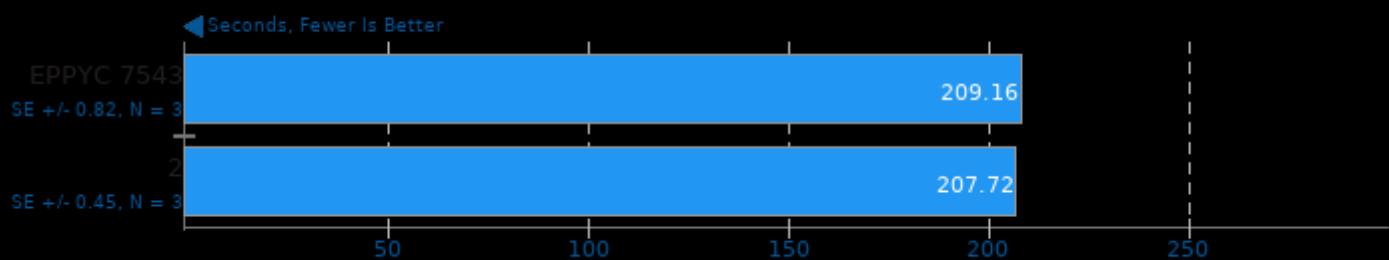
## Timed Linux Kernel Compilation 5.10.20

Time To Compile



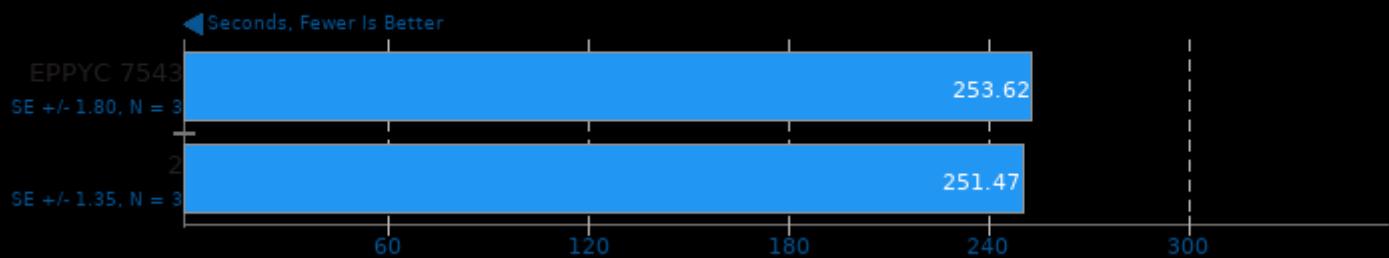
## Timed LLVM Compilation 12.0

Build System: Ninja



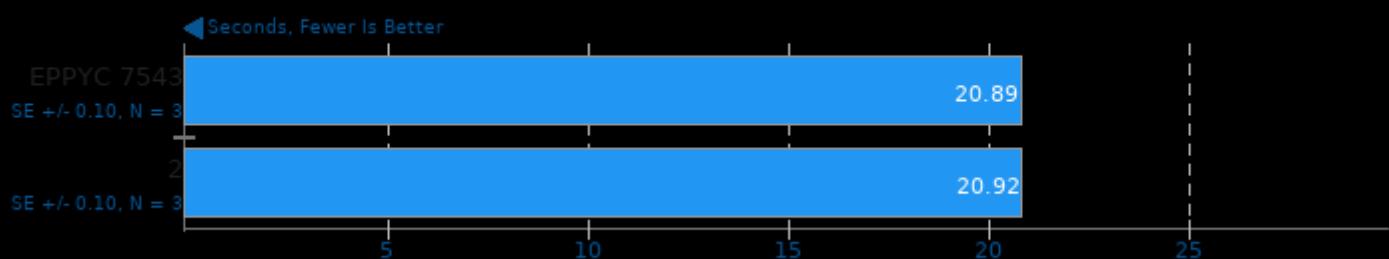
## Timed LLVM Compilation 12.0

Build System: Unix Makefiles



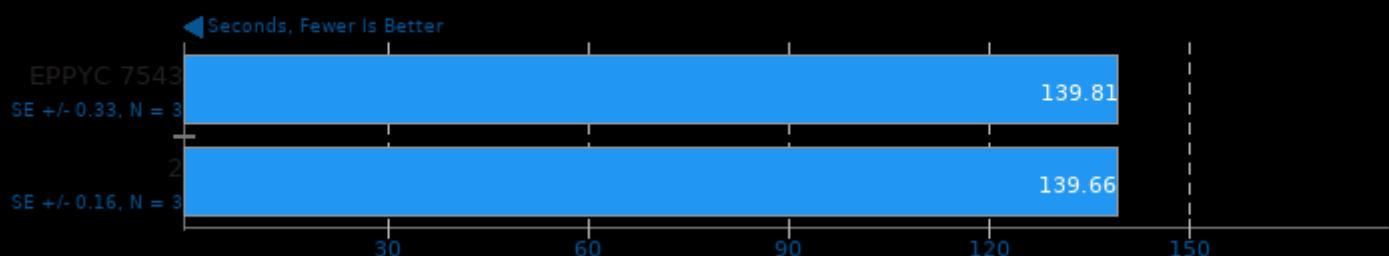
## Timed Mesa Compilation 21.0

Time To Compile



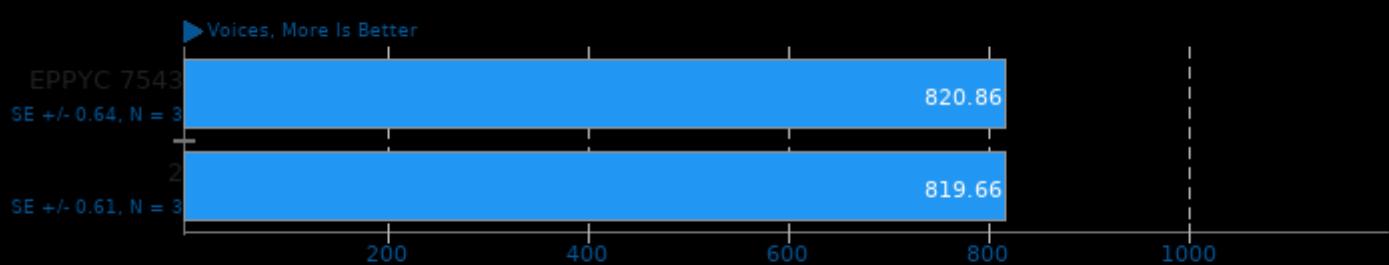
## Timed Node.js Compilation 15.11

Time To Compile



## Google SynthMark 20201109

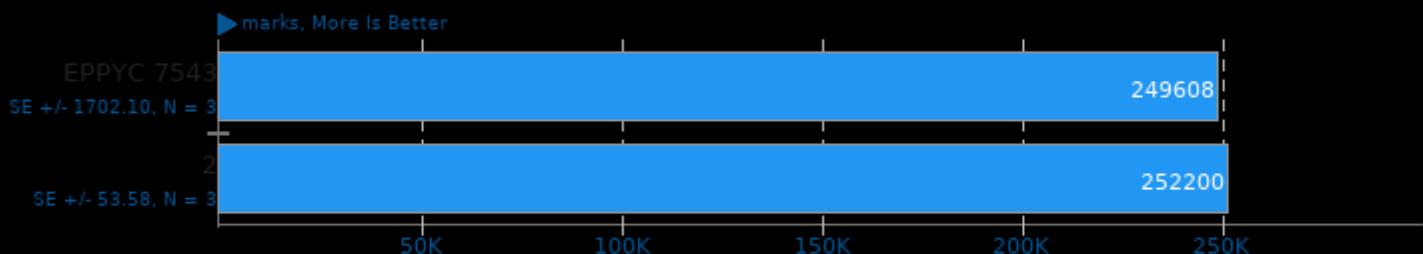
Test: VoiceMark\_100



1. (CXX) g++ options: -fopenmp -fthreadsafe -std=c++11 -Ofast

## SecureMark 1.0.4

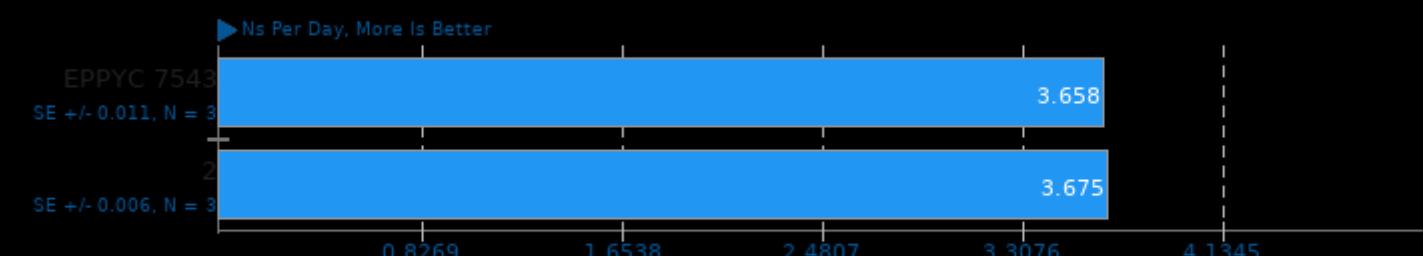
Benchmark: SecureMark-TLS



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

## GROMACS 2021.2

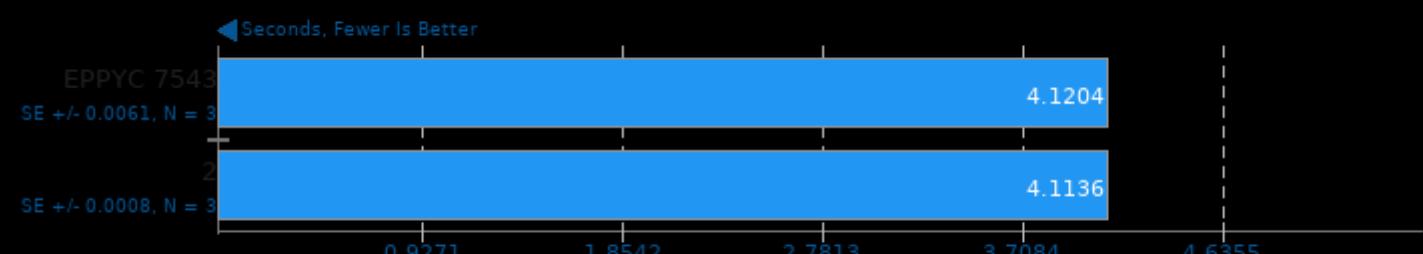
Implementation: MPI CPU - Input: water\_GMX50\_bare



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

## ASTC Encoder 3.0

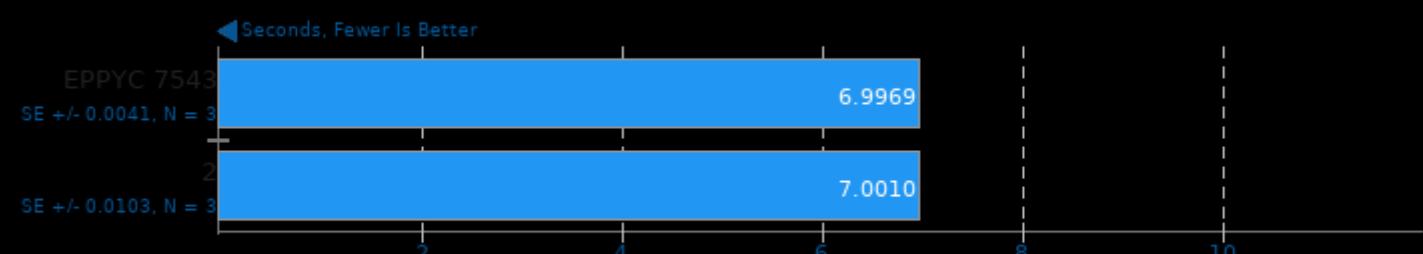
Preset: Medium



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

## ASTC Encoder 3.0

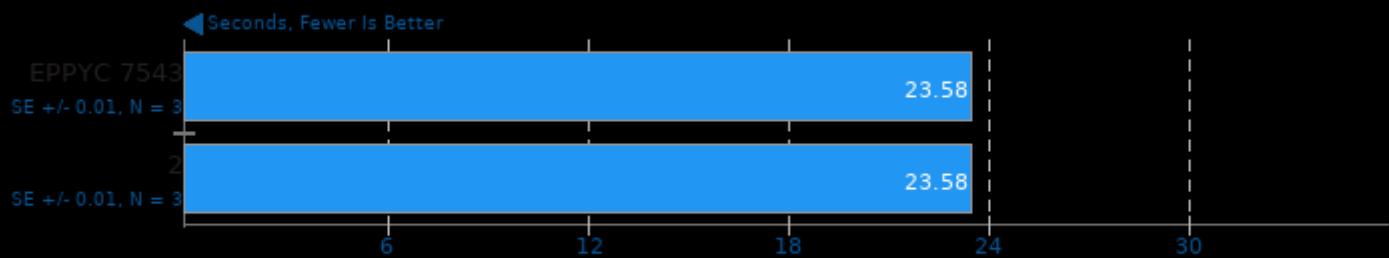
Preset: Thorough



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

## ASTC Encoder 3.0

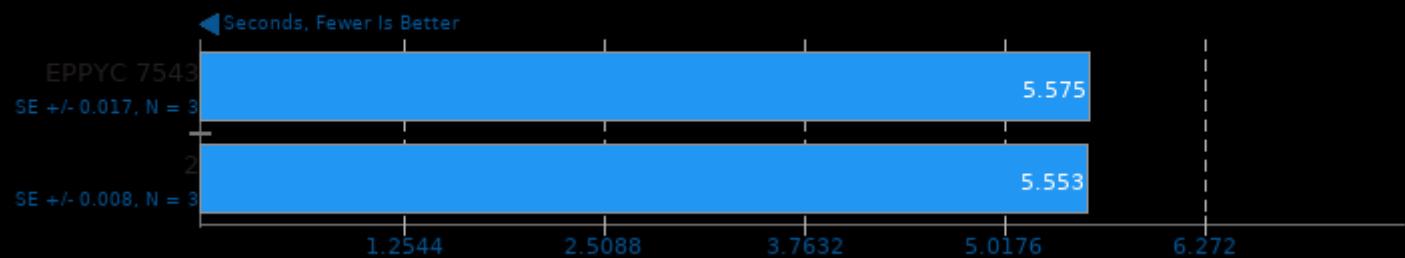
Preset: Exhaustive



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

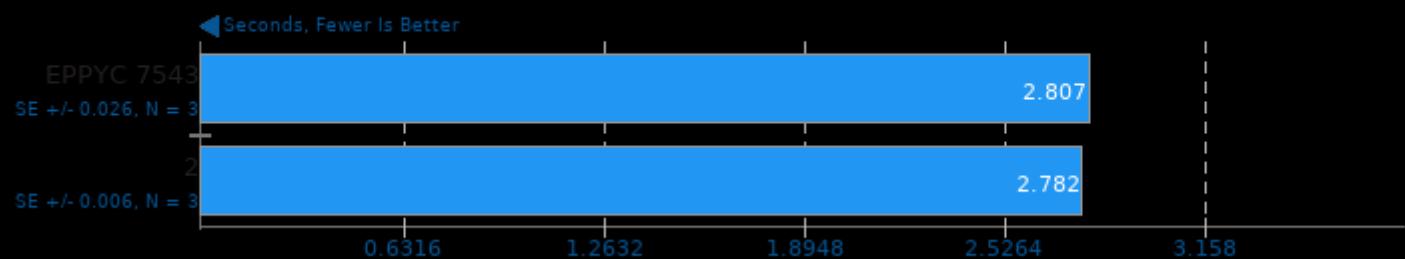
## KTX-Software toktx 4.0

Settings: UASTC 3



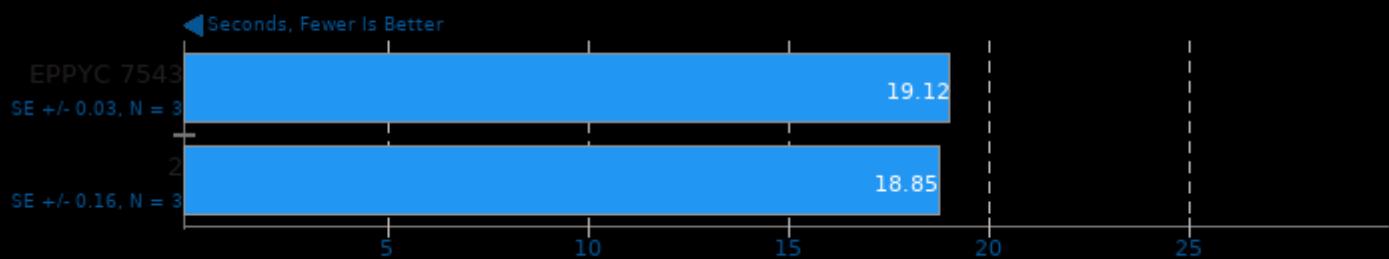
## KTX-Software toktx 4.0

Settings: Zstd Compression 9



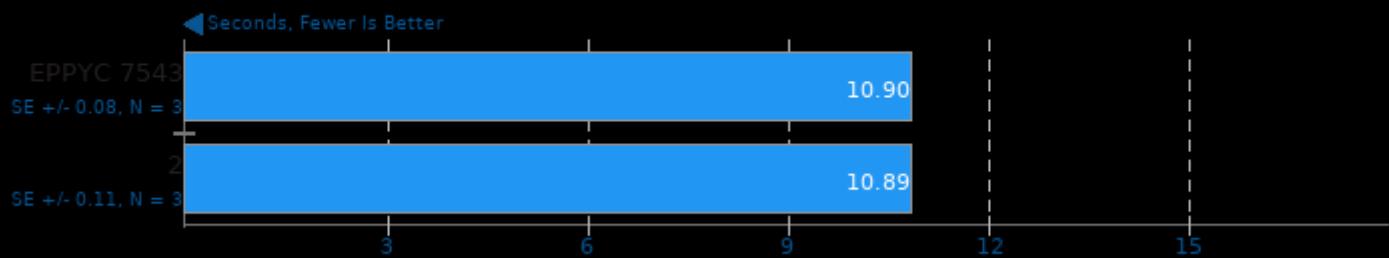
## KTX-Software toktx 4.0

Settings: Zstd Compression 19



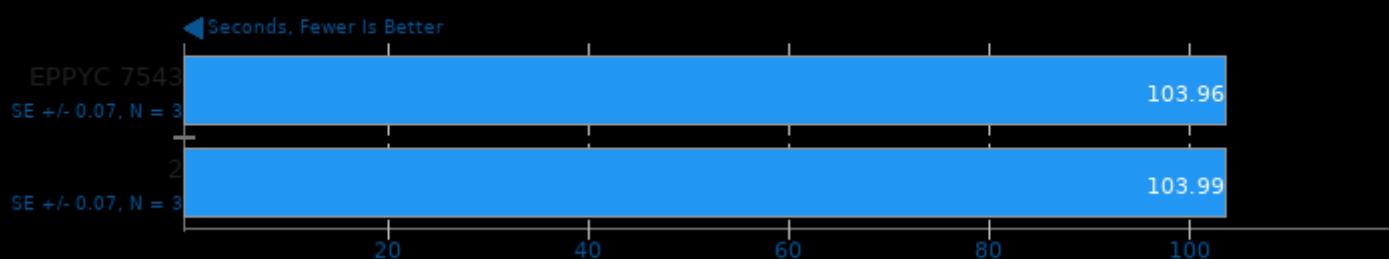
## KTX-Software toktx 4.0

Settings: UASTC 3 + Zstd Compression 19



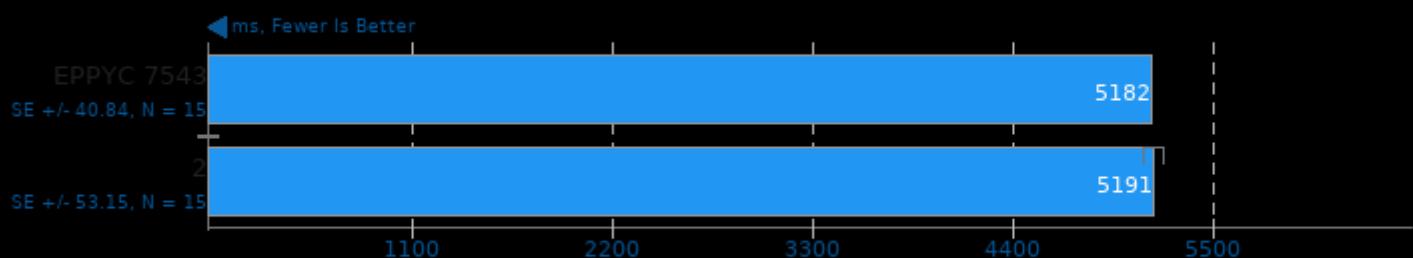
## KTX-Software toktx 4.0

Settings: UASTC 4 + Zstd Compression 19



## Google Draco 1.4.1

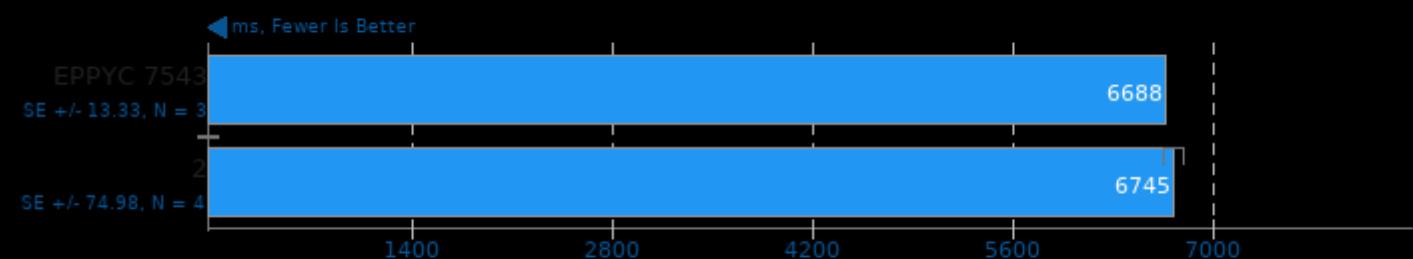
Model: Lion



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

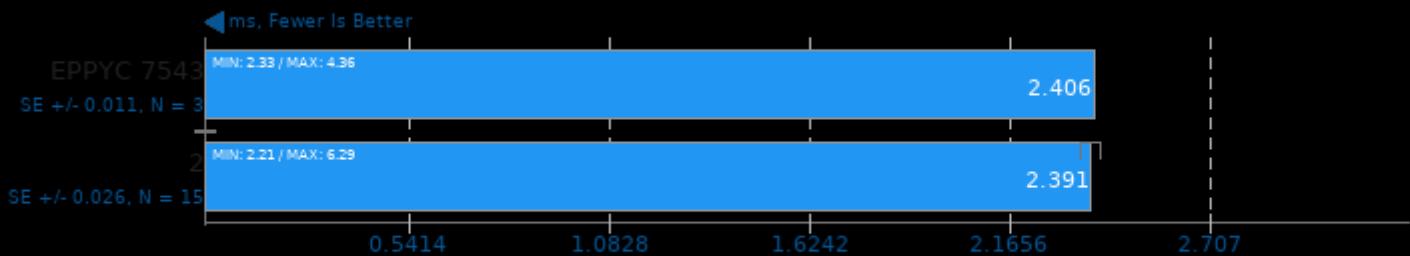
## Google Draco 1.4.1

Model: Church Facade

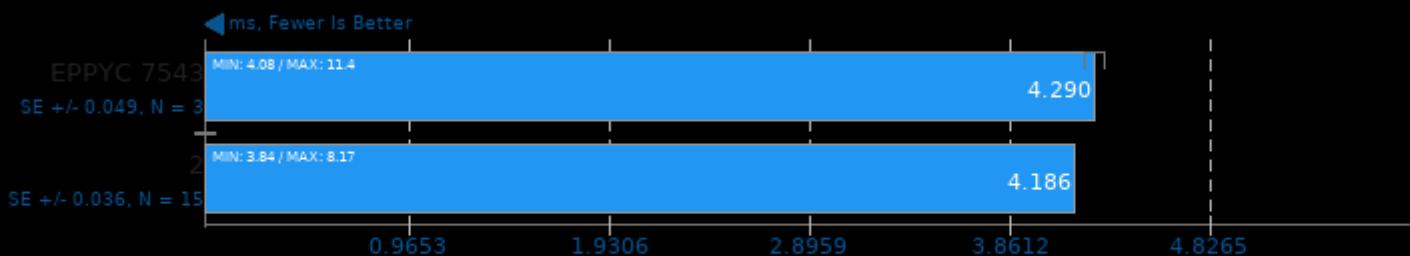


1. (CXX) g++ options: -O3

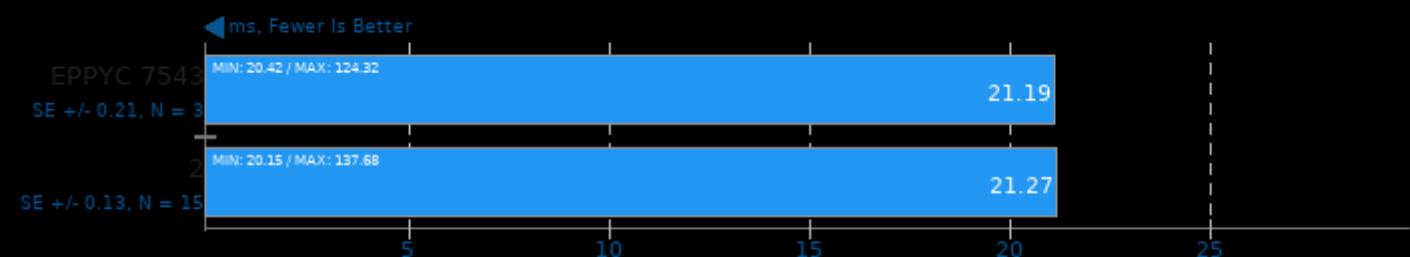
Mobile Neural Network 1.2



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr



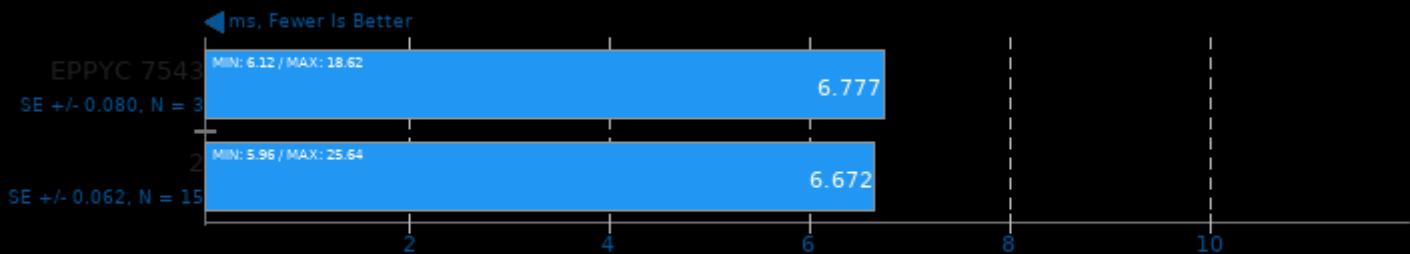
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fno-threadsafe-statics

## Mobile Neural Network 1.2

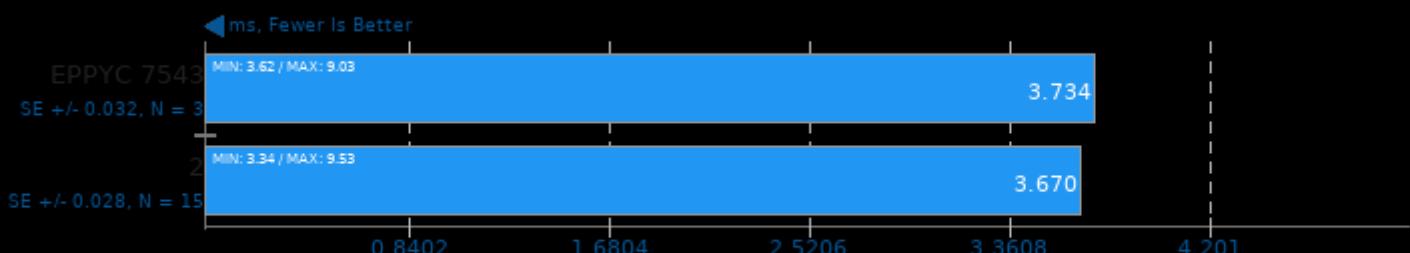
Model: SqueezeNetV1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fno-threadsafe-statics

## Mobile Neural Network 1.2

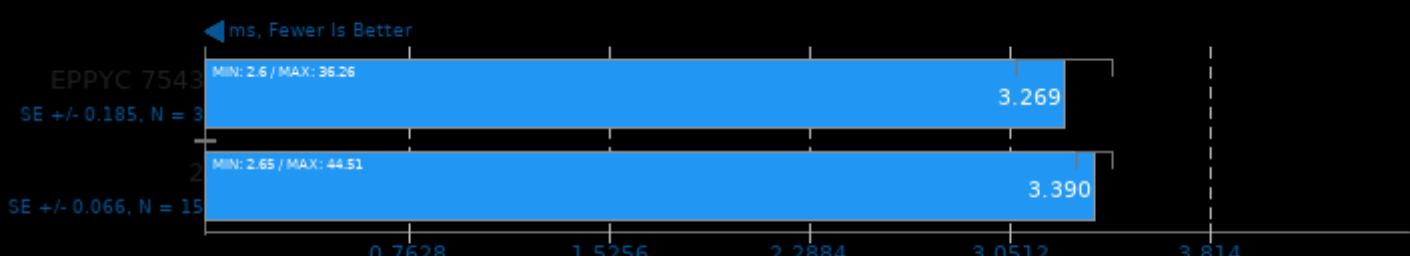
Model: MobileNetV2\_224



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fno-threadsafe-statics

## Mobile Neural Network 1.2

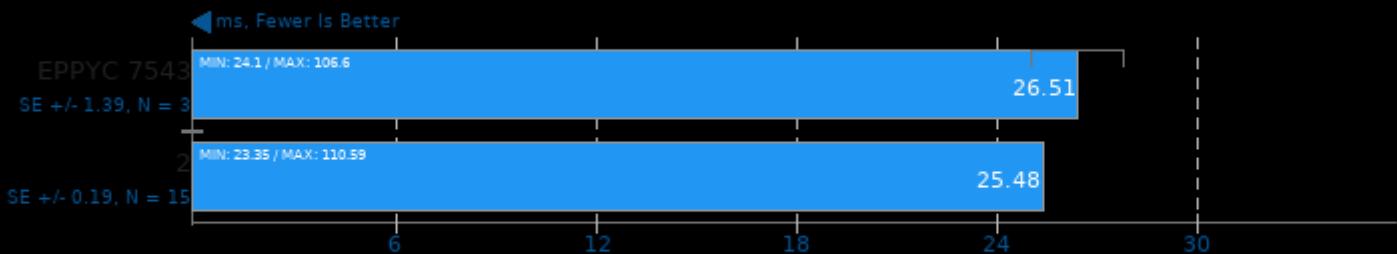
Model: mobilenet-v1-1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fno-threadsafe-statics

## Mobile Neural Network 1.2

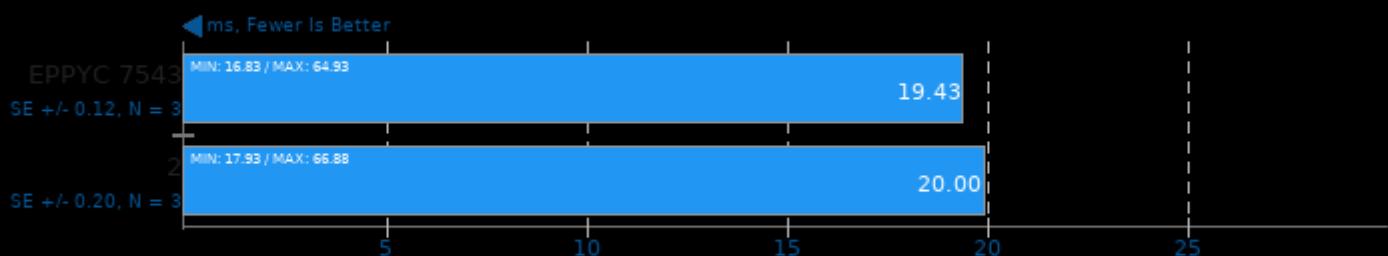
Model: inception-v3



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fno-threadsafe-statics

## NCNN 20210525

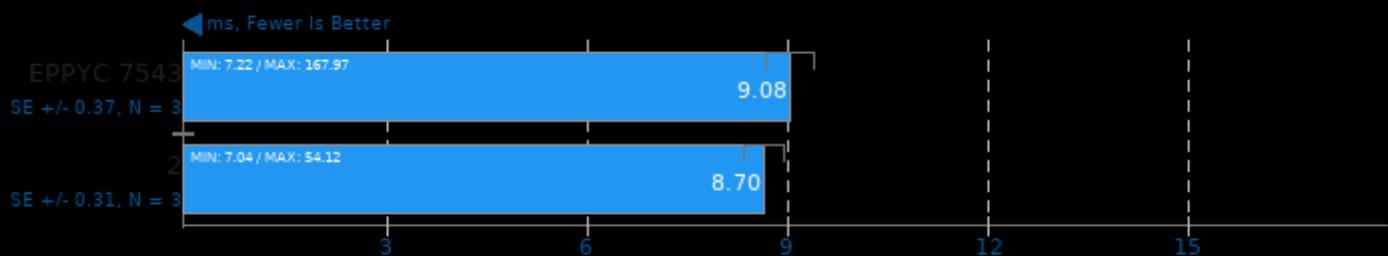
Target: CPU - Model: mobilenet



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

## NCNN 20210525

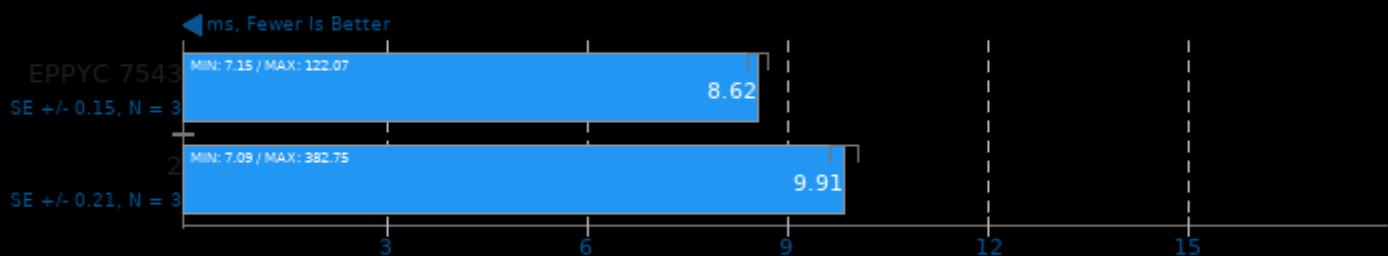
Target: CPU-v2-v2 - Model: mobilenet-v2



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

## NCNN 20210525

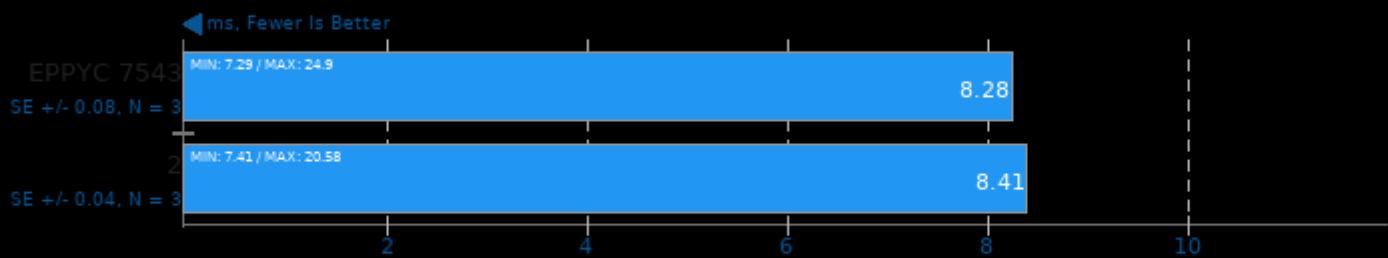
Target: CPU-v3-v3 - Model: mobilenet-v3



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

## NCNN 20210525

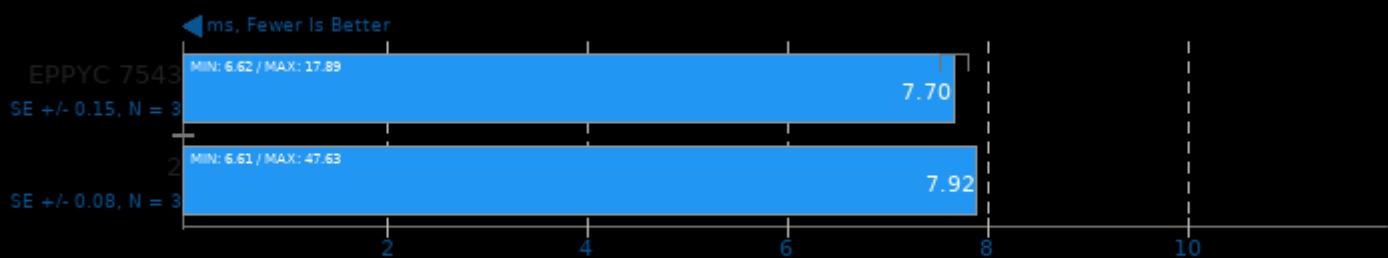
Target: CPU - Model: shufflenet-v2



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

## NCNN 20210525

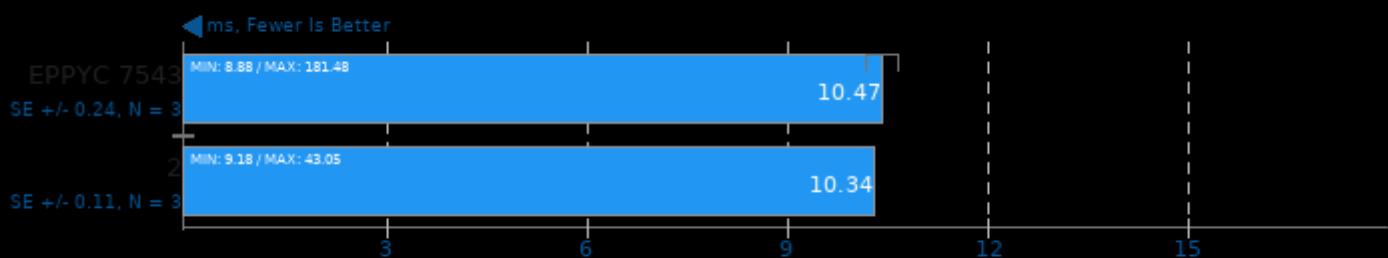
Target: CPU - Model: mnasnet



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

## NCNN 20210525

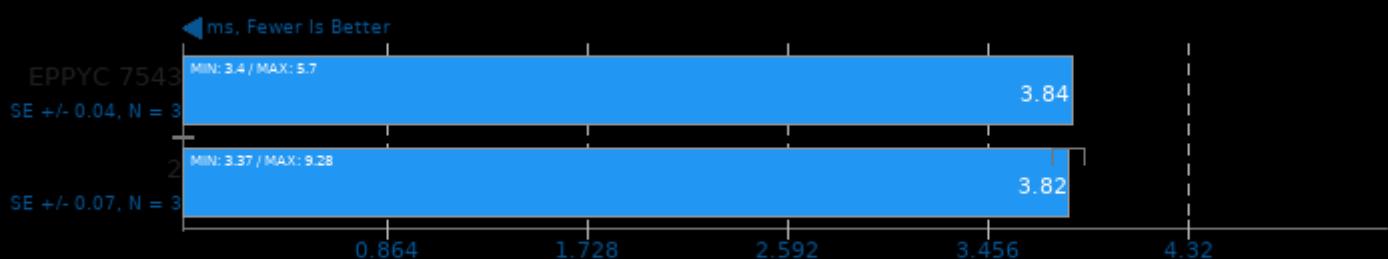
Target: CPU - Model: efficientnet-b0



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

## NCNN 20210525

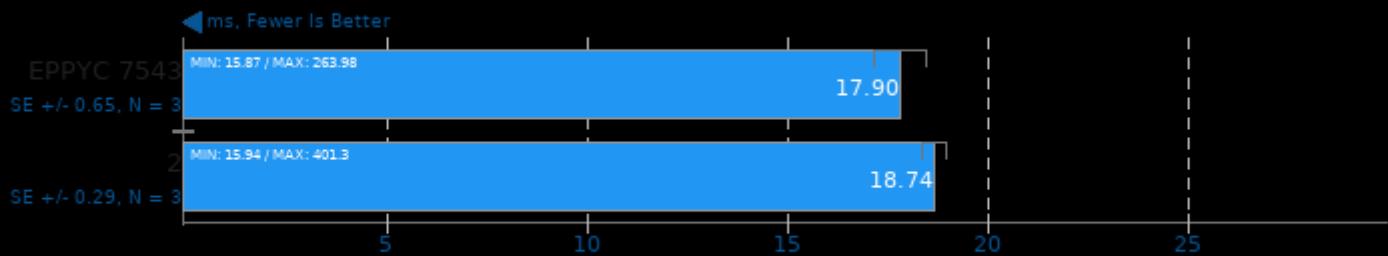
Target: CPU - Model: blazeface



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

**NCNN 20210525**

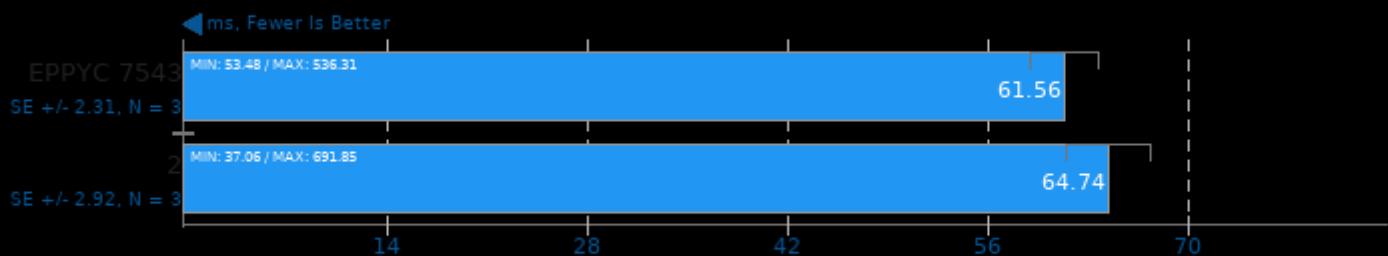
Target: CPU - Model: googlenet



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

**NCNN 20210525**

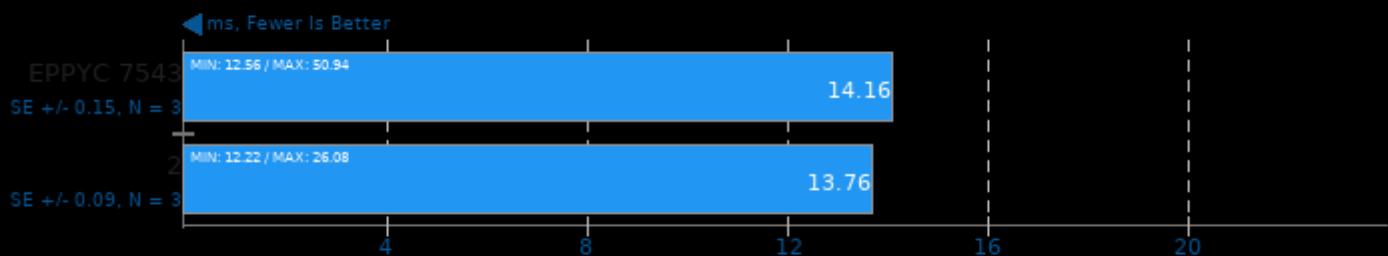
Target: CPU - Model: vgg16



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

**NCNN 20210525**

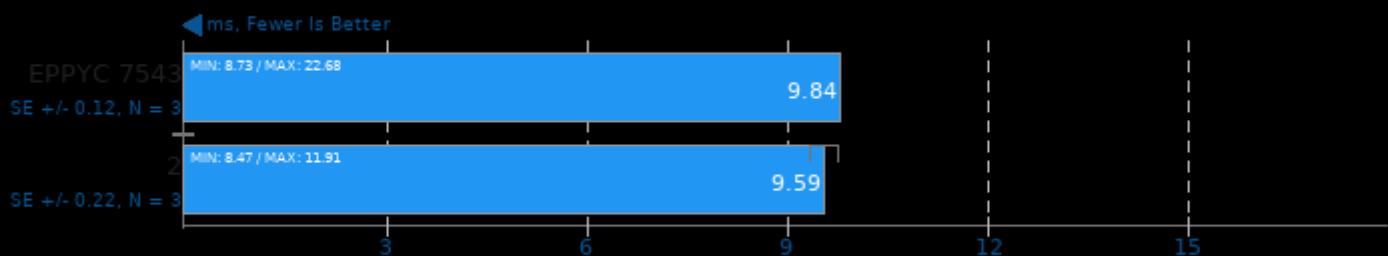
Target: CPU - Model: resnet18



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

**NCNN 20210525**

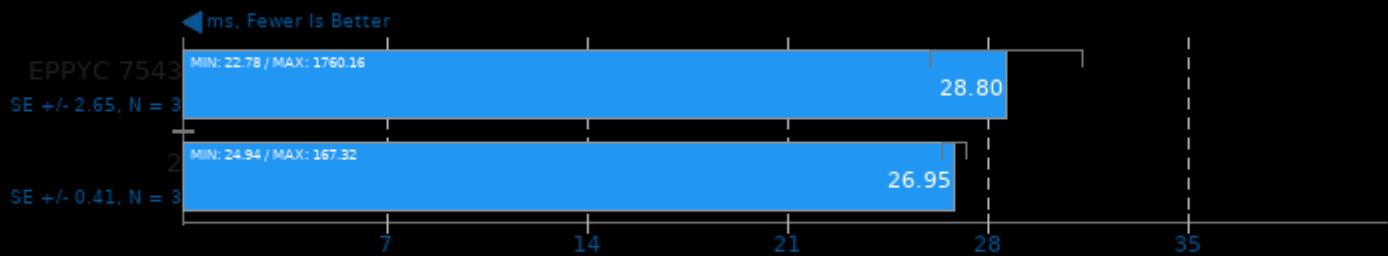
Target: CPU - Model: alexnet



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

**NCNN 20210525**

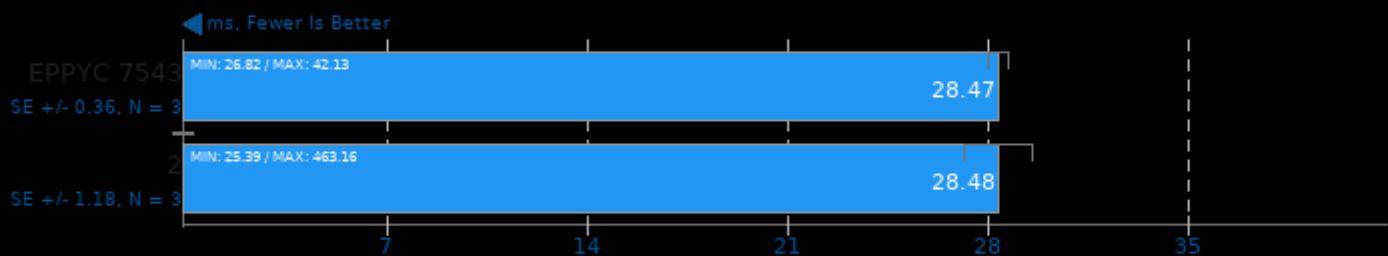
Target: CPU - Model: resnet50



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

**NCNN 20210525**

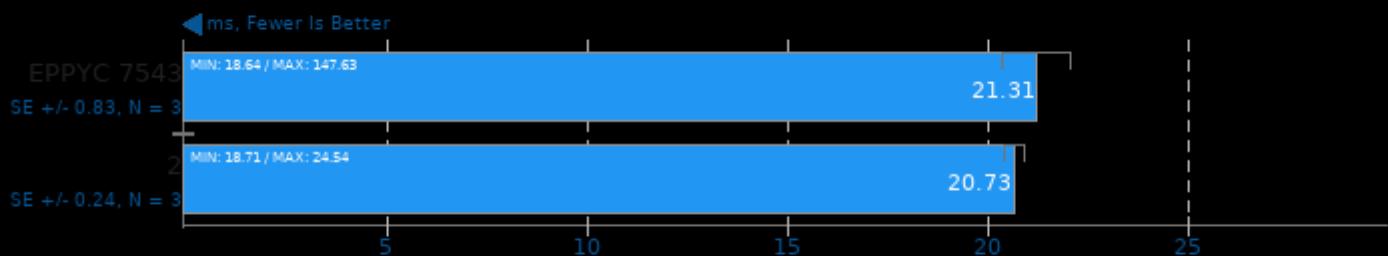
Target: CPU - Model: yolov4-tiny



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

**NCNN 20210525**

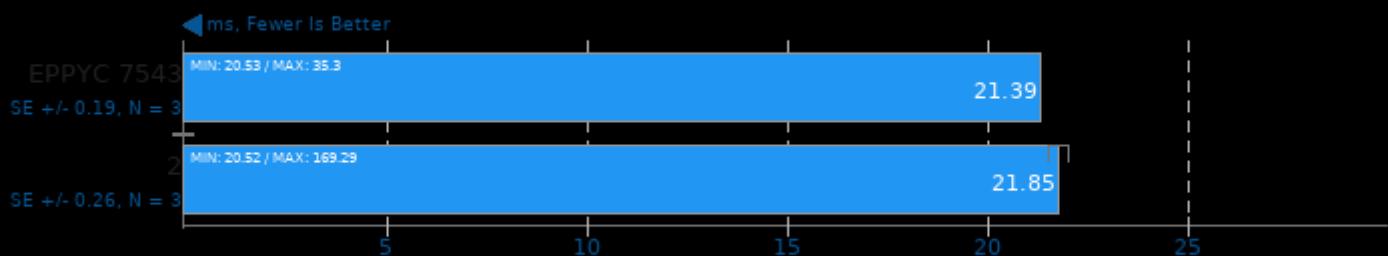
Target: CPU - Model: squeezenet\_ssd



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

**NCNN 20210525**

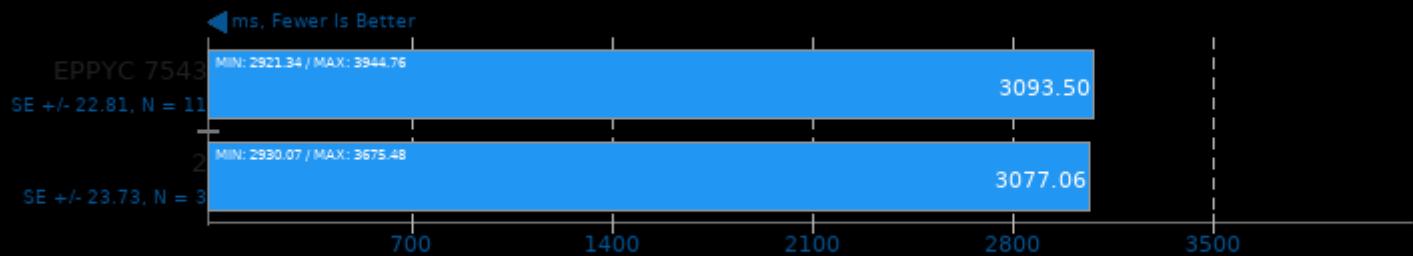
Target: CPU - Model: regnety\_400m



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

## TNN 0.3

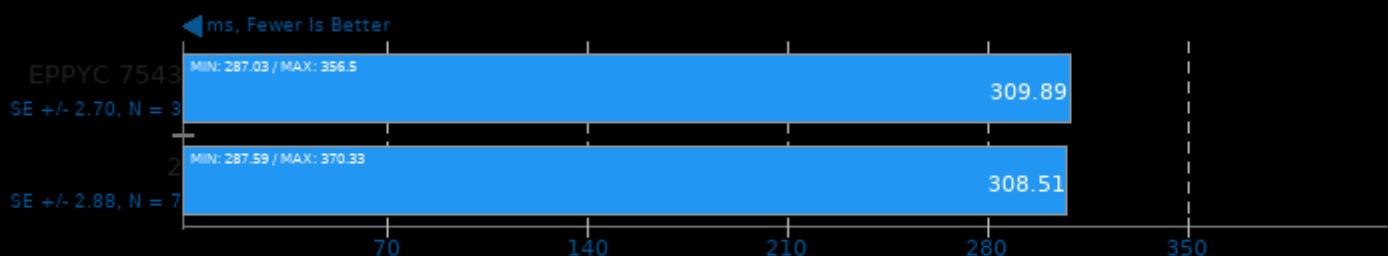
Target: CPU - Model: DenseNet



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

## TNN 0.3

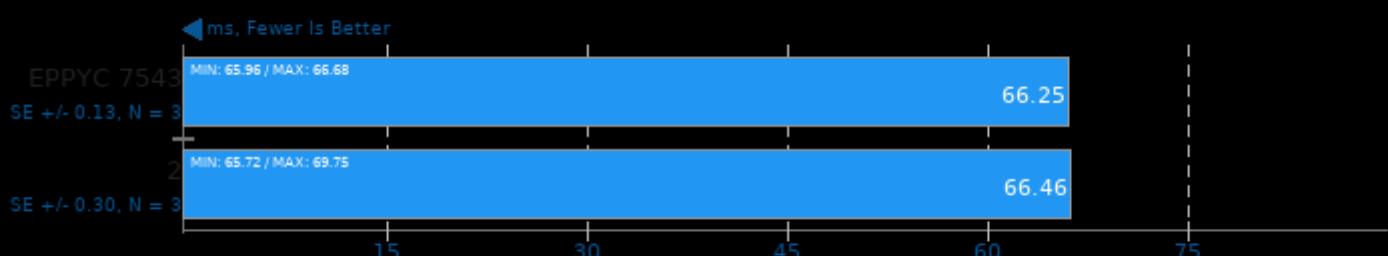
Target: CPU - Model: MobileNet v2



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

## TNN 0.3

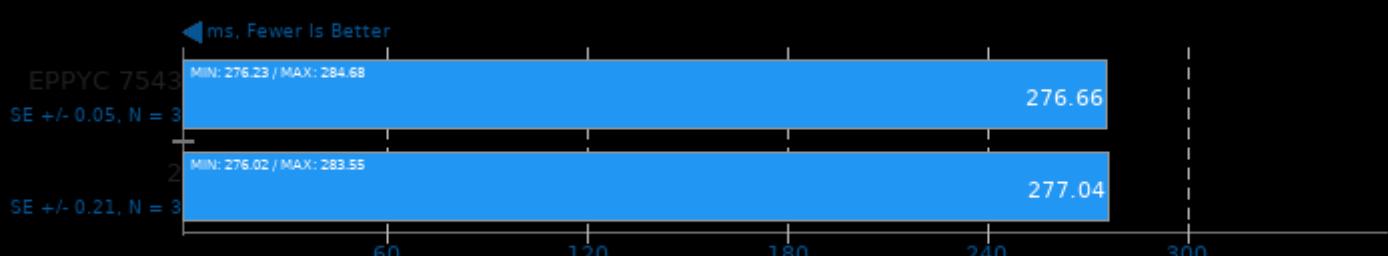
Target: CPU - Model: SqueezeNet v2



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

## TNN 0.3

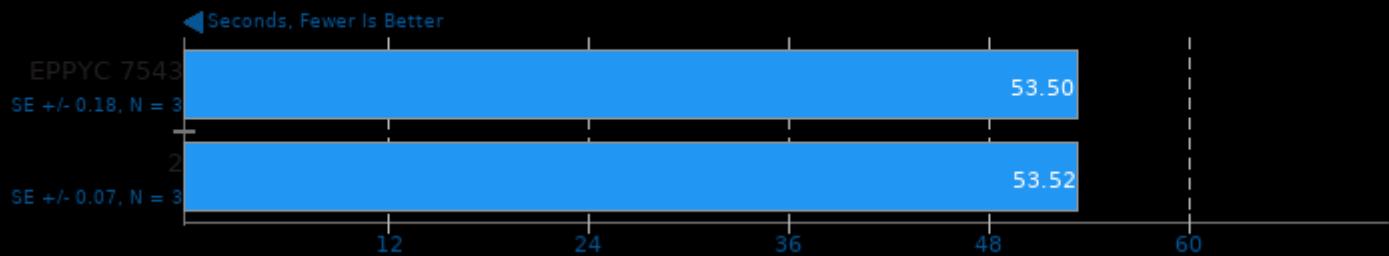
Target: CPU - Model: SqueezeNet v1.1



1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

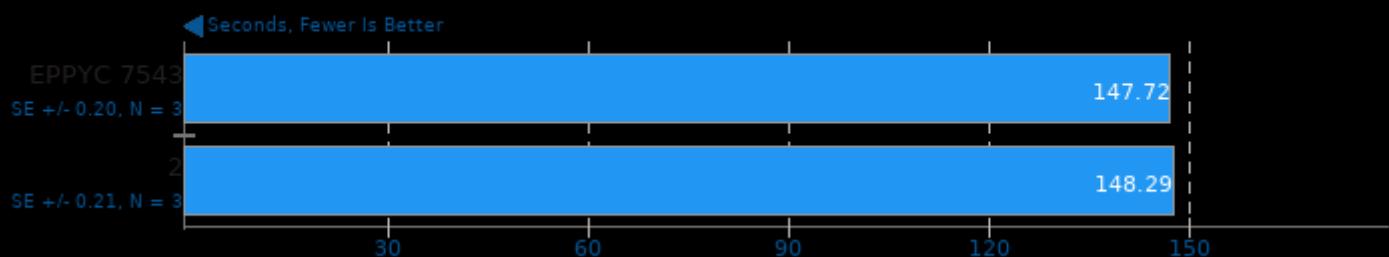
## Blender 2.92

Blend File: BMW27 - Compute: CPU-Only



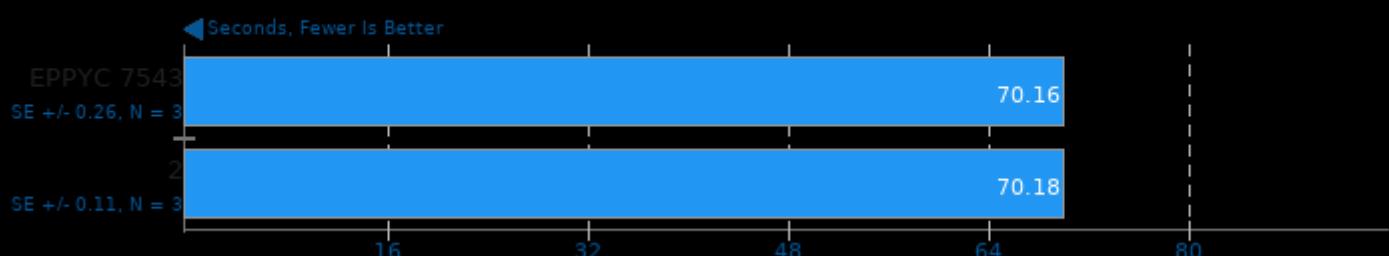
## Blender 2.92

Blend File: Classroom - Compute: CPU-Only



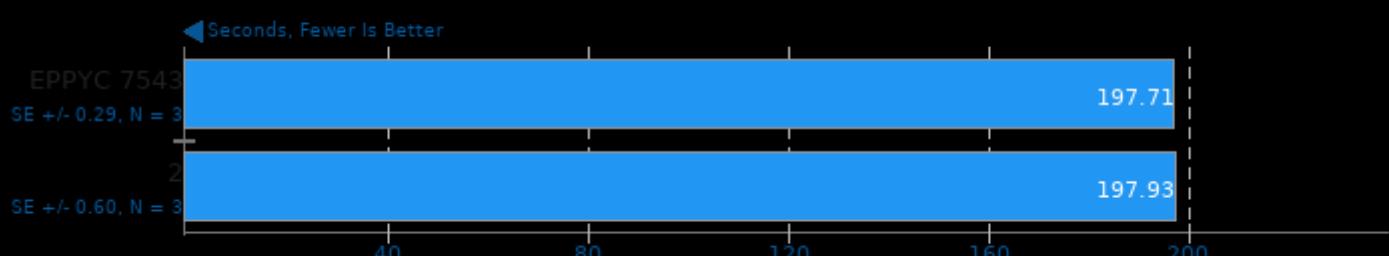
## Blender 2.92

Blend File: Fishy Cat - Compute: CPU-Only



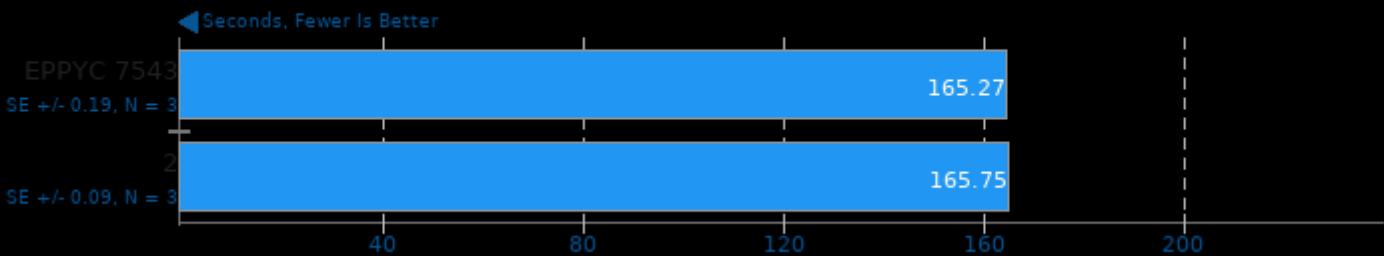
## Blender 2.92

Blend File: Barbershop - Compute: CPU-Only



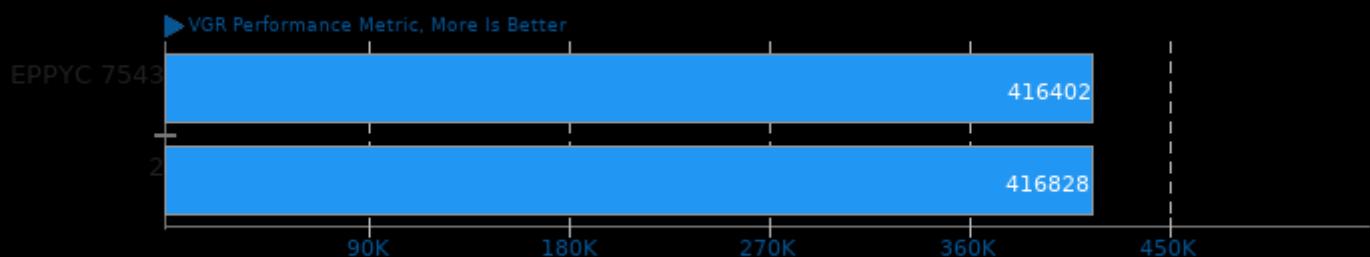
## Blender 2.92

Blend File: Pabellon Barcelona - Compute: CPU-Only



## BRL-CAD 7.32.2

VGR Performance Metric

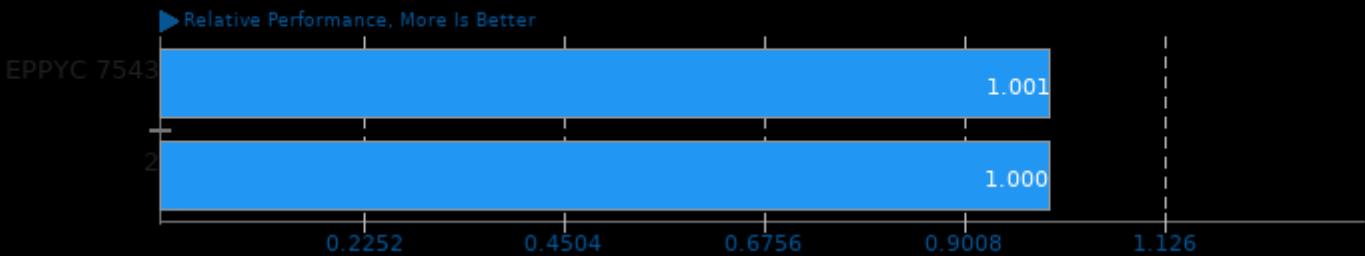


1. (CXX) g++ options: -std=c++11 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-pt

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

### Geometric Mean Of AV1 Tests

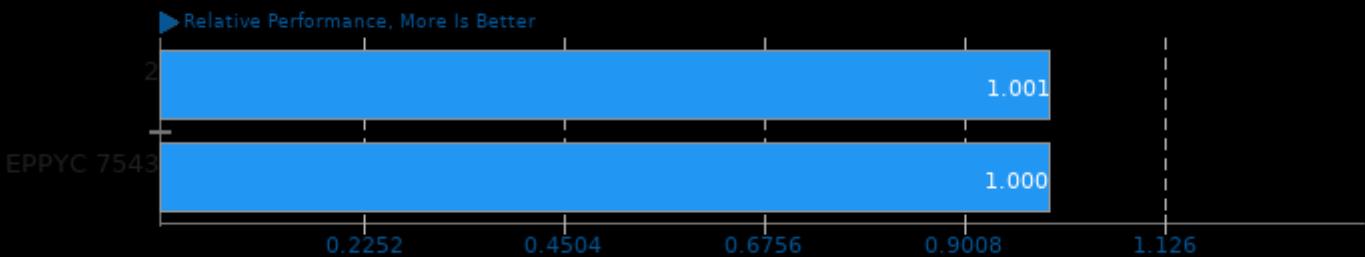
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/dav1d, pts/aom-av1 and pts/avifenc

### Geometric Mean Of Timed Code Compilation Tests

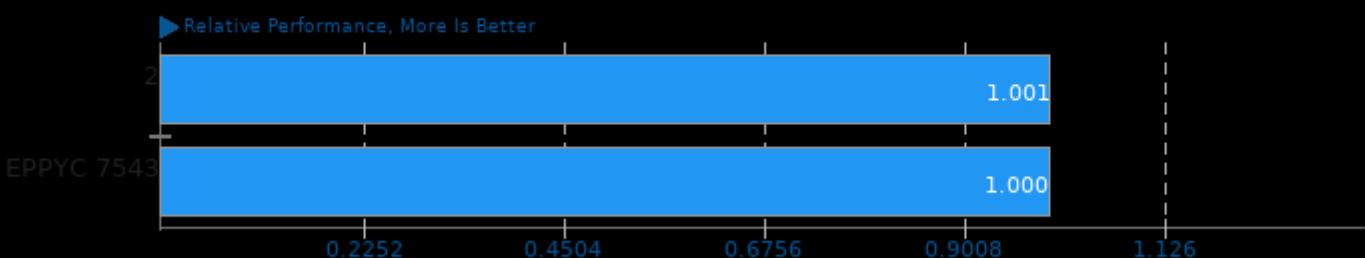
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/build-linux-kernel, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-godot, pts/build-nodejs and pts/build-mesa

### Geometric Mean Of C/C++ Compiler Tests

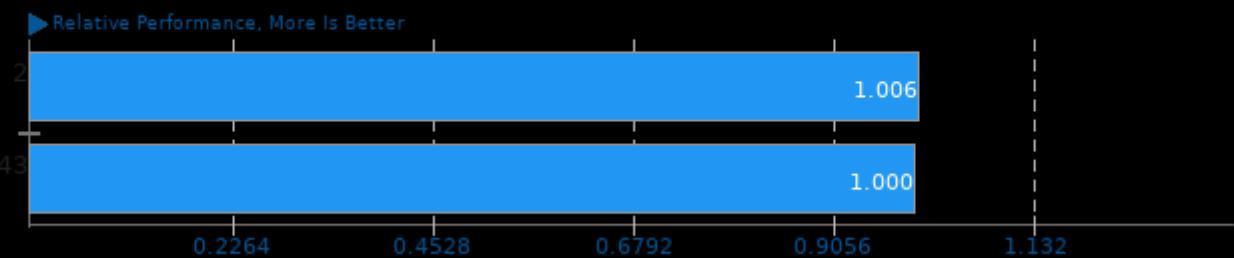
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/build-llvm, pts/dav1d, pts/compress-zstd, pts/aom-av1, pts/svt-vp9, pts/gromacs, pts/build-gdb, pts/build-ffmpeg and pts/toybrot

## Geometric Mean Of CPU Massive Tests

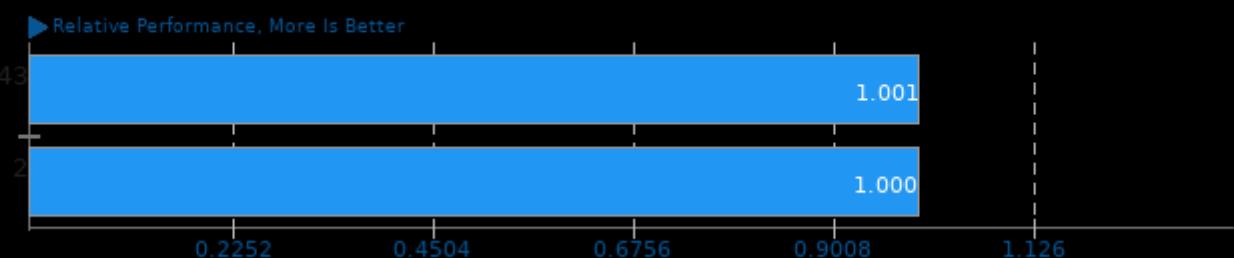
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/brl-cad, pts/build-llvm, pts/build-linux-kernel, pts/compress-zstd, pts/dav1d, pts/svt-hevc, pts/svt-vp9, pts/namd, pts/npb and pts/blender

## Geometric Mean Of Creator Workloads Tests

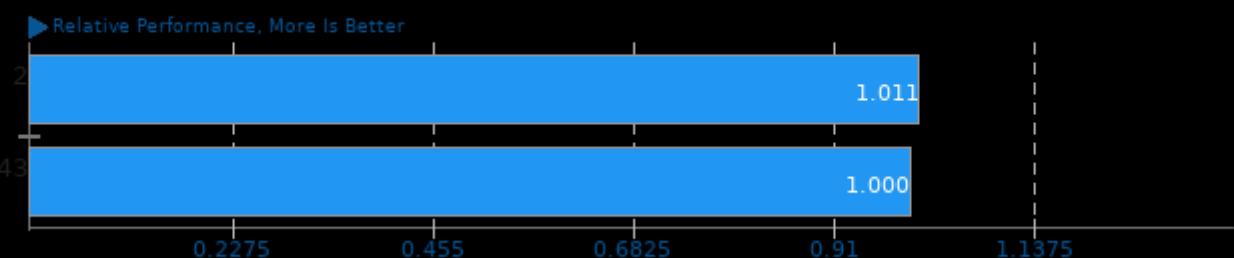
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/blender, pts/luxcorerender, pts/svt-vp9, pts/svt-hevc, pts/dav1d, pts/aom-av1, pts/avifenc, pts/embree, pts/oidn, pts/openvkl, pts/astcenc, pts/toktx, pts/draco, pts/build-godot, pts/synthmark and pts/brl-cad

## Geometric Mean Of Cryptography Tests

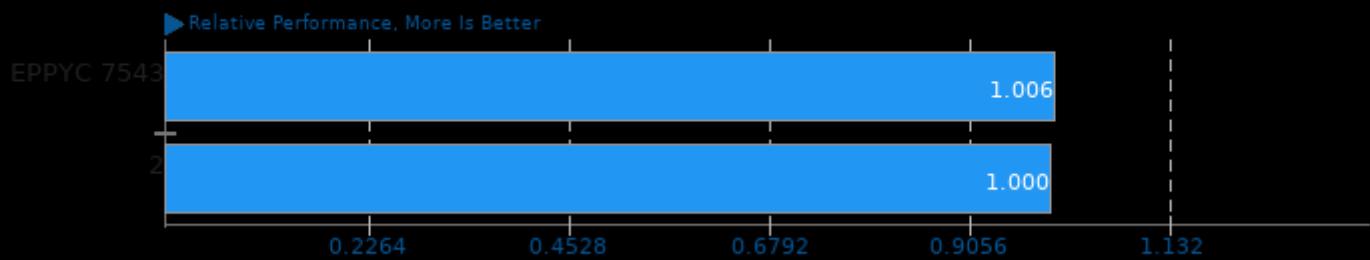
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/securemark and pts/xmrig

## Geometric Mean Of Encoding Tests

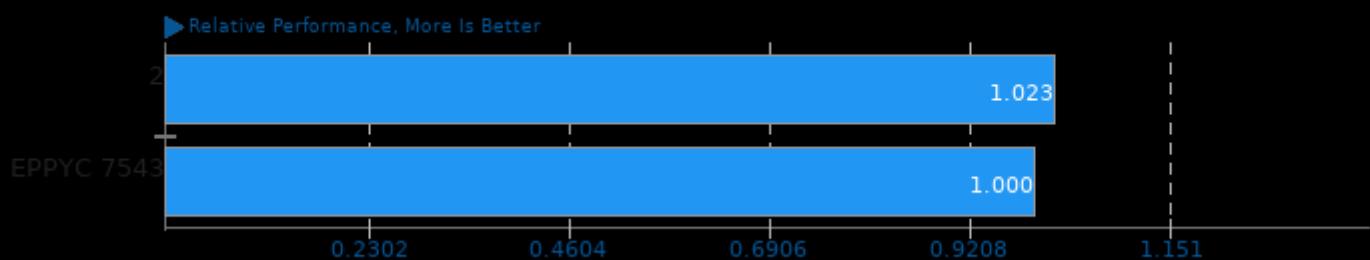
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/svt-vp9, pts/svt-hevc, pts/dav1d, pts/aom-av1 and pts/avifenc

## Geometric Mean Of Fortran Tests

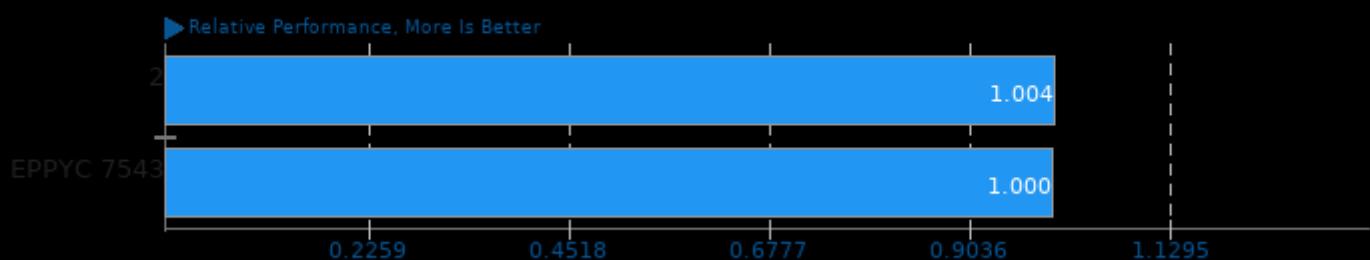
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/npb and pts/incompact3d

## Geometric Mean Of Game Development Tests

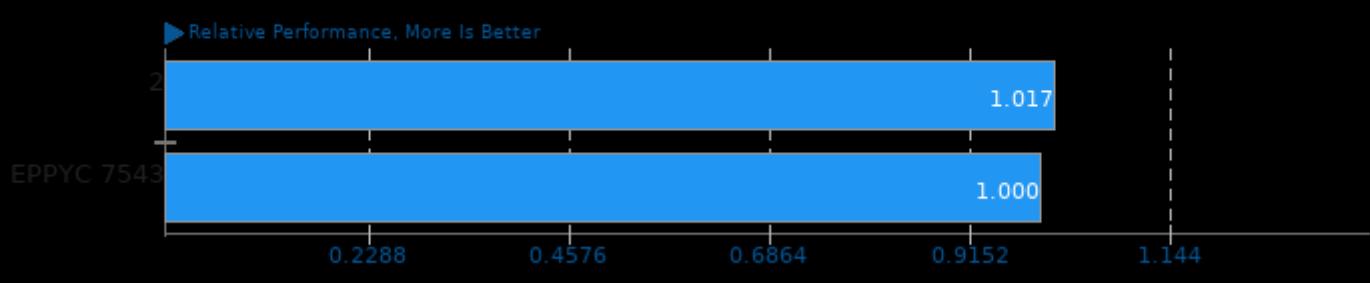
Result Composite - 7543 EPYC Ubuntu 21.04



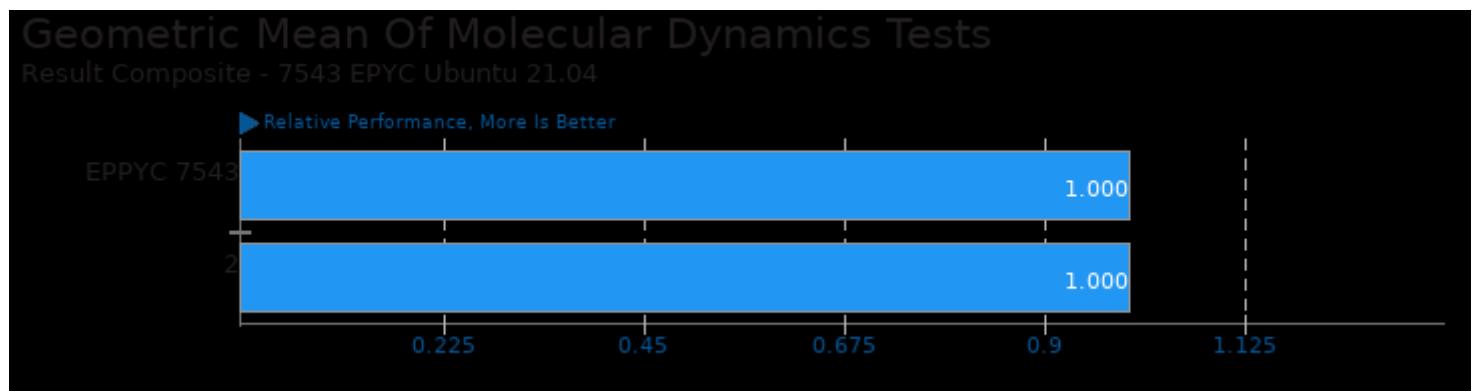
Geometric mean based upon tests: pts/astcenc, pts/toktx, pts/draco, pts/build-godot, pts/blender, pts/oidn and pts/openvkl

## Geometric Mean Of HPC - High Performance Computing Tests

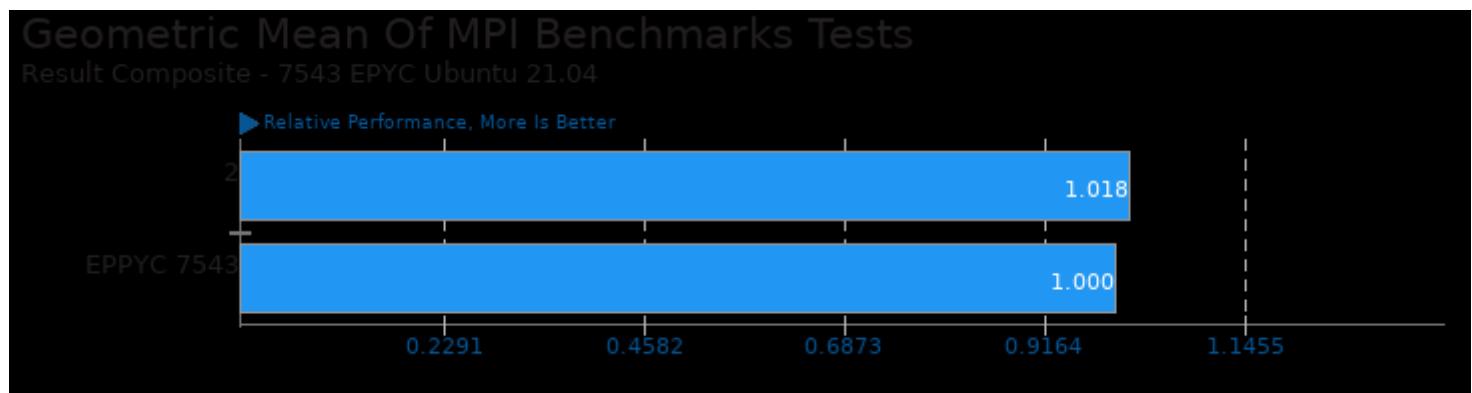
Result Composite - 7543 EPYC Ubuntu 21.04



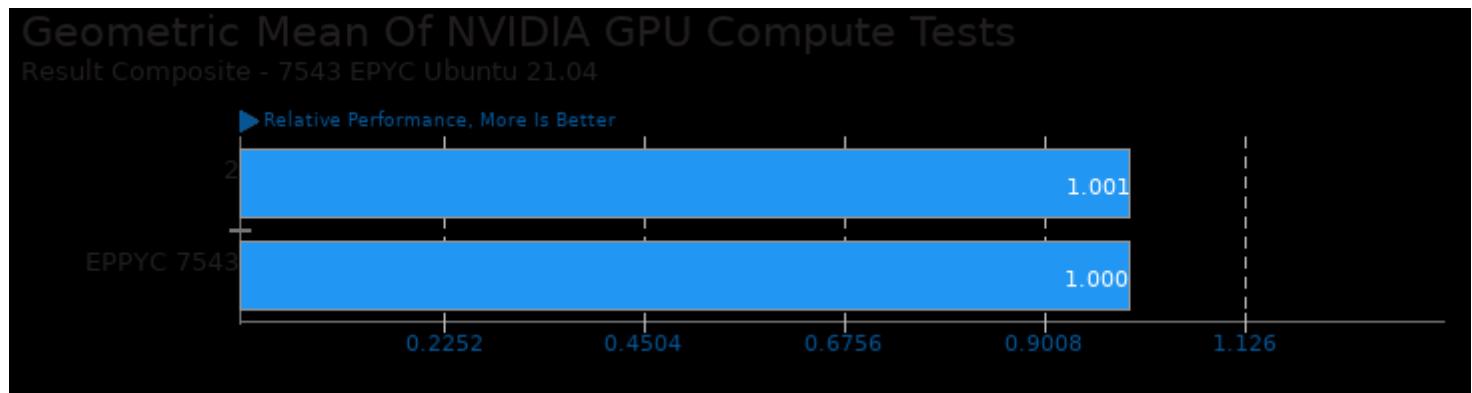
Geometric mean based upon tests: pts/npb, pts/namd, pts/gromacs, pts/pennant and pts/incompact3d



Geometric mean based upon tests: pts/namd, pts/gromacs, pts/pennant and pts/incompact3d



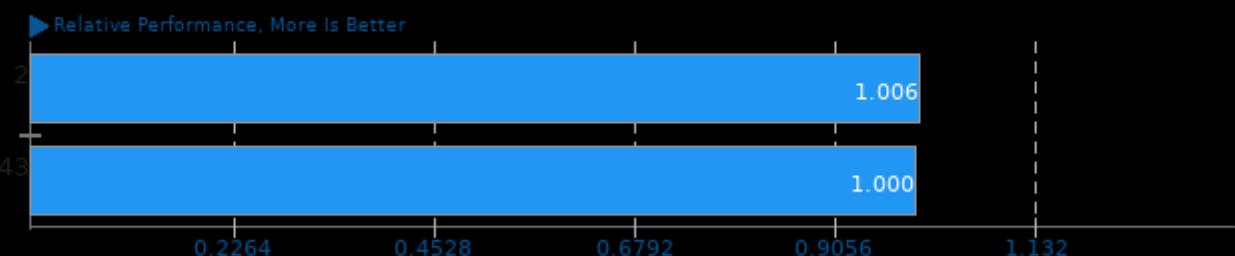
Geometric mean based upon tests: pts/incompact3d, pts/gromacs, pts/pennant and pts/npb



Geometric mean based upon tests: pts/gromacs, pts/luxcorerender and pts/blender

## Geometric Mean Of Intel oneAPI Tests

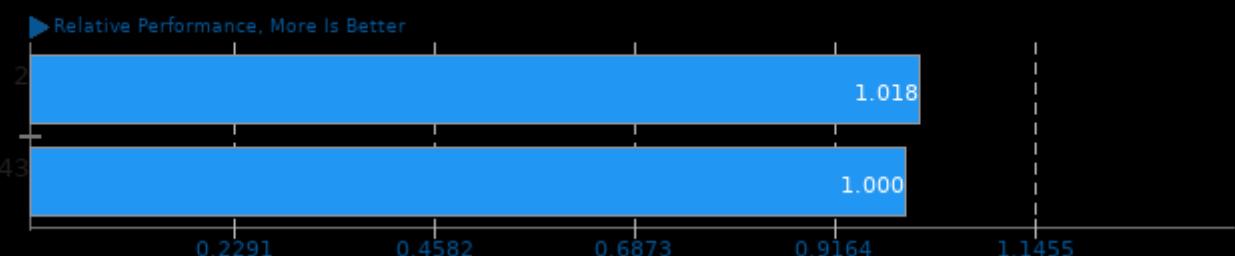
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/embree, pts/oidn and pts/openvkl

## Geometric Mean Of OpenMPI Tests

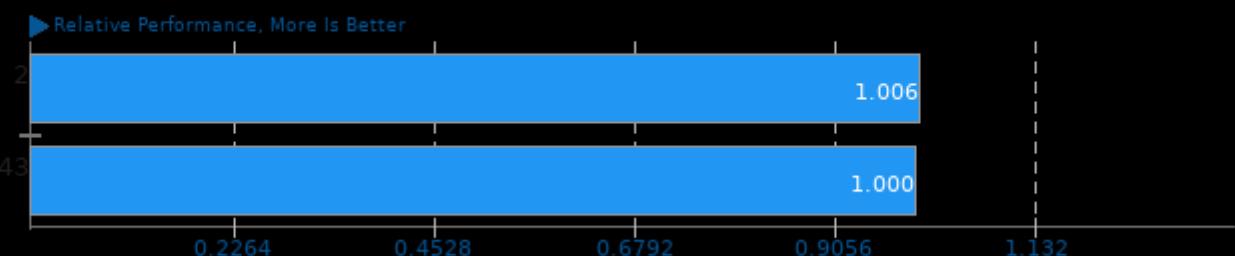
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/npb, pts/pennant, pts/incompact3d and pts/gromacs

## Geometric Mean Of Programmer / Developer System Benchmarks Tests

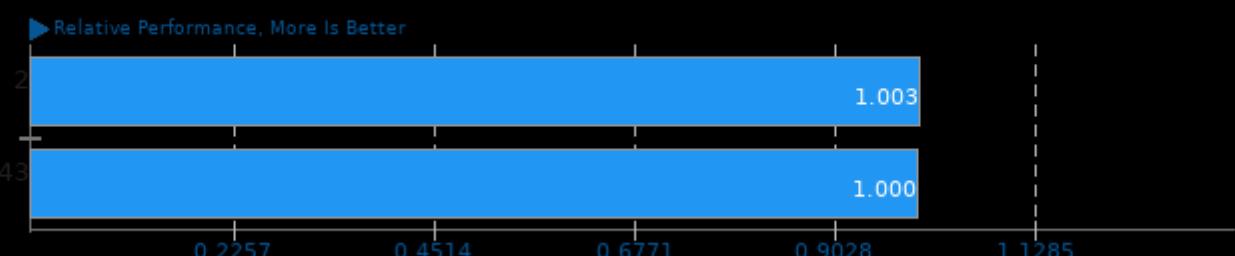
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/compress-zstd, pts/build-linux-kernel, pts/build-gdb, pts/build-llvm, pts/build-ffmpeg, pts/build-godot, pts/build-nodejs and pts/build-mesa

## Geometric Mean Of Python Tests

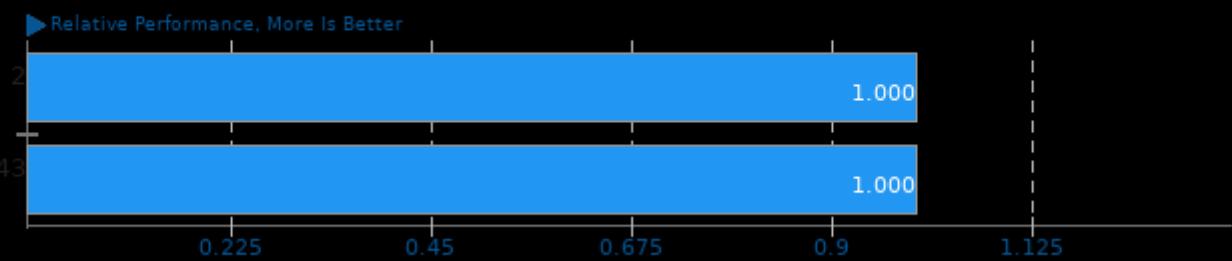
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/build-godot, pts/build-llvm, pts/build-mesa and pts/build-nodejs

### Geometric Mean Of Renderers Tests

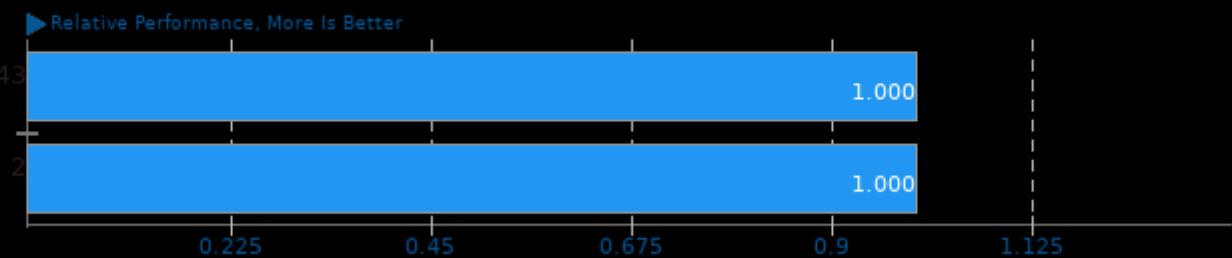
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/blender and pts/luxcorerender

### Geometric Mean Of Scientific Computing Tests

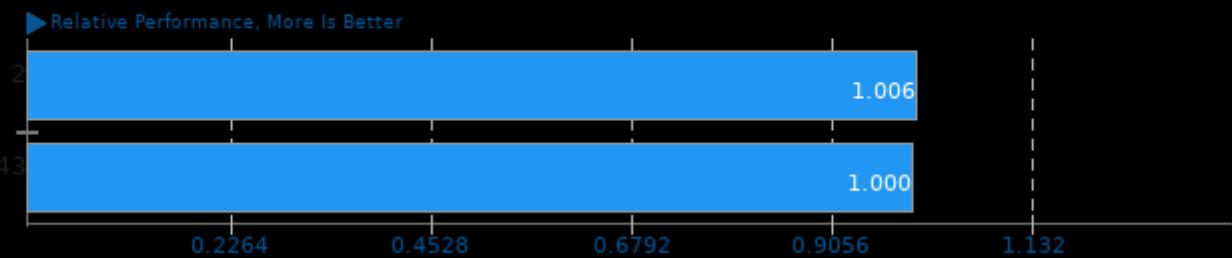
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/namd, pts/gromacs, pts/pennant and pts/incompact3d

### Geometric Mean Of Server CPU Tests

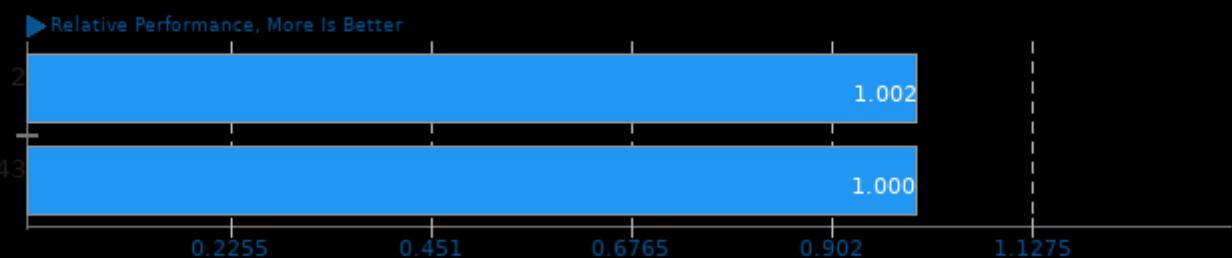
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/npb, pts/namd, pts/svt-hevc, pts/svt-vp9, pts/dav1d, pts/build-linux-kernel, pts/build-llvm, pts/compress-zstd and pts/blender

### Geometric Mean Of Texture Compression Tests

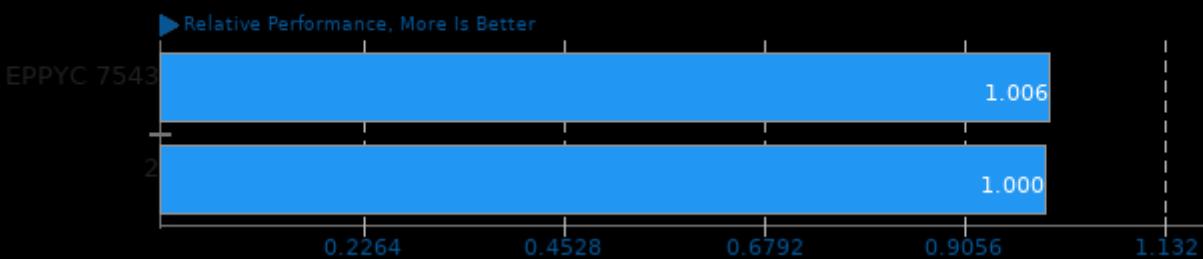
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/astcenc, pts/toktx and pts/draco

**Geometric Mean Of Video Encoding Tests**

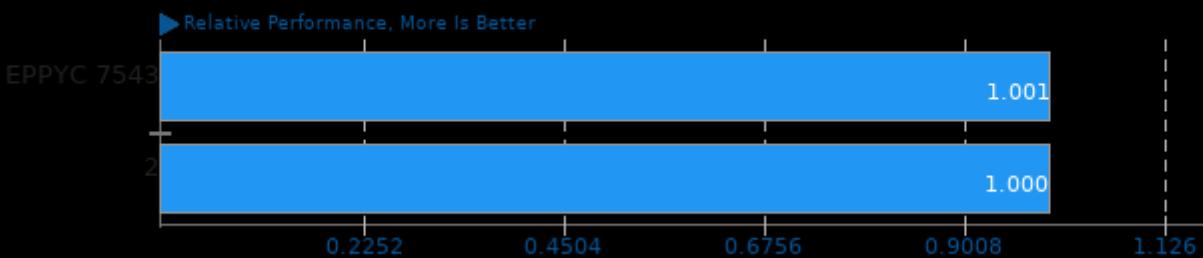
Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/svt-vp9, pts/svt-hevc, pts/dav1d, pts/aom-av1 and pts/avifenc

**Geometric Mean Of Common Workstation Benchmarks Tests**

Result Composite - 7543 EPYC Ubuntu 21.04



Geometric mean based upon tests: pts/blender and pts/brl-cad

*This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:59.*