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10900k june

Intel Core i9-10900K testing with a Gigabyte Z490 AORUS MASTER (F20d BIOS) and Gigabyte Intel UHD 630 CML GT2 3GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 40% of the tests.

Based on the geometric mean of all complete results, the fastest (3) was 1.003x the speed of the slowest (2). 1 was 0.998x the speed of 3 and 2 was 0.998x the speed of 1.

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

NAS Parallel Benchmarks (Test / Class: MG.C) at 1.108x

NAS Parallel Benchmarks (Test / Class: EP.D) at 1.101x

srsRAN (Test: OFDM_Test) at 1.086x

Zstd Compression (Compression Level: 8 - Compression Speed) at 1.064x

NCNN (Target: CPU-v2-v2 - Model: mobilenet-v2) at 1.058x

NCNN (Target: CPU - Model: shufflenet-v2) at 1.054x

NAS Parallel Benchmarks (Test / Class: FT.C) at 1.053x

Mobile Neural Network (Model: inception-v3) at 1.048x

srsRAN (Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM) at 1.047x

srsRAN (Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM) at 1.045x.

Test Systems:

1

2

3

Processor: Intel Core i9-10900K @ 5.30GHz (10 Cores / 20 Threads), Motherboard: Gigabyte Z490 AORUS MASTER (F20d BIOS), Chipset: Intel Comet Lake PCH, Memory: 16GB, Disk: Samsung SSD 970 EVO 500GB, Graphics: Gigabyte Intel UHD 630 CML GT2 3GB (1200MHz), Audio: Realtek ALC1220, Monitor: G237HL, Network: Intel Device 15f3 + Intel Wi-Fi 6 AX201

OS: Ubuntu 20.04, Kernel: 5.9.0-050900daily20201012-generic (x86_64), Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.0.8, OpenCL: OpenCL 2.1, Vulkan: 1.2.131, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale-gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEA/gcc-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v

Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xe2

Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IPB: conditional RSB filling + srbs: Not affected + tsx_async_abort: Not affected

	1	2	3
ASTC Encoder - Medium (sec)	4.0492	4.0720	4.0145
Normalized	99.14%	98.59%	100%
Standard Deviation		0.1%	1.4%
ASTC Encoder - Thorough (sec)	9.3677	9.3489	9.3285
Normalized	99.58%	99.78%	100%
Standard Deviation		0.2%	0.1%
ASTC Encoder - Exhaustive (sec)	50.2027	50.2359	50.2140
Normalized	100%	99.93%	99.98%
Standard Deviation		0.1%	0.1%
BRL-CAD - V.P.M (VGR Performance Metric)	187701	187547	187146
Normalized	100%	99.92%	99.7%
C-Blosc - blosclz (MB/s)	19606	19797	20064
Normalized	97.72%	98.67%	100%
Standard Deviation		0.3%	0.1%
dav1d - Chimera 1080p (FPS)	820.43	819.80	813.38

	Normalized	100%	99.92%	99.14%
	Standard Deviation		0.3%	0.2%
dav1d - Summer Nature 4K (FPS)	190.74		191.09	191.20
	Normalized	99.76%	99.94%	100%
	Standard Deviation		0.1%	0.1%
dav1d - S.N.1 (FPS)	770.57		770.74	767.77
	Normalized	99.98%	100%	99.61%
	Standard Deviation		0%	0.3%
dav1d - C.1.1.b (FPS)	491.13		490.72	492.52
	Normalized	99.72%	99.63%	100%
	Standard Deviation		0.4%	0%
Embree - Pathtracer - Crown (FPS)	14.343		14.2603	14.1407
	Normalized	100%	99.42%	98.59%
	Standard Deviation		1.3%	0.9%
Embree - Pathtracer ISPC - Crown (FPS)	16.0139		15.9522	15.9174
	Normalized	100%	99.61%	99.4%
	Standard Deviation		0.3%	0.4%
Embree - Pathtracer - Asian Dragon (FPS)	15.9307		15.8030	15.9659
	Normalized	99.78%	98.98%	100%
	Standard Deviation		0.9%	1.8%
Embree - Pathtracer - Asian Dragon Obj	14.7441		14.8025	14.8244
	Normalized	99.46%	99.85%	100%
	Standard Deviation		0.2%	0.2%
Embree - Pathtracer ISPC - Asian Dragon (FPS)	18.1986		18.5302	18.3283
	Normalized	98.21%	100%	98.91%
	Standard Deviation		1.2%	0.1%
Embree - Pathtracer ISPC - Asian Dragon Obj (FPS)	16.4077		16.3105	16.3384
	Normalized	100%	99.41%	99.58%
	Standard Deviation		0.1%	0.1%
GROMACS - MPI CPU - water_GMX50_bare (Ns/Day)	0.963		0.964	0.963
	Normalized	99.9%	100%	99.9%
	Standard Deviation		0.2%	0%
Intel Open Image Denoise -	0.46		0.46	0.46
RT.hdr_alb_nrm.3840x2160 (Images / Sec)				
	Standard Deviation		0.2%	0.1%
Intel Open Image Denoise -	0.46		0.46	0.46
RT.idr_alb_nrm.3840x2160 (Images / Sec)				
	Standard Deviation		0.1%	0.1%
Intel Open Image Denoise -	0.23		0.23	0.23
RTLightmap.hdr.4096x4096 (Images / Sec)				
	Standard Deviation		0%	0%
Mobile Neural Network - mobilenetV3 (ms)	1.601		1.637	1.629
	Normalized	100%	97.8%	98.28%
	Standard Deviation		1.7%	0.6%
Mobile Neural Network - squeezenetv1.1	3.083		3.173	3.060
	Normalized	99.25%	96.44%	100%
	Standard Deviation		2.7%	1%
Mobile Neural Network - resnet-v2-50 (ms)	29.415		29.754	29.488
	Normalized	100%	98.86%	99.75%
	Standard Deviation		1.3%	1.6%
Mobile Neural Network - SqueezeNetV1.0 (ms)	4.543		4.552	4.411

	Normalized	97.09%	96.9%	100%
	Standard Deviation	0.8%	1.7%	
Mobile Neural Network - MobileNetV2_224	3.151	2.909	2.783	
	Normalized	88.32%	95.67%	100%
	Standard Deviation	8.3%	0.4%	
Mobile Neural Network - mobilenet-v1-1.0	3.318	3.359	3.305	
	Normalized	99.61%	98.39%	100%
	Standard Deviation	1.7%	0.6%	
Mobile Neural Network - inception-v3 (ms)	29.905	29.321	28.533	
	Normalized	95.41%	97.31%	100%
	Standard Deviation	1%	1.4%	
NAS Parallel Benchmarks - BT.C (Mop/s)	26302	26240	26422	
	Normalized	99.54%	99.31%	100%
	Standard Deviation	0%	0.1%	
NAS Parallel Benchmarks - CG.C (Mop/s)	5554	5559	5627	
	Normalized	98.7%	98.78%	100%
	Standard Deviation	0.4%	0.1%	
NAS Parallel Benchmarks - EP.C (Mop/s)	1813	1791	1787	
	Normalized	100%	98.8%	98.57%
	Standard Deviation	2.7%	1.1%	
NAS Parallel Benchmarks - EP.D (Mop/s)	1839	1833	1670	
	Normalized	100%	99.68%	90.8%
	Standard Deviation	0.2%	3%	
NAS Parallel Benchmarks - FT.C (Mop/s)	12948	13117	12455	
	Normalized	98.71%	100%	94.95%
	Standard Deviation	0.2%	1.5%	
NAS Parallel Benchmarks - LU.C (Mop/s)	26905	26821	25911	
	Normalized	100%	99.69%	96.31%
	Standard Deviation	0.3%	0.2%	
NAS Parallel Benchmarks - MG.C (Mop/s)	11137	11121	10055	
	Normalized	100%	99.86%	90.28%
	Standard Deviation	0.1%	2.9%	
NAS Parallel Benchmarks - SP.B (Mop/s)	5354	5291	5127	
	Normalized	100%	98.82%	95.76%
	Standard Deviation	0.1%	2.9%	
NAS Parallel Benchmarks - SP.C (Mop/s)	4950	5048	5031	
	Normalized	98.06%	100%	99.67%
	Standard Deviation	0.2%	0%	
NCNN - CPU - mobilenet (ms)	15.69	15.77	15.78	
	Normalized	100%	99.49%	99.43%
	Standard Deviation	0.2%	0.5%	
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	4.3	4.43	4.55	
	Normalized	100%	97.07%	94.51%
	Standard Deviation	1.5%	3.9%	
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	3.39	3.48	3.47	
	Normalized	100%	97.41%	97.69%
	Standard Deviation	1.2%	1%	
NCNN - CPU - shufflenet-v2 (ms)	3.15	3.32	3.30	
	Normalized	100%	94.88%	95.45%
	Standard Deviation	1.7%	2.4%	
NCNN - CPU - mnasnet (ms)	3.34	3.37	3.41	
	Normalized	100%	99.11%	97.95%
	Standard Deviation	2.5%	1.2%	
NCNN - CPU - efficientnet-b0 (ms)	5.33	5.47	5.47	
	Normalized	100%	97.44%	97.44%

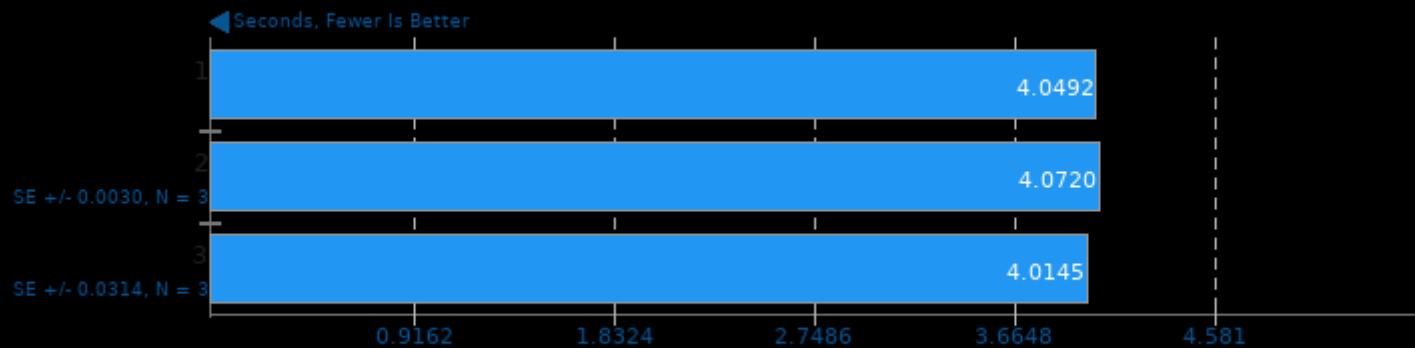
	Standard Deviation	1.7%	1%
NCNN - CPU - blazeface (ms)	1.42	1.44	1.44
Normalized	100%	98.61%	98.61%
Standard Deviation		2.2%	2%
NCNN - CPU - googlenet (ms)	12.61	12.72	12.63
Normalized	100%	99.14%	99.84%
Standard Deviation		0.4%	0.3%
NCNN - CPU - vgg16 (ms)	62.06	62.08	62.43
Normalized	100%	99.97%	99.41%
Standard Deviation		0.1%	0.1%
NCNN - CPU - resnet18 (ms)	13.71	13.68	13.68
Normalized	99.78%	100%	100%
Standard Deviation		0.3%	0.2%
NCNN - CPU - alexnet (ms)	12.34	12.33	12.30
Normalized	99.68%	99.76%	100%
Standard Deviation		0.3%	0.1%
NCNN - CPU - resnet50 (ms)	22.5	22.50	22.52
Normalized	100%	100%	99.91%
Standard Deviation		0.2%	0.4%
NCNN - CPU - yolov4-tiny (ms)	23.09	23.22	23.19
Normalized	100%	99.44%	99.57%
Standard Deviation		0.2%	0.2%
NCNN - CPU - squeezenet_ssd (ms)	17.57	17.57	17.57
Standard Deviation		0.2%	0.3%
NCNN - CPU - regnety_400m (ms)	8.43	8.64	8.53
Normalized	100%	97.57%	98.83%
Standard Deviation		0.2%	0.9%
srsRAN - OFDM_Test (Samples / Second)	127100000	122966667	133566667
Normalized	95.16%	92.06%	100%
Standard Deviation		2.2%	0.6%
srsRAN - 4.P.1.P.M.6.Q (eNb Mb/s)	418.5	414.1	431.9
Normalized	96.9%	95.88%	100%
Standard Deviation		0.5%	0.2%
srsRAN - 4.P.1.P.M.6.Q (UE Mb/s)	138.4	136.9	143.3
Normalized	96.58%	95.53%	100%
Standard Deviation		0.6%	0.2%
srsRAN - 4.P.1.P.S.6.Q (eNb Mb/s)	423.4	413.2	431.5
Normalized	98.12%	95.76%	100%
Standard Deviation		0.6%	1.5%
srsRAN - 4.P.1.P.S.6.Q (UE Mb/s)	244.1	238.6	248.1
Normalized	98.39%	96.17%	100%
Standard Deviation		0.4%	1.5%
srsRAN - 4.P.1.P.M.2.Q (eNb Mb/s)	461.1	456.3	472.3
Normalized	97.63%	96.61%	100%
Standard Deviation		0.3%	0.8%
srsRAN - 4.P.1.P.M.2.Q (UE Mb/s)	151.7	150.5	155.5
Normalized	97.56%	96.78%	100%
Standard Deviation		0.6%	1.1%
srsRAN - 4.P.1.P.S.2.Q (eNb Mb/s)	461.2	457.5	476.5
Normalized	96.79%	96.01%	100%
Standard Deviation		0.4%	0.3%
srsRAN - 4.P.1.P.S.2.Q (UE Mb/s)	292.3	288.8	301.8
Normalized	96.85%	95.69%	100%
Standard Deviation		0.1%	0.4%
srsRAN - 5.P.T.5.P.S.6.Q (eNb Mb/s)	142.2	142.1	146.9

	Normalized	96.8%	96.73%	100%
	Standard Deviation	0.1%	0.2%	
srsRAN - 5.P.T.5.P.S.6.Q (UE Mb/s)	68	67.8	70.4	
	Normalized	96.59%	96.31%	100%
	Standard Deviation	0.3%	0.1%	
srsRAN - 5.P.T.2.P.S.2.Q (eNb Mb/s)	158.3	156.4	161.0	
	Normalized	98.32%	97.14%	100%
	Standard Deviation	0.1%	0.9%	
srsRAN - 5.P.T.2.P.S.2.Q (UE Mb/s)	94.3	93.2	96.2	
	Normalized	98.02%	96.88%	100%
	Standard Deviation	0.2%	1.3%	
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	1.631	1.629	1.634	
	Normalized	99.82%	99.69%	100%
	Standard Deviation	0.4%	0.3%	
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	18.379	18.248	18.217	
	Normalized	100%	99.29%	99.12%
	Standard Deviation	0.5%	0.2%	
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	5.431	5.401	5.396	
	Normalized	100%	99.45%	99.36%
	Standard Deviation	1.1%	0.8%	
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	69.441	69.231	70.032	
	Normalized	99.16%	98.86%	100%
	Standard Deviation	0.4%	0.3%	
Timed FFmpeg Compilation - Time To Compile (sec)	48.51	48.332	48.405	
	Normalized	99.63%	100%	99.85%
	Standard Deviation	0.2%	0.3%	
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	56.595	56.064	56.263	
	Normalized	99.06%	100%	99.65%
	Standard Deviation	0.3%	0.5%	
TNN - CPU - DenseNet (ms)	2870	2882	2852	
	Normalized	99.37%	98.94%	100%
	Standard Deviation	3.7%	0.1%	
TNN - CPU - MobileNet v2 (ms)	286.226	284.087	285.361	
	Normalized	99.25%	100%	99.55%
	Standard Deviation	0.3%	1.3%	
TNN - CPU - SqueezeNet v2 (ms)	58.661	58.722	58.734	
	Normalized	100%	99.9%	99.88%
	Standard Deviation	0.1%	0.1%	
TNN - CPU - SqueezeNet v1.1 (ms)	262.424	261.693	261.967	
	Normalized	99.72%	100%	99.9%
	Standard Deviation	0%	0%	
VP9 libvpx Encoding - Speed 0 - Bosphorus 4K (FPS)	6.32	6.38	6.38	
	Normalized	99.06%	100%	100%
	Standard Deviation	0.1%	0.9%	
VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)	15.28	15.40	15.24	
	Normalized	99.22%	100%	98.96%
	Standard Deviation	2%	1.3%	
VP9 libvpx Encoding - Speed 0 - Bosphorus 1080p (FPS)	14.18	14.19	14.19	
	Normalized	99.93%	100%	100%
	Standard Deviation	0.2%	0.4%	

VP9 libvpx Encoding - Speed 5 - Bosphorus	30.42	30.99	30.39
1080p (FPS)			
Normalized	98.16%	100%	98.06%
Standard Deviation		0.2%	0.2%
Zstd Compression - 3 - Compression Speed	2271	2348	2307
(MB/s)			
Normalized	96.73%	100%	98.26%
Standard Deviation		0.9%	1.4%
Zstd Compression - 3 - D.S (MB/s)	4137	4263	4249
Normalized	97.03%	100%	99.66%
Standard Deviation		0.1%	0.6%
Zstd Compression - 8 - Compression Speed	177.6	189.0	186.3
(MB/s)			
Normalized	93.97%	100%	98.57%
Standard Deviation		3%	2.9%
Zstd Compression - 8 - D.S (MB/s)	4157	4318	4244
Normalized	96.27%	100%	98.27%
Standard Deviation		1.4%	0.9%
Zstd Compression - 19 - Compression Speed	32.9	33.0	33.3
(MB/s)			
Normalized	98.8%	99.1%	100%
Standard Deviation		1.6%	0%
Zstd Compression - 19 - D.S (MB/s)	3870	3813	3758
Normalized	100%	98.51%	97.1%
Standard Deviation		1.1%	0.3%
Zstd Compression - 3, Long Mode -	1320	1308	1312
Compression Speed (MB/s)			
Normalized	100%	99.1%	99.39%
Standard Deviation		0.6%	0.6%
Zstd Compression - 3, Long Mode - D.S	4556	4499	4546
Normalized	100%	98.74%	99.79%
Standard Deviation		0.5%	0.2%
Zstd Compression - 8, Long Mode -	528.8	546.5	527.3
Compression Speed (MB/s)			
Normalized	96.76%	100%	96.49%
Standard Deviation		2.8%	3%
Zstd Compression - 8, Long Mode - D.S	4653	4654	4644
Normalized	99.99%	100%	99.79%
Standard Deviation		0.1%	0.4%
Zstd Compression - 19, Long Mode -	29.7	29.3	29.0
Compression Speed (MB/s)			
Normalized	100%	98.65%	97.64%
Standard Deviation		0.5%	1.6%
Zstd Compression - 19, Long Mode - D.S	3836	3824	3885
(MB/s)			
Normalized	98.74%	98.43%	100%
Standard Deviation		0.5%	1.6%

ASTC Encoder 3.0

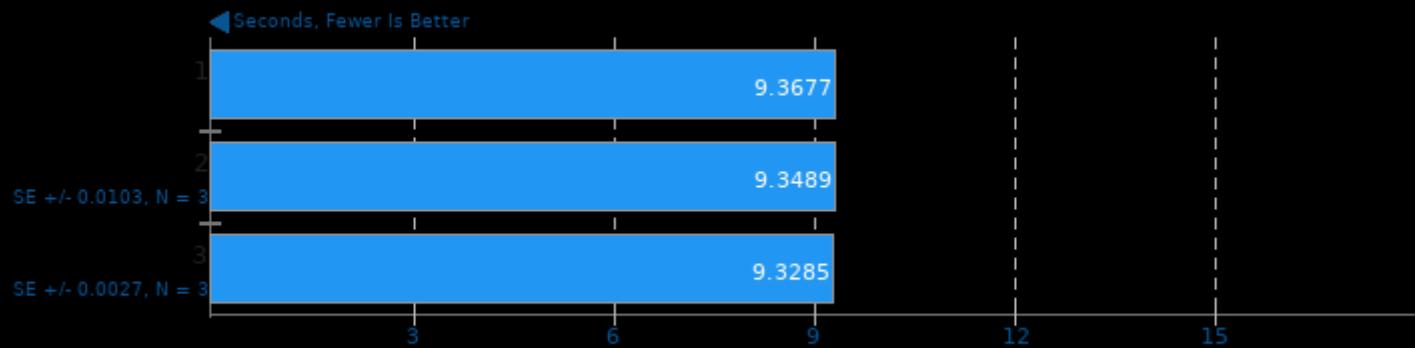
Preset: Medium



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

ASTC Encoder 3.0

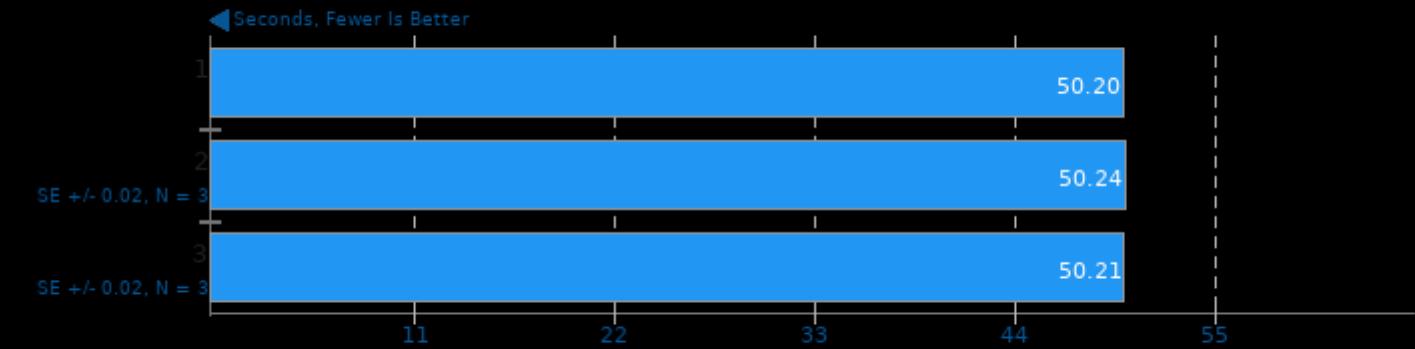
Preset: Thorough



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

ASTC Encoder 3.0

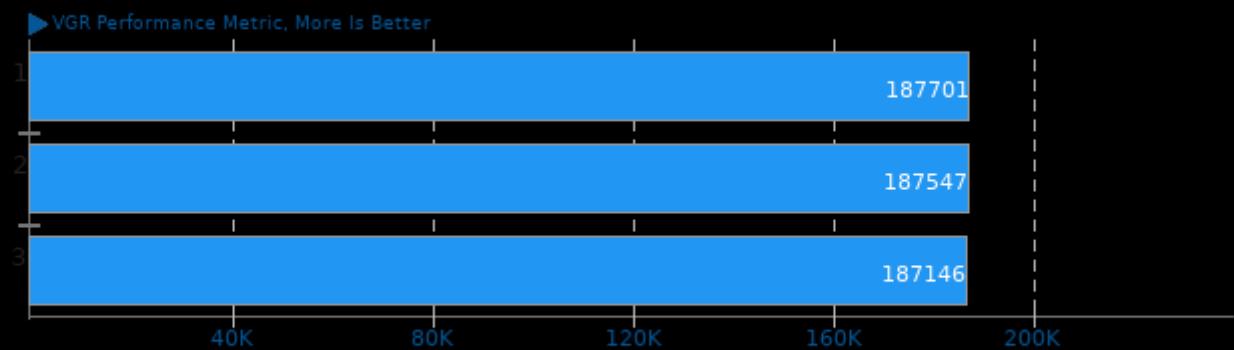
Preset: Exhaustive



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

BRL-CAD 7.32.2

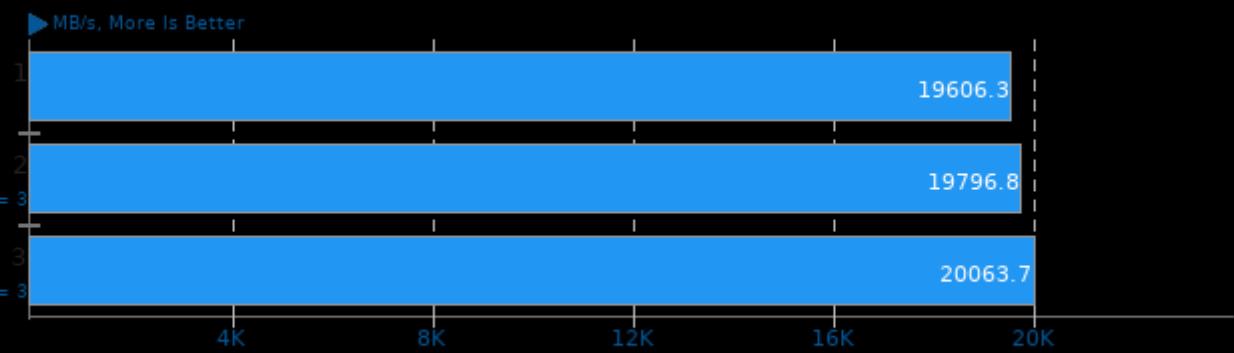
VGR Performance Metric



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

C-Blosc 2.0

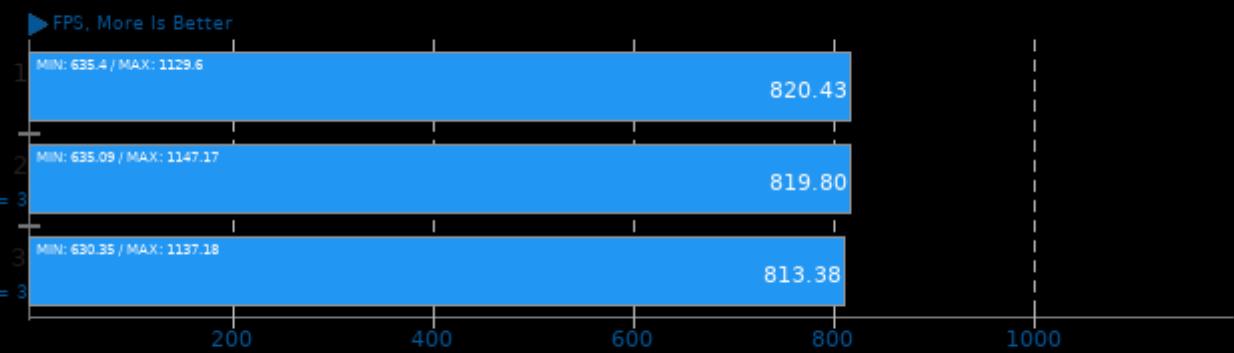
Compressor: blosclz



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

dav1d 0.9.0

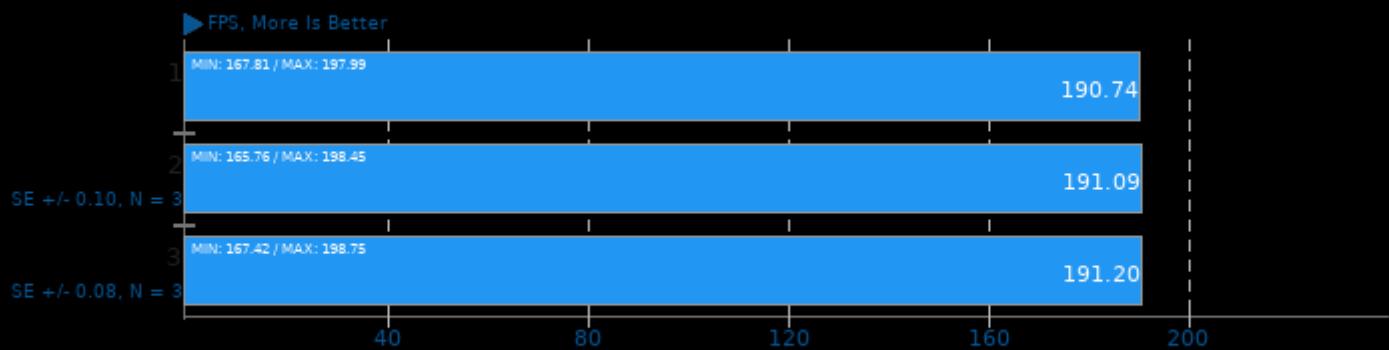
Video Input: Chimera 1080p



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

dav1d 0.9.0

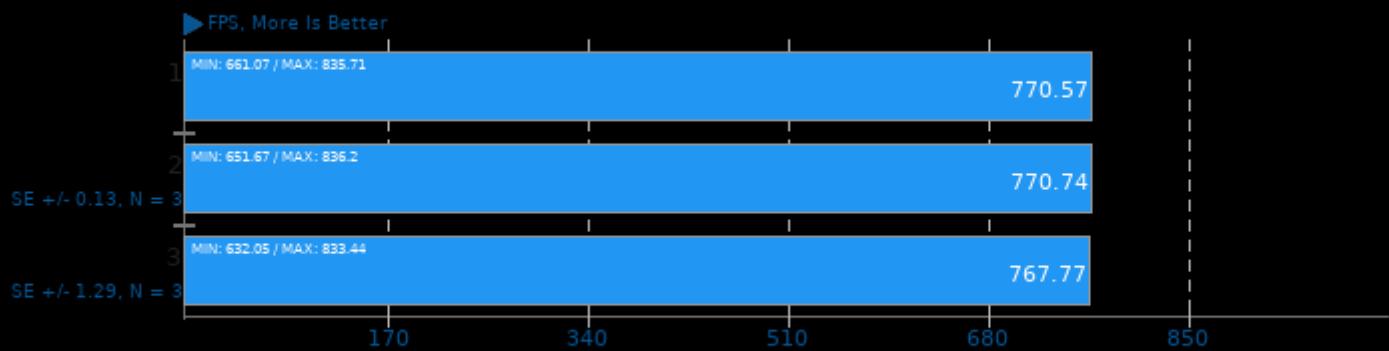
Video Input: Summer Nature 4K



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

dav1d 0.9.0

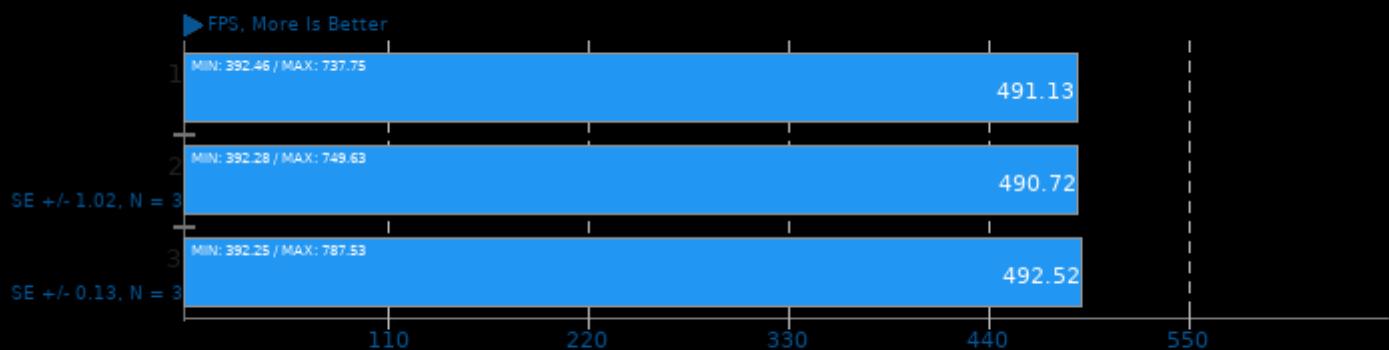
Video Input: Summer Nature 1080p



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

dav1d 0.9.0

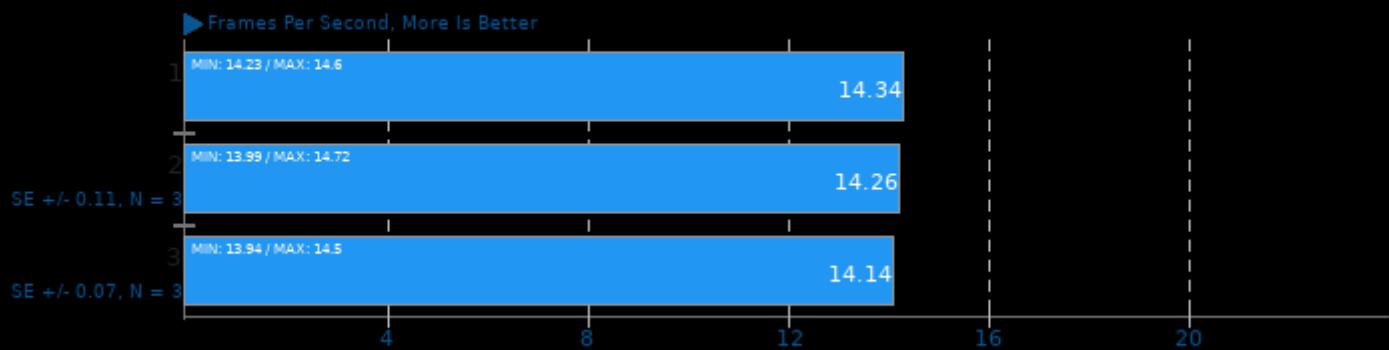
Video Input: Chimera 1080p 10-bit



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

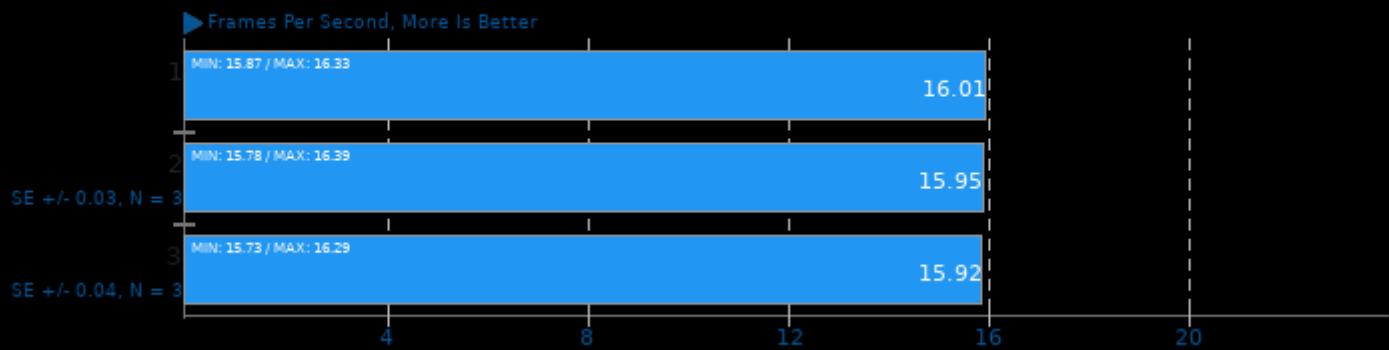
Embree 3.13

Binary: Pathtracer - Model: Crown



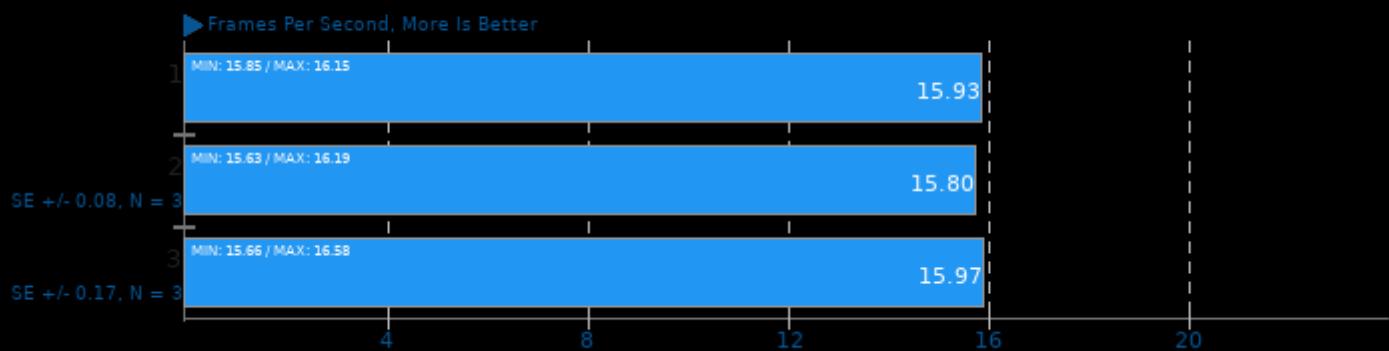
Embree 3.13

Binary: Pathtracer ISPC - Model: Crown



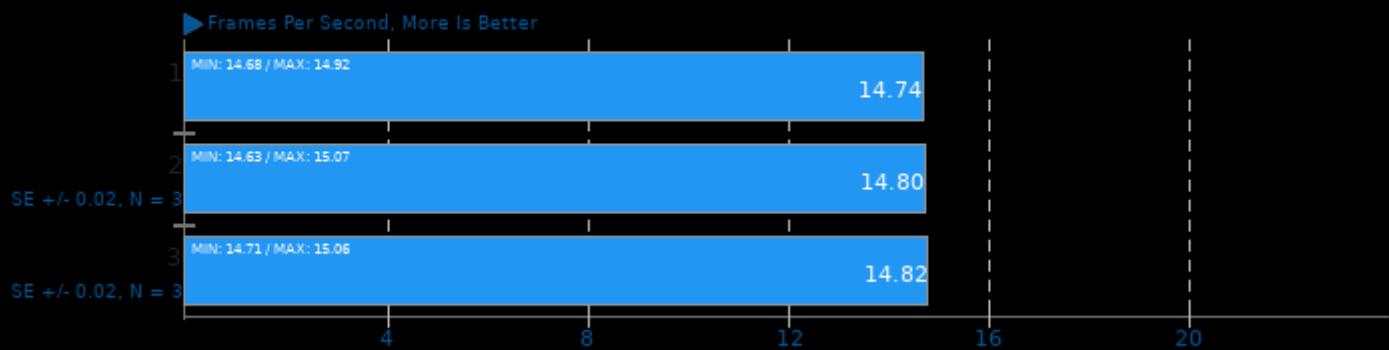
Embree 3.13

Binary: Pathtracer - Model: Asian Dragon



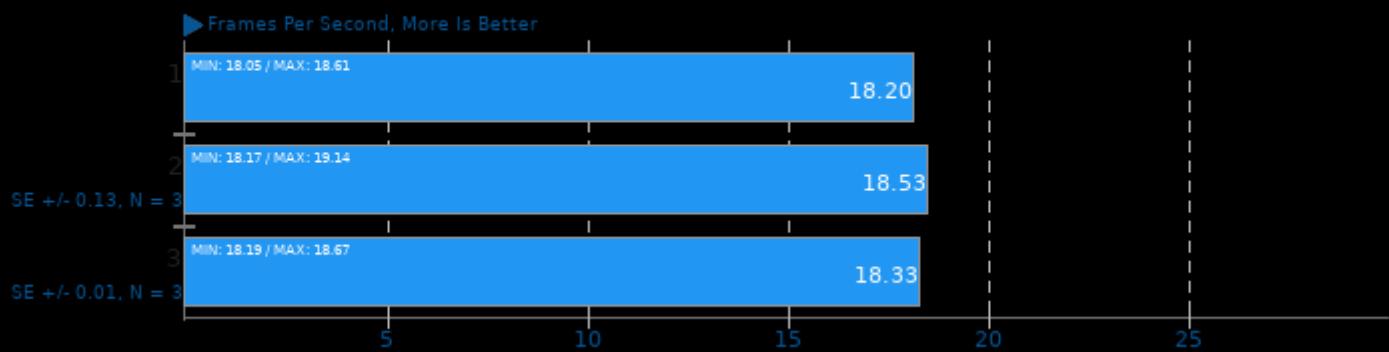
Embree 3.13

Binary: Pathtracer - Model: Asian Dragon Obj



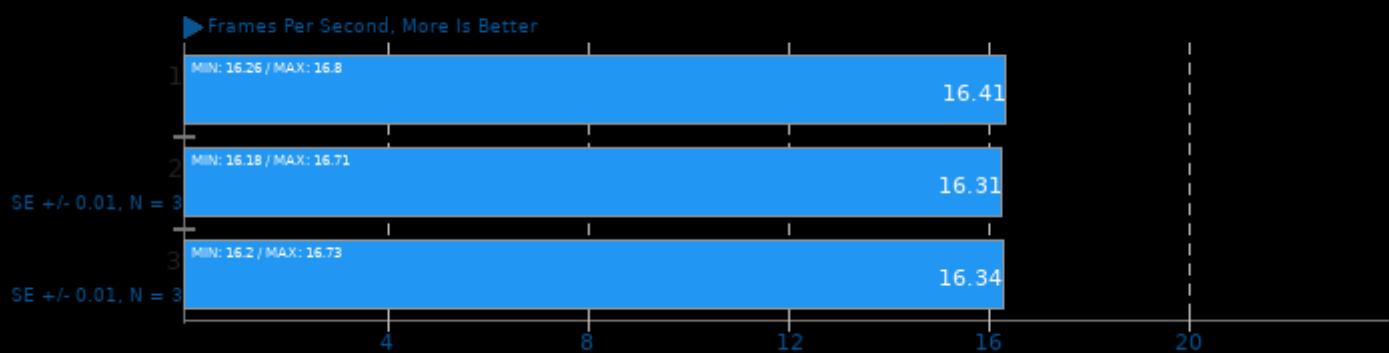
Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon



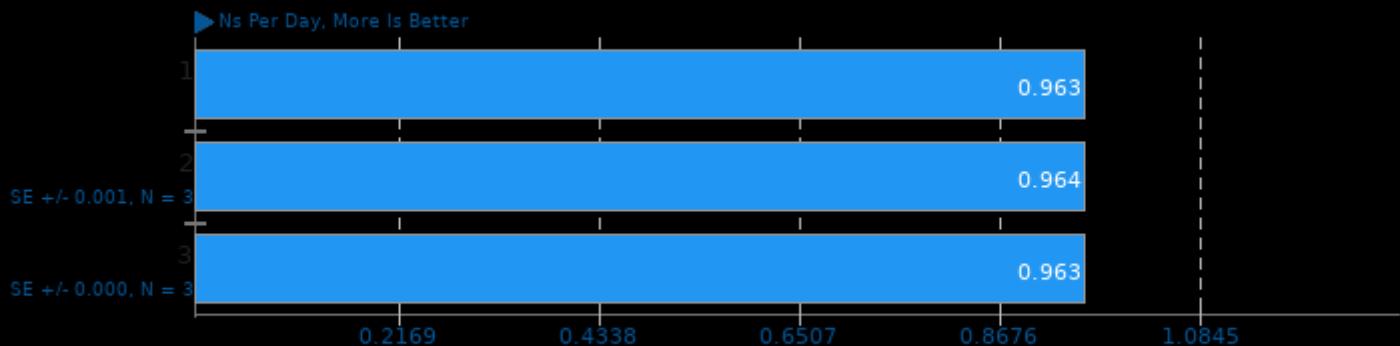
Embree 3.13

Binary: Pathtracer ISPC - Model: Asian Dragon Obj



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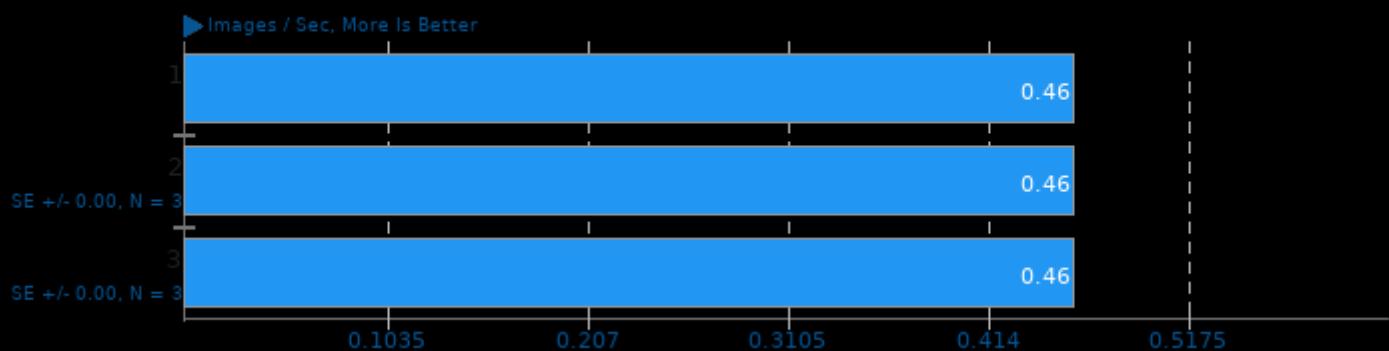
Implementation: MPI CPU - Input: water_GMX50_bare



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

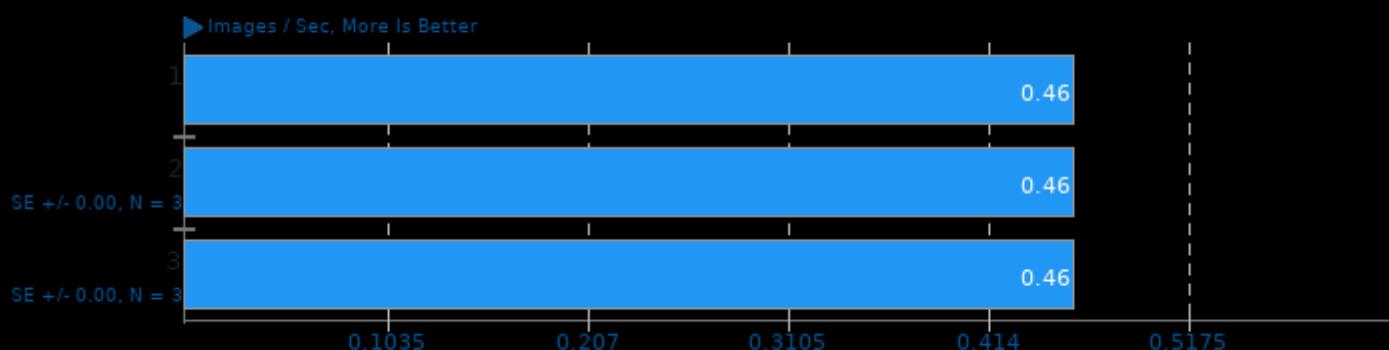
Intel Open Image Denoise 1.4.0

Run: RT.hdr_alb_nrm.3840x2160



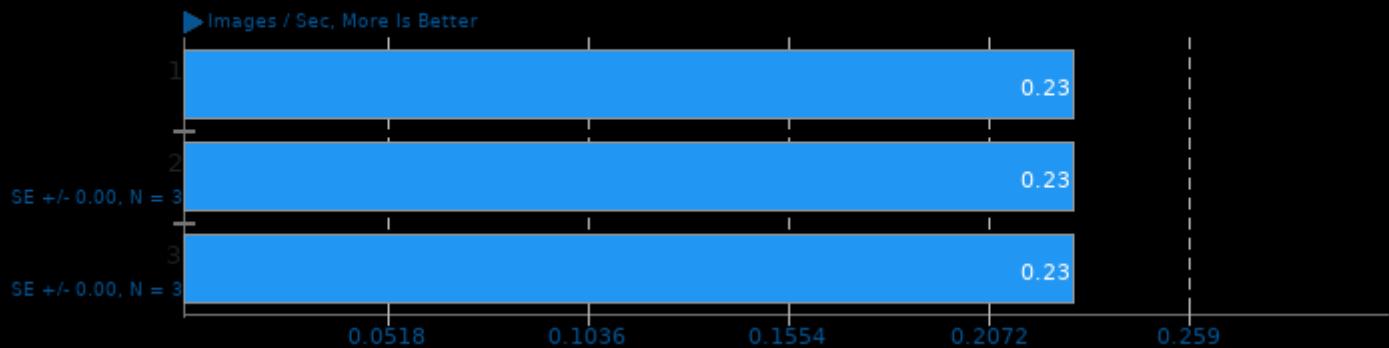
Intel Open Image Denoise 1.4.0

Run: RT.idr_alb_nrm.3840x2160



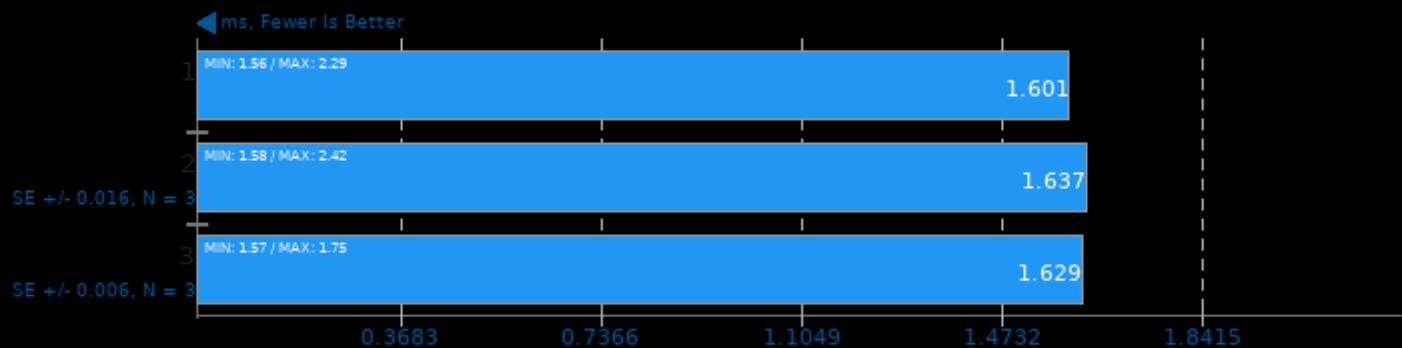
Intel Open Image Denoise 1.4.0

Run: RTLightmap.hdr.4096x4096



Mobile Neural Network 1.2

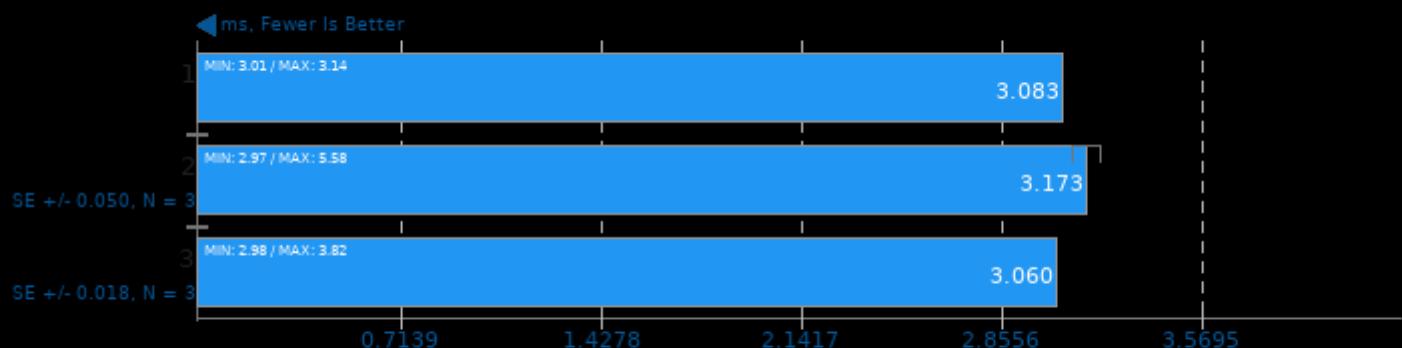
Model: mobilenetV3



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

Mobile Neural Network 1.2

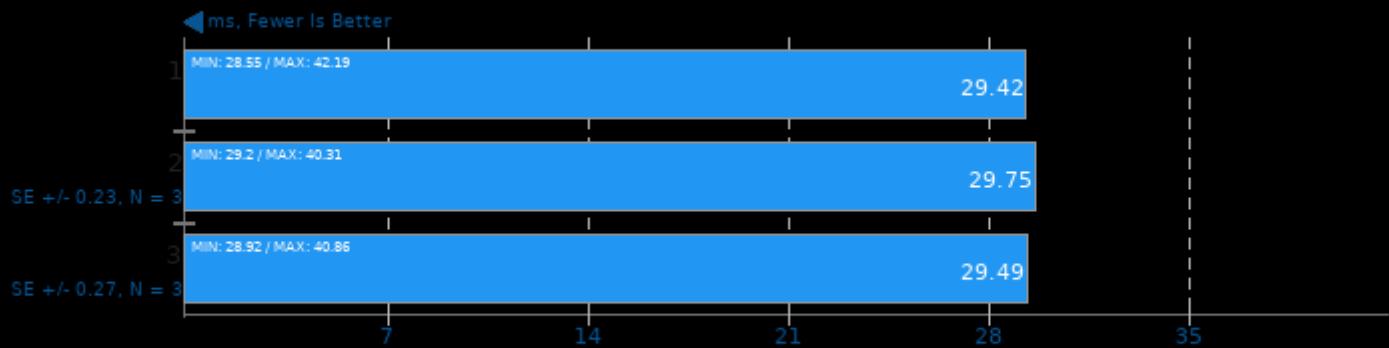
Model: squeezenetv1.1



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

Mobile Neural Network 1.2

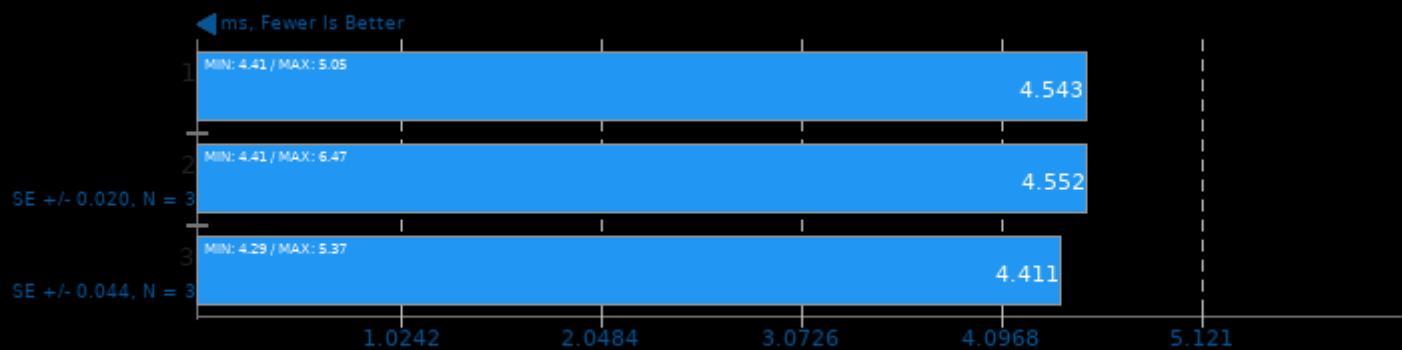
Model: resnet-v2-50



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

Mobile Neural Network 1.2

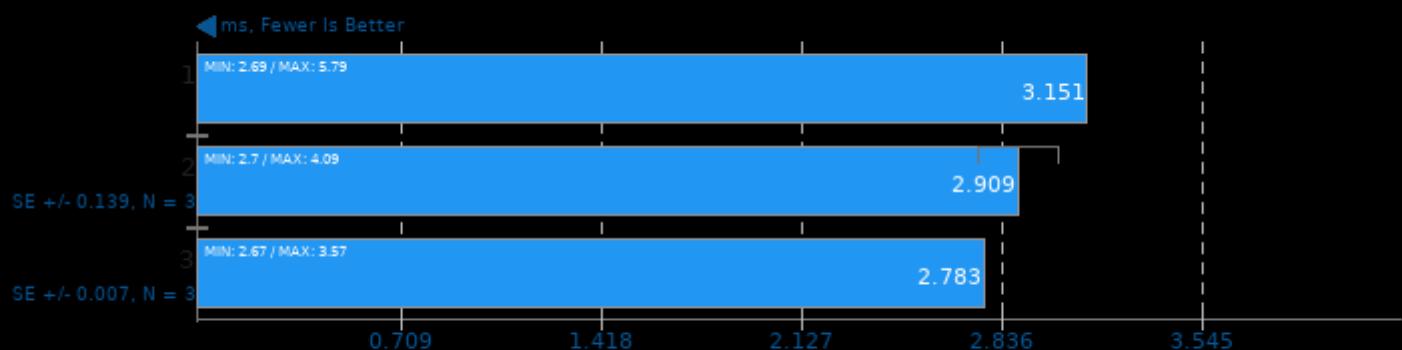
Model: SqueezeNetV1.0



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

Mobile Neural Network 1.2

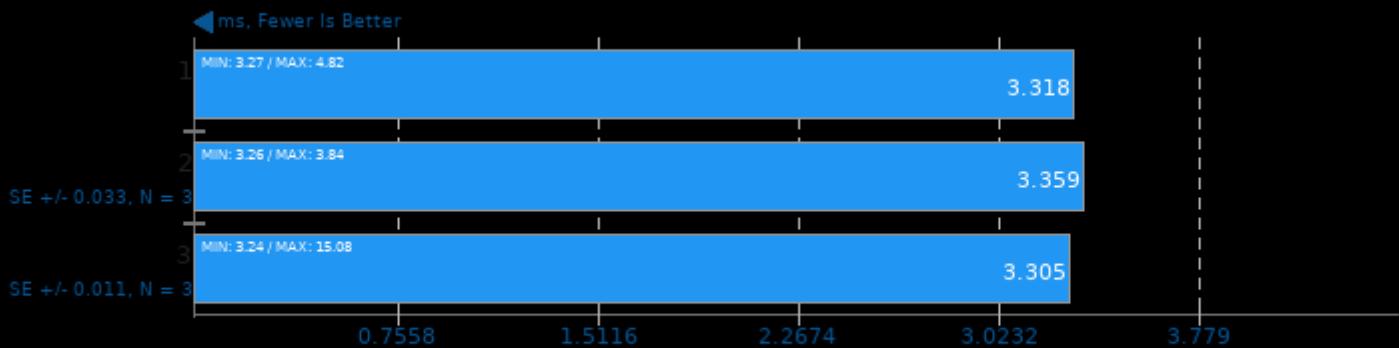
Model: MobileNetV2_224



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

Mobile Neural Network 1.2

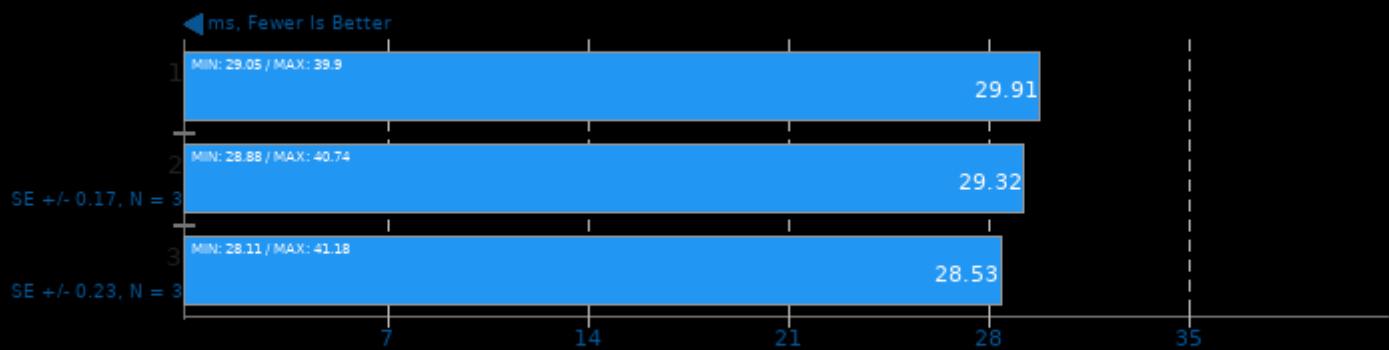
Model: mobilenet-v1-1.0



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

Mobile Neural Network 1.2

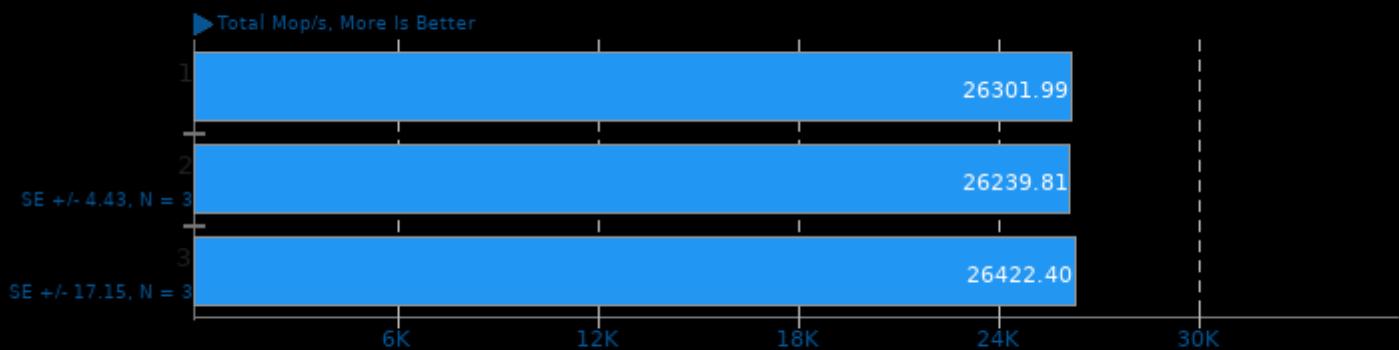
Model: inception-v3



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

NAS Parallel Benchmarks 3.4

Test / Class: BT.C

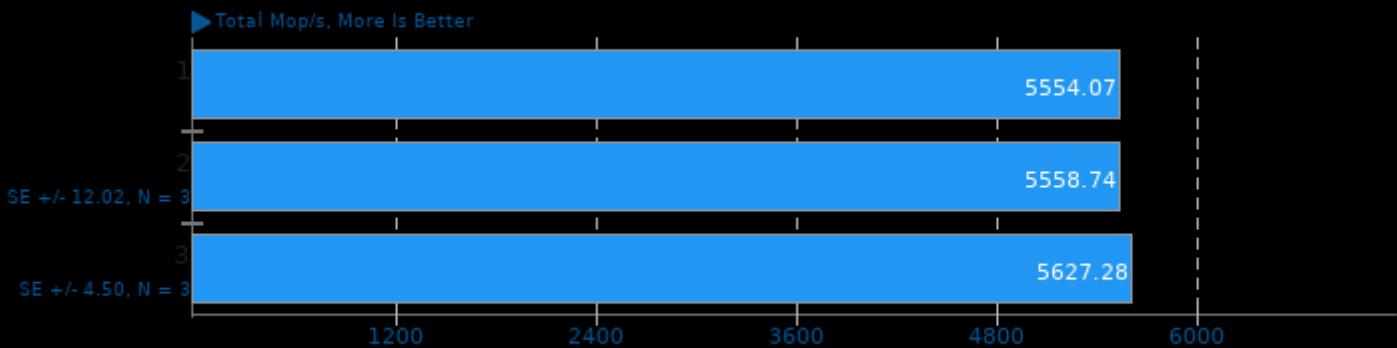


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: CG.C

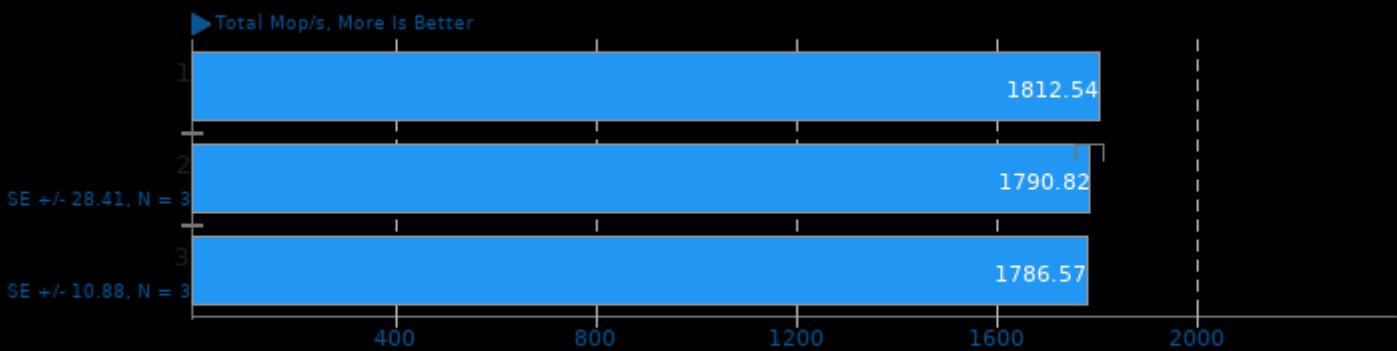


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: EP.C

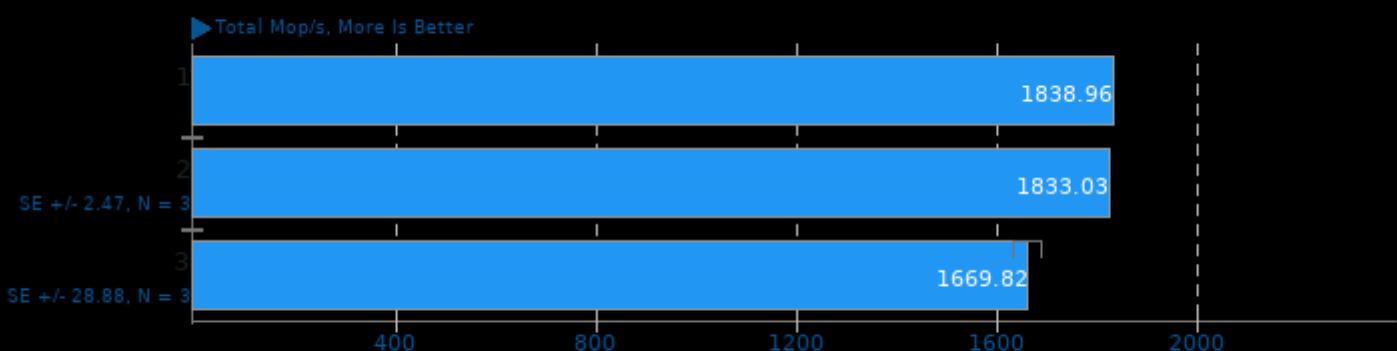


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: EP.D

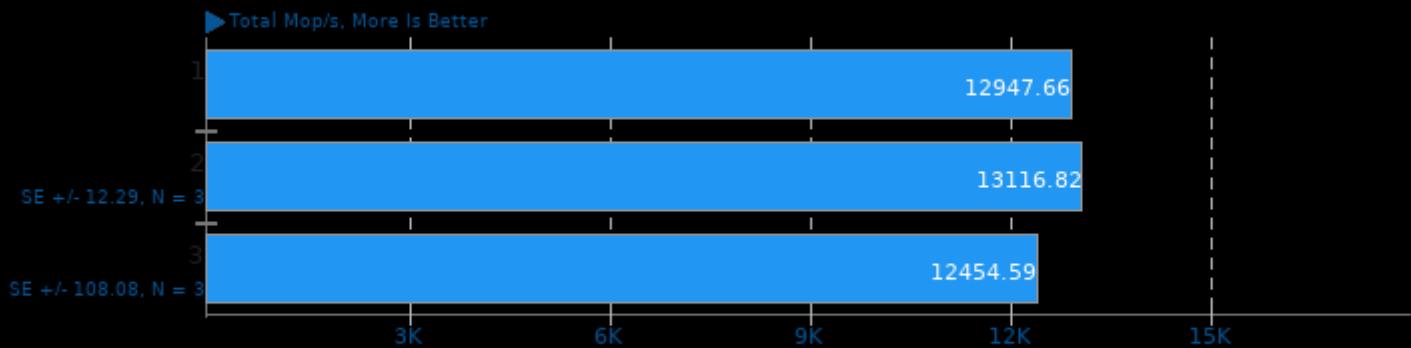


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: FT.C

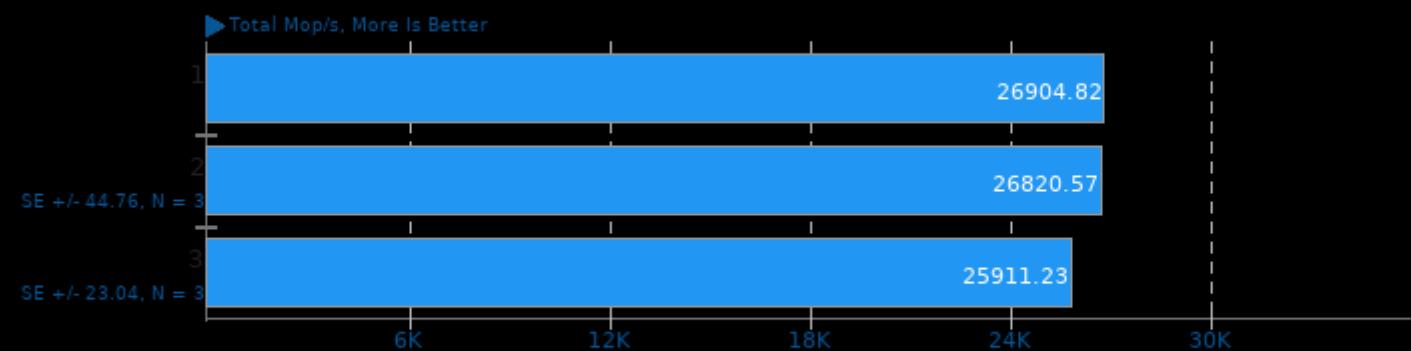


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: LU.C

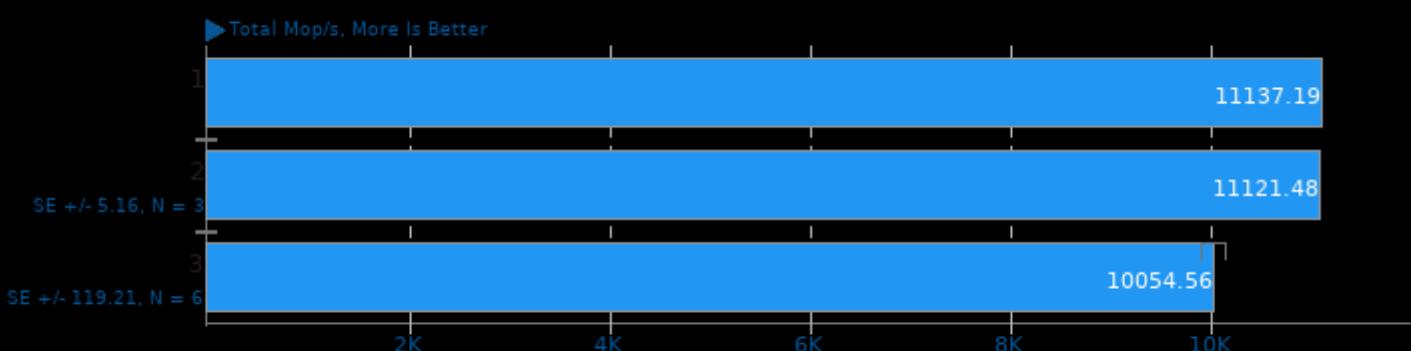


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: MG.C

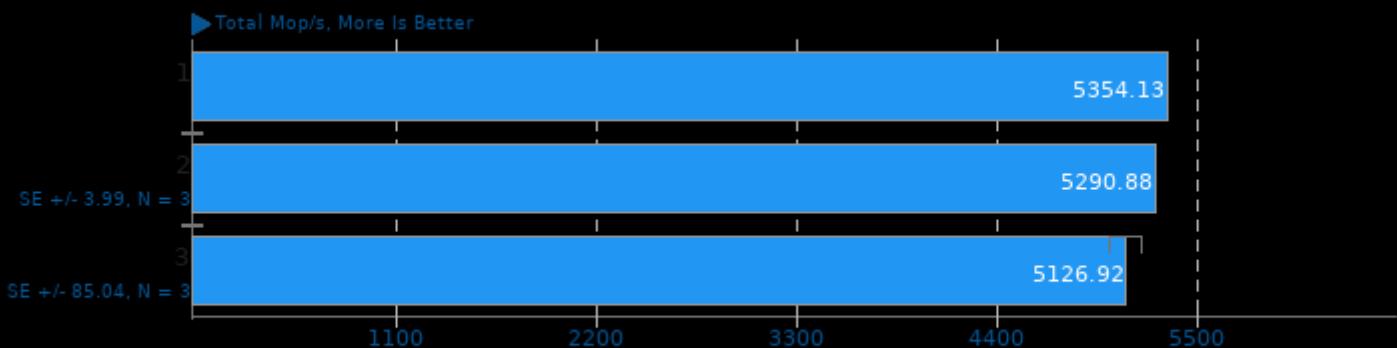


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: SP.B

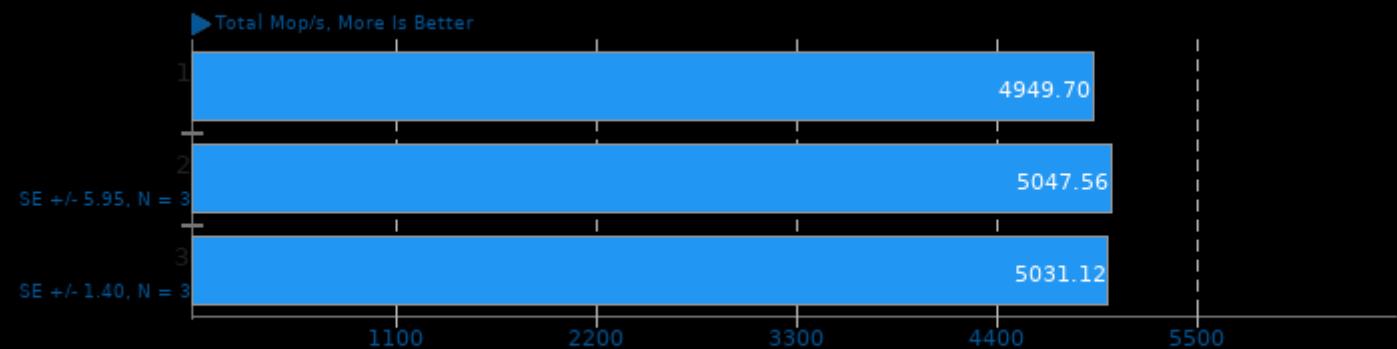


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NAS Parallel Benchmarks 3.4

Test / Class: SP.C

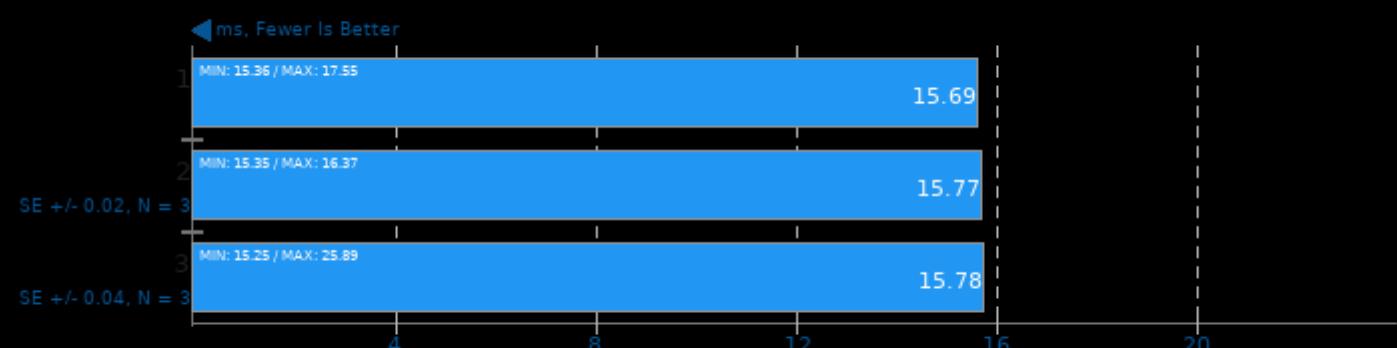


1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi

2. Open MPI 4.0.3

NCNN 20210525

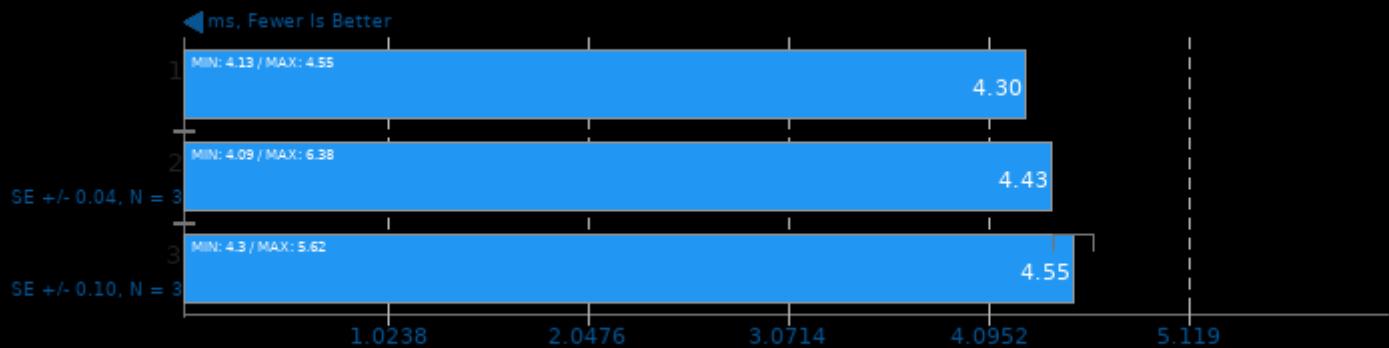
Target: CPU - Model: mobilenet



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

NCNN 20210525

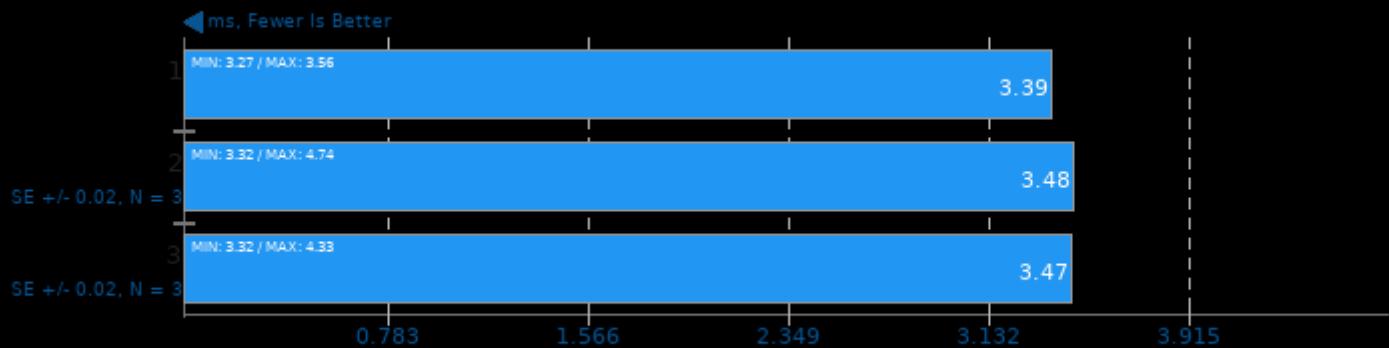
Target: CPU-v2-v2 - Model: mobilenet-v2



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

NCNN 20210525

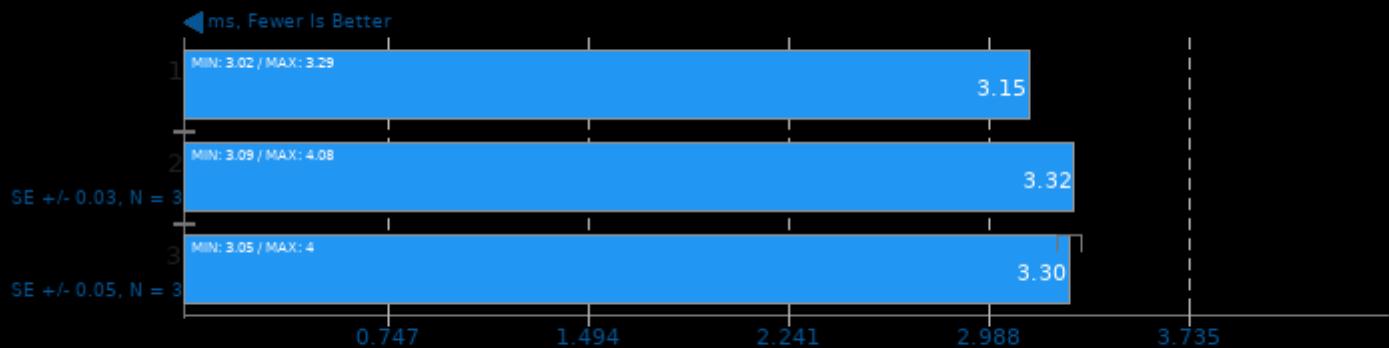
Target: CPU-v3-v3 - Model: mobilenet-v3



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

NCNN 20210525

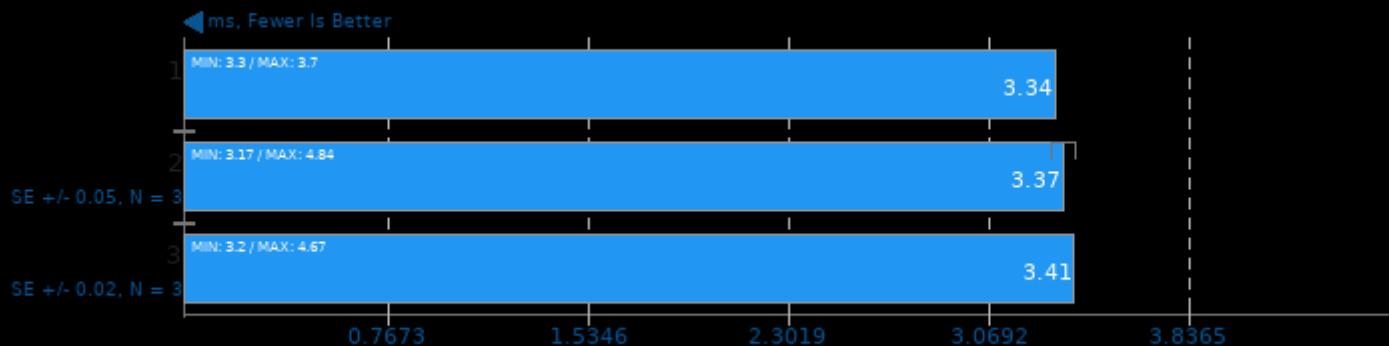
Target: CPU - Model: shufflenet-v2



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

NCNN 20210525

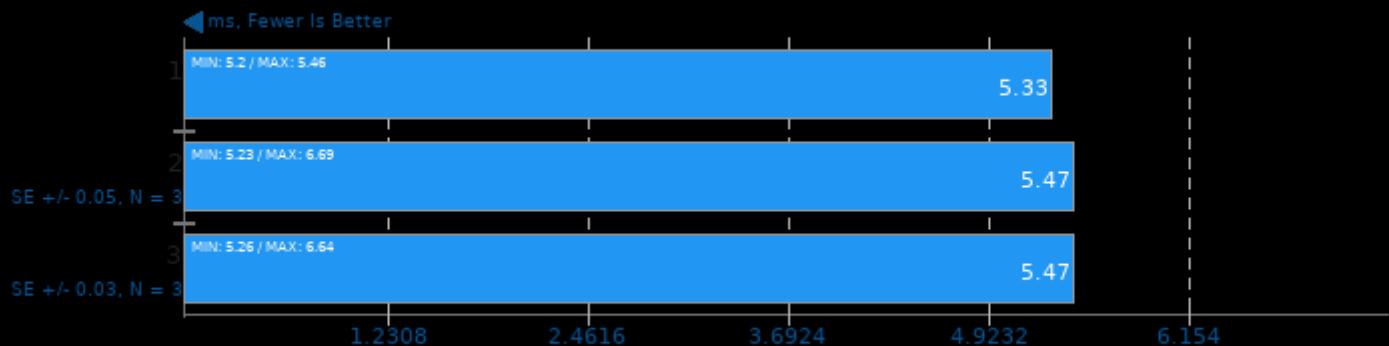
Target: CPU - Model: mnasnet



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

NCNN 20210525

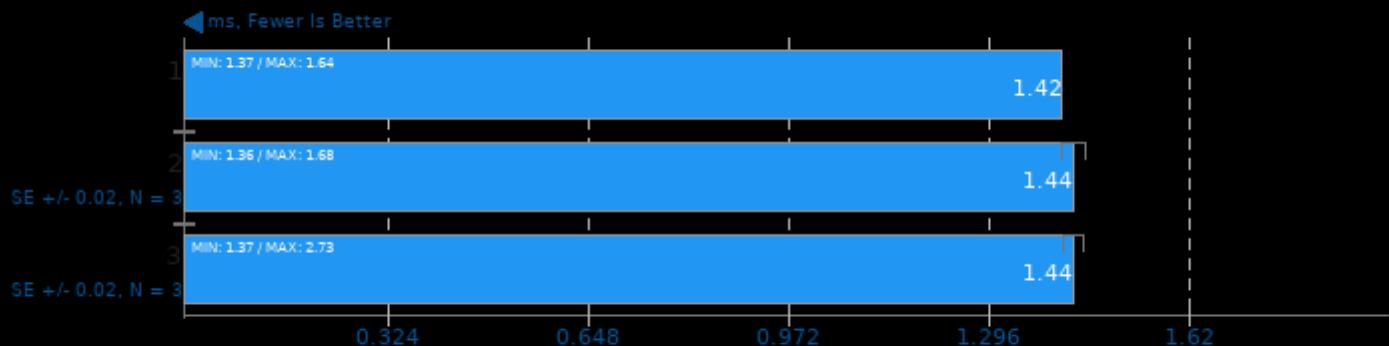
Target: CPU - Model: efficientnet-b0



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

NCNN 20210525

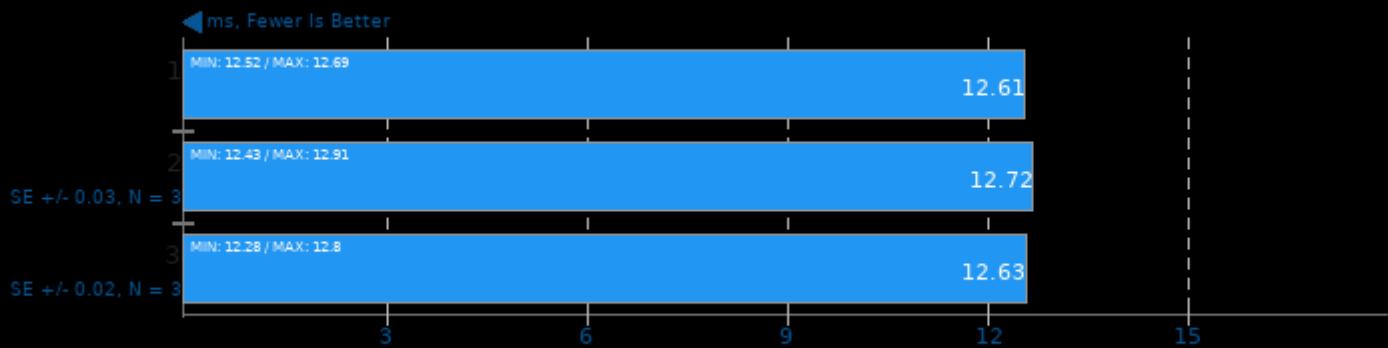
Target: CPU - Model: blazeface



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

NCNN 20210525

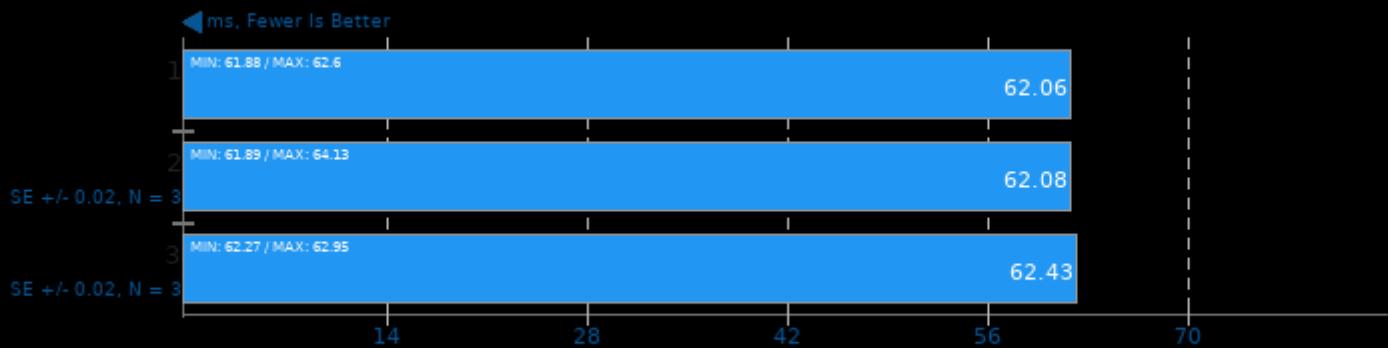
Target: CPU - Model: googlenet



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

NCNN 20210525

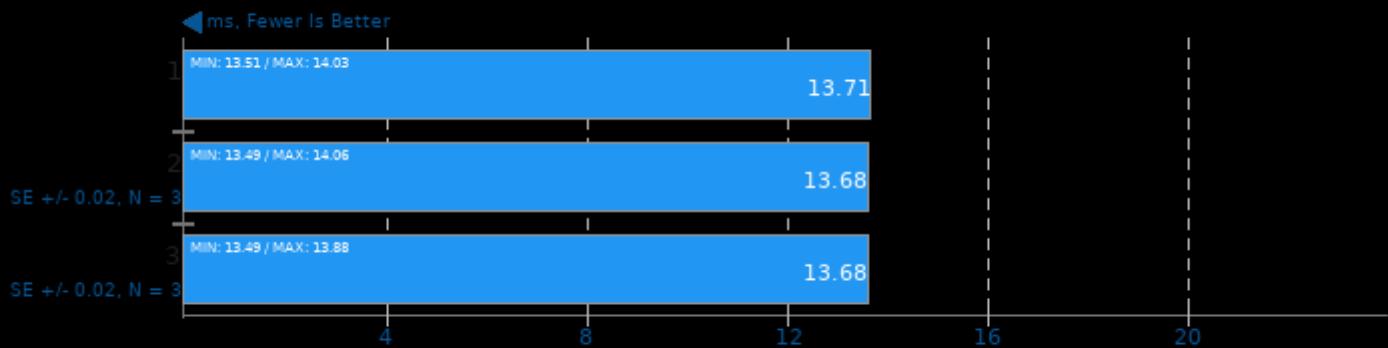
Target: CPU - Model: vgg16



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

NCNN 20210525

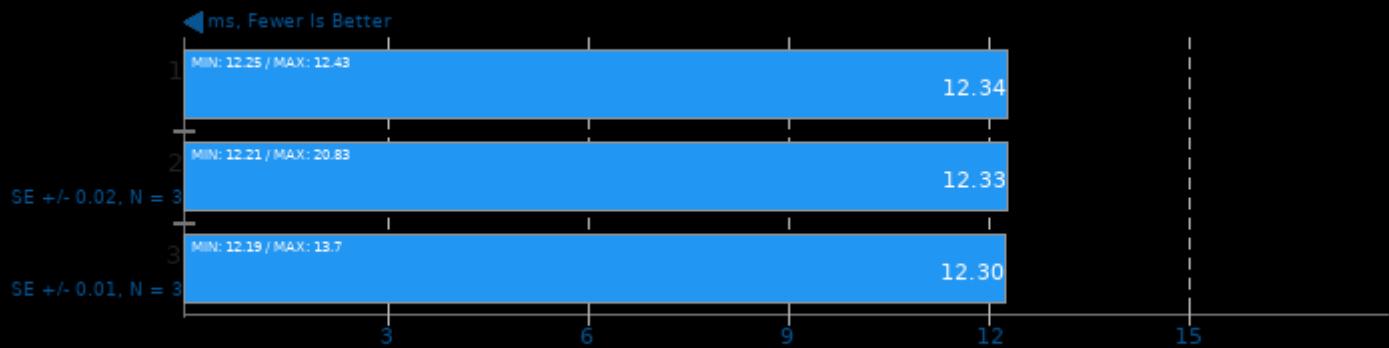
Target: CPU - Model: resnet18



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

NCNN 20210525

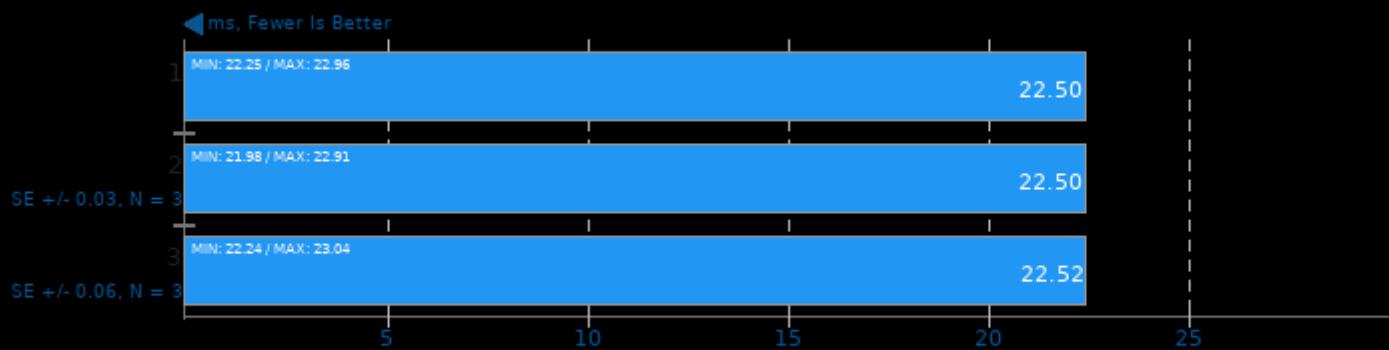
Target: CPU - Model: alexnet



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

NCNN 20210525

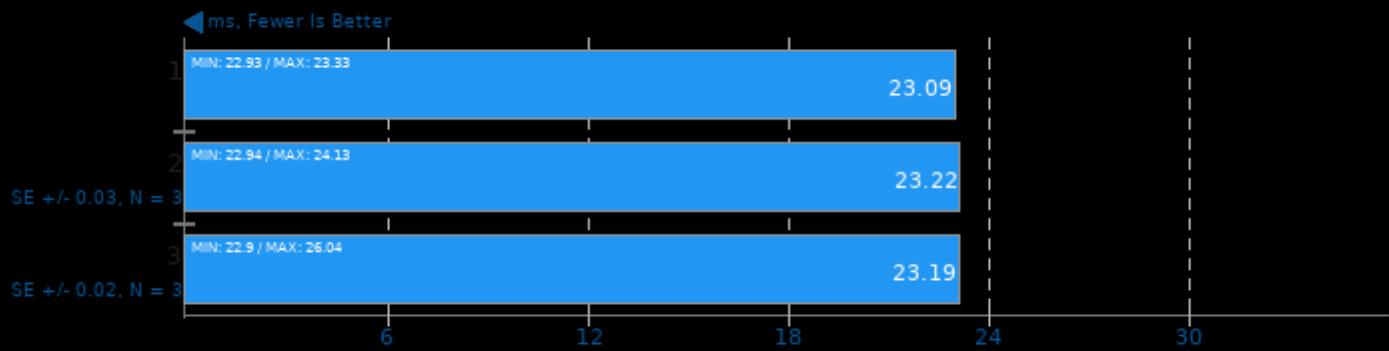
Target: CPU - Model: resnet50



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

NCNN 20210525

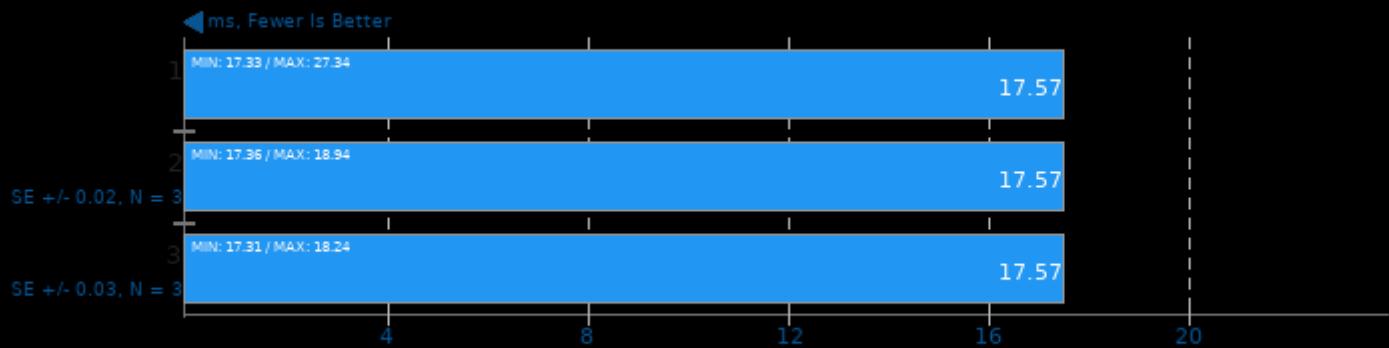
Target: CPU - Model: yolov4-tiny



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

NCNN 20210525

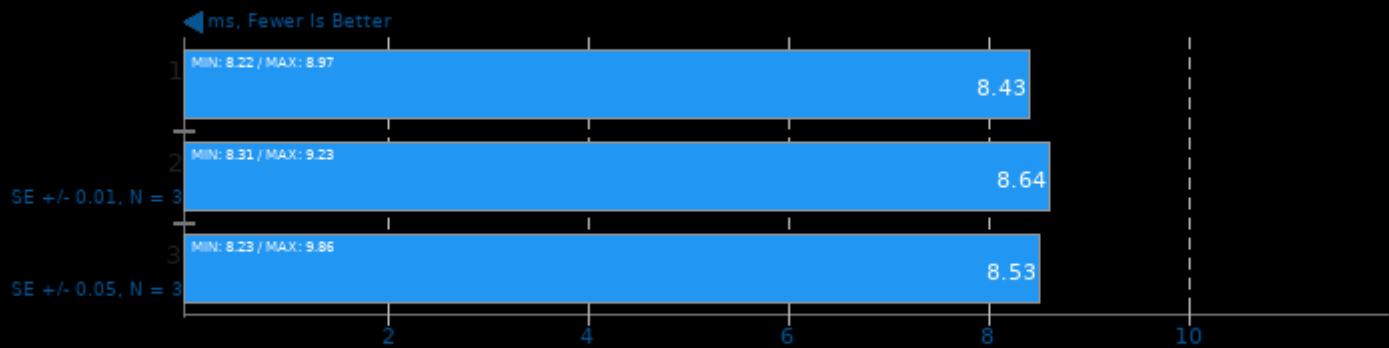
Target: CPU - Model: squeezeenet_ssd



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

NCNN 20210525

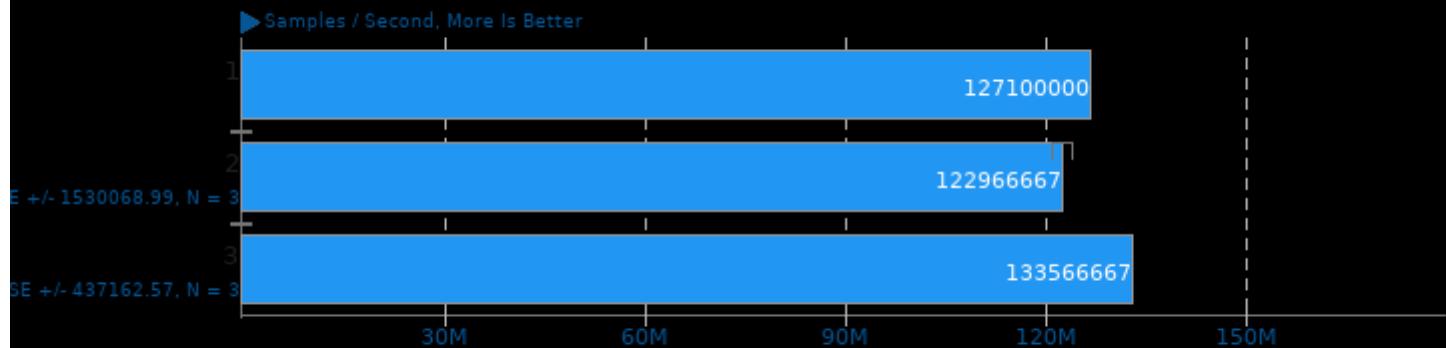
Target: CPU - Model: regnety_400m



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

SrsRAN 21.04

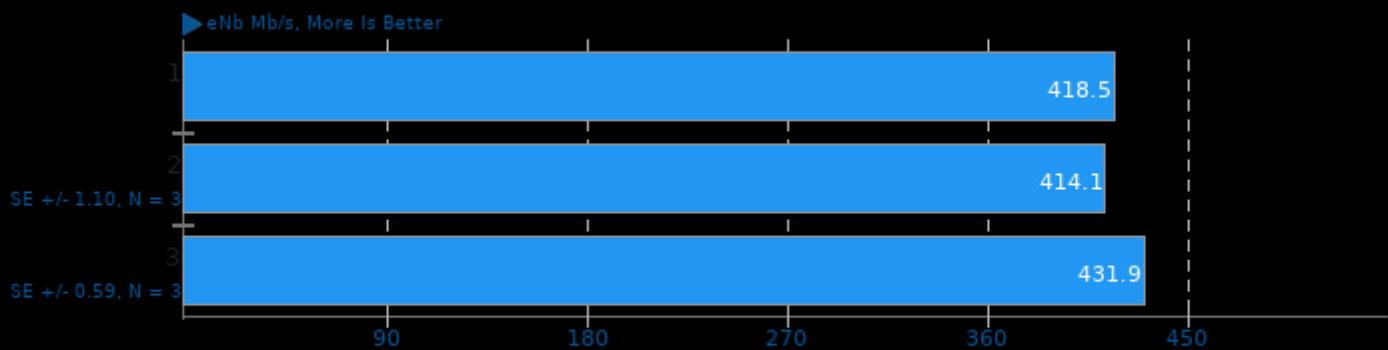
Test: OFDM_Test



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

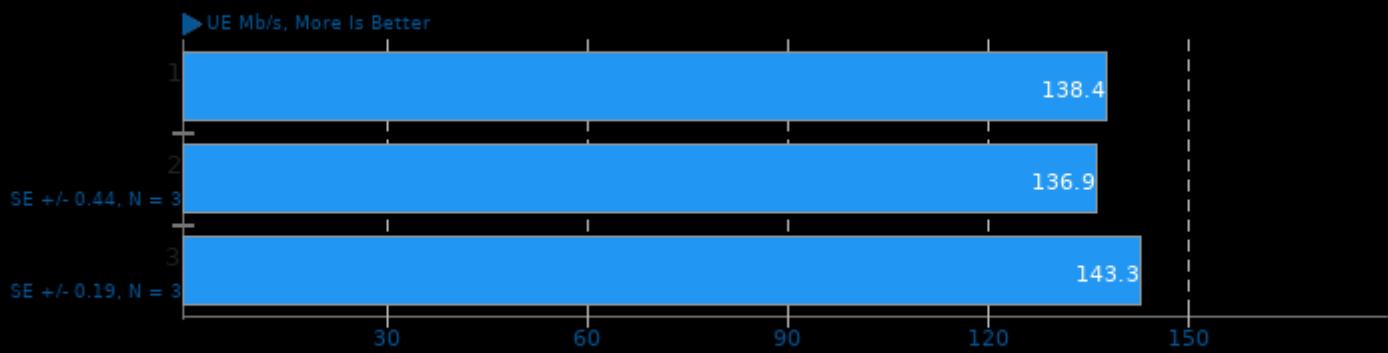
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

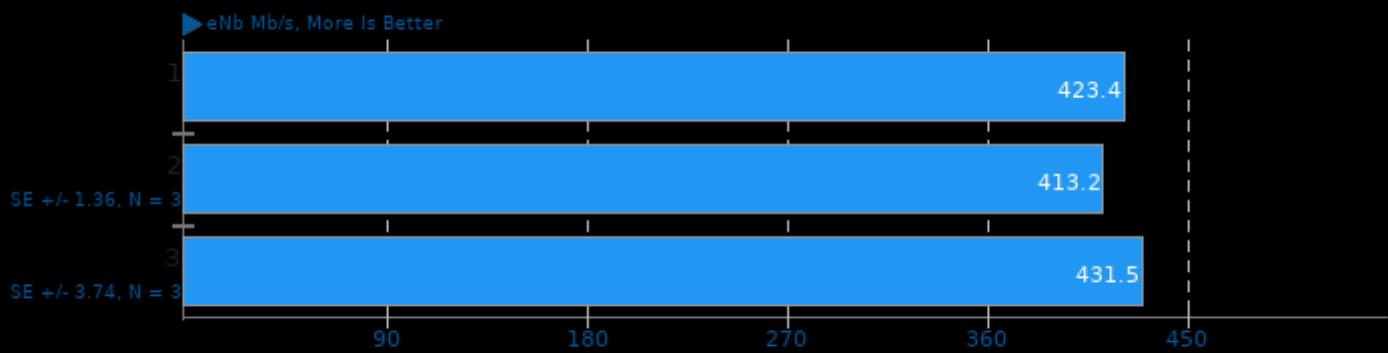
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

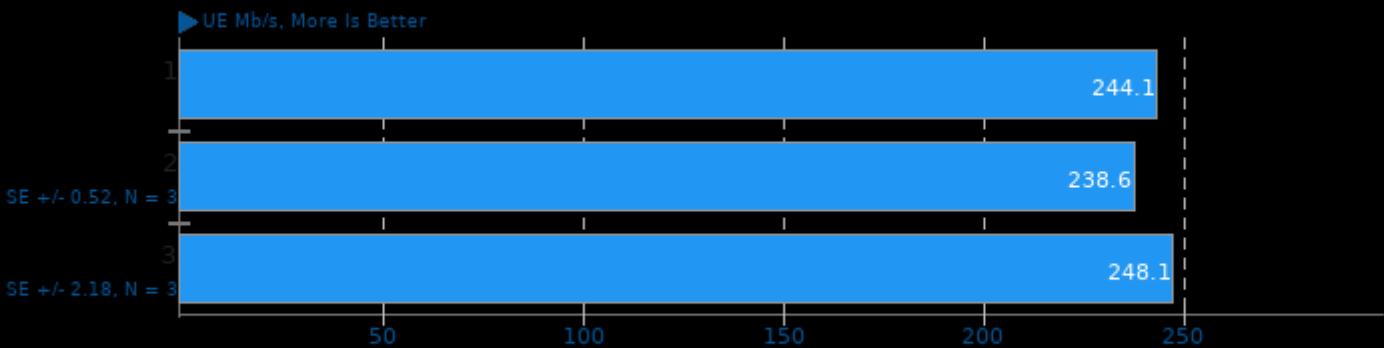
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

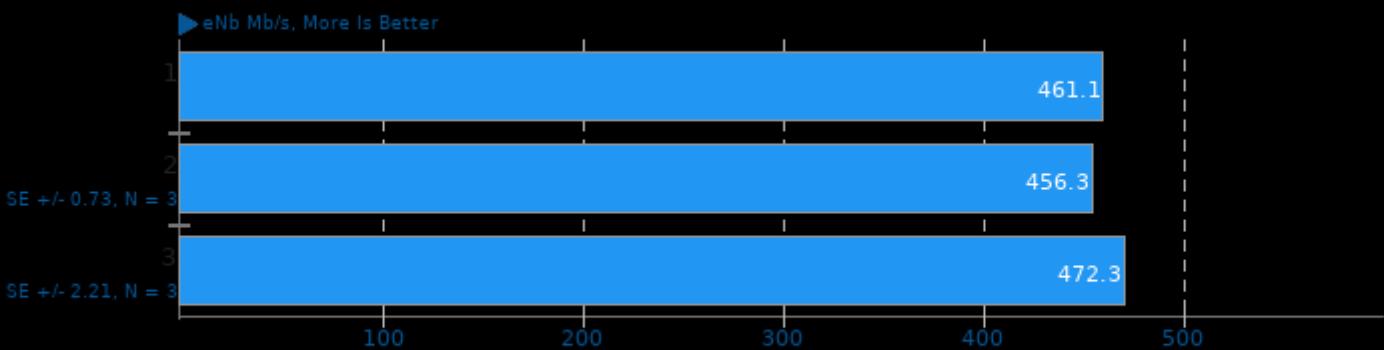
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

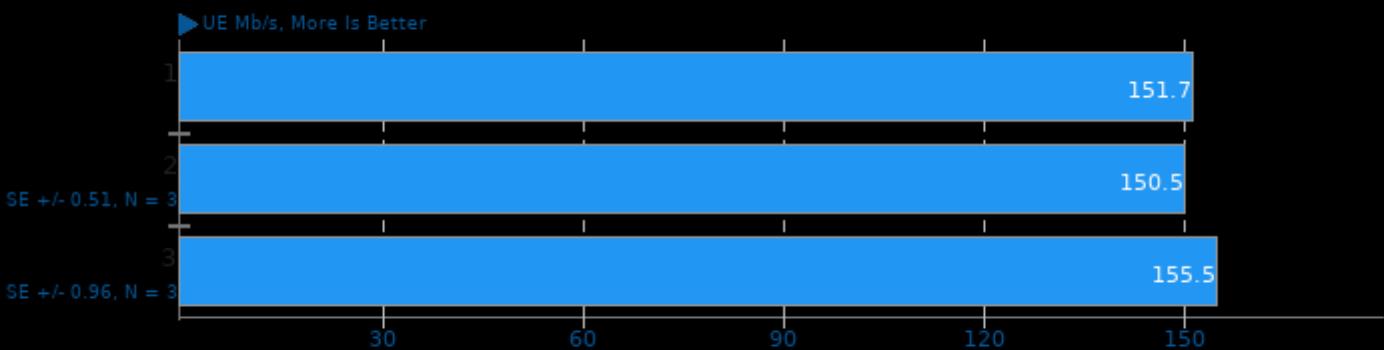
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

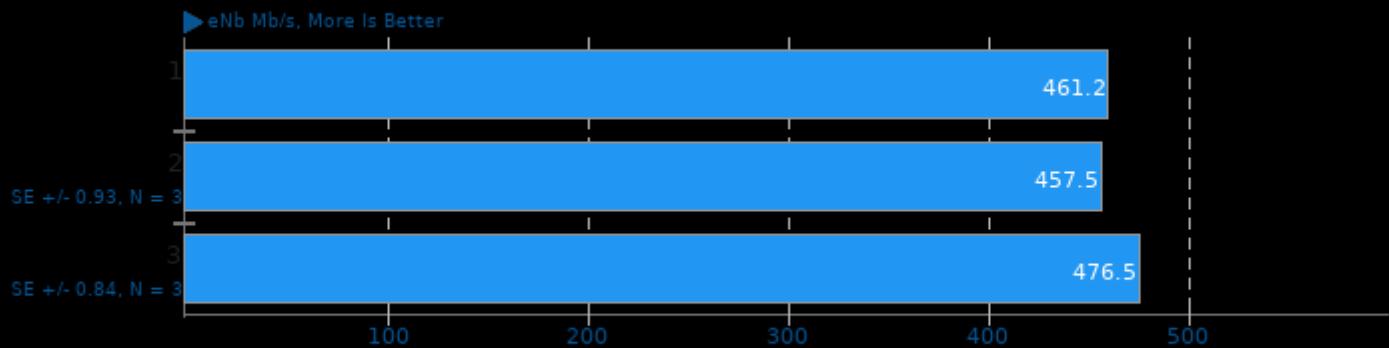
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

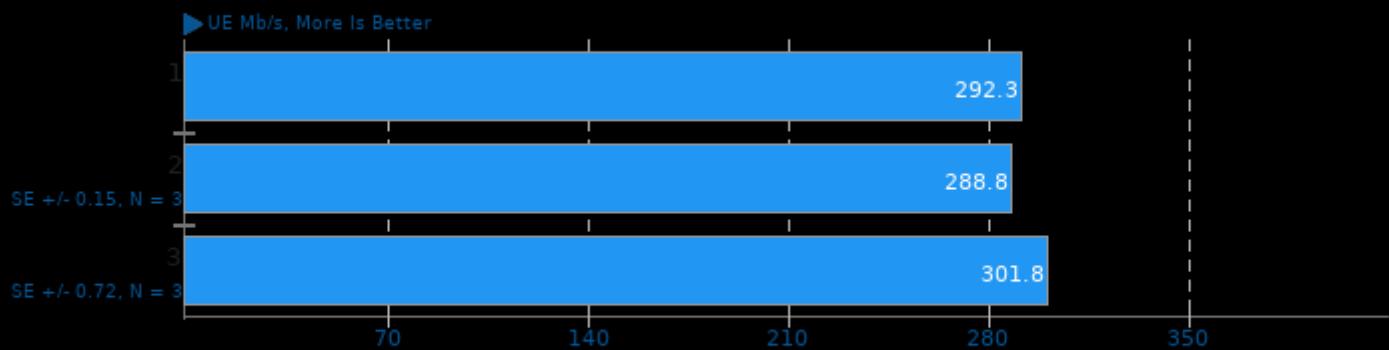
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

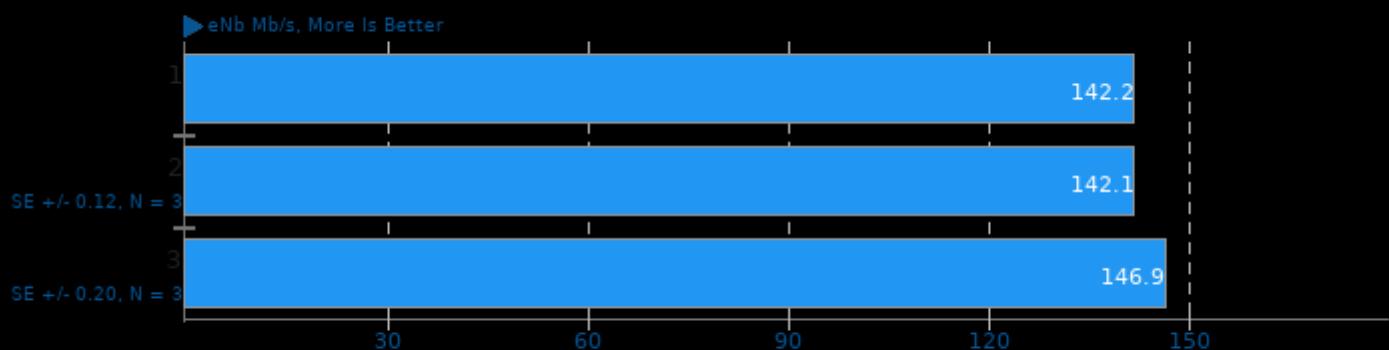
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

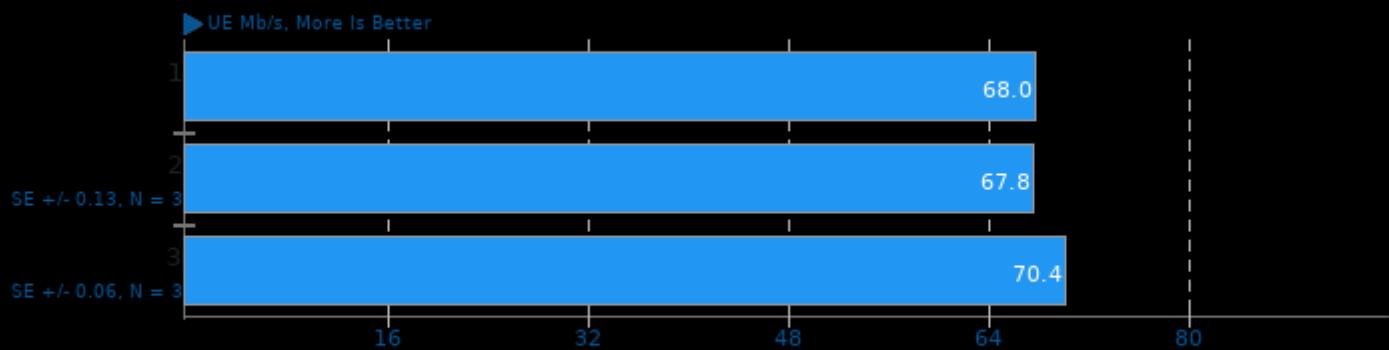
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

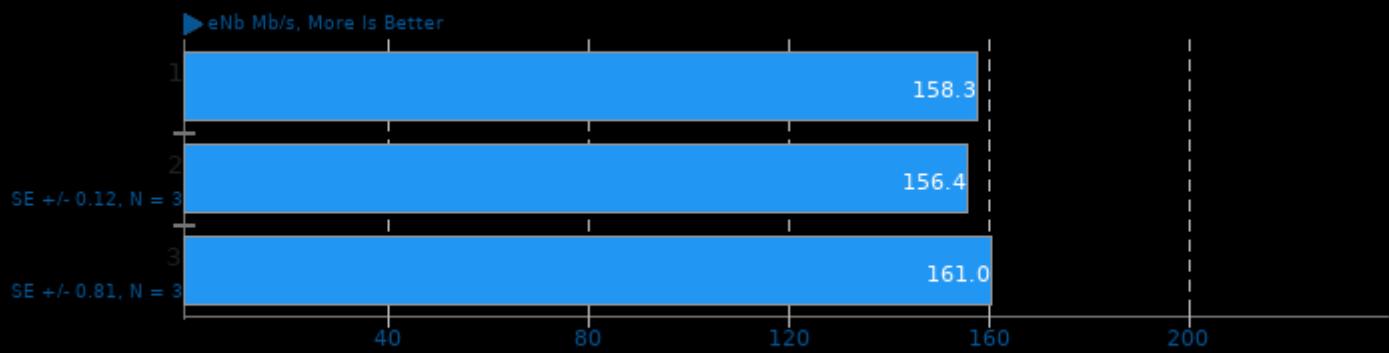
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

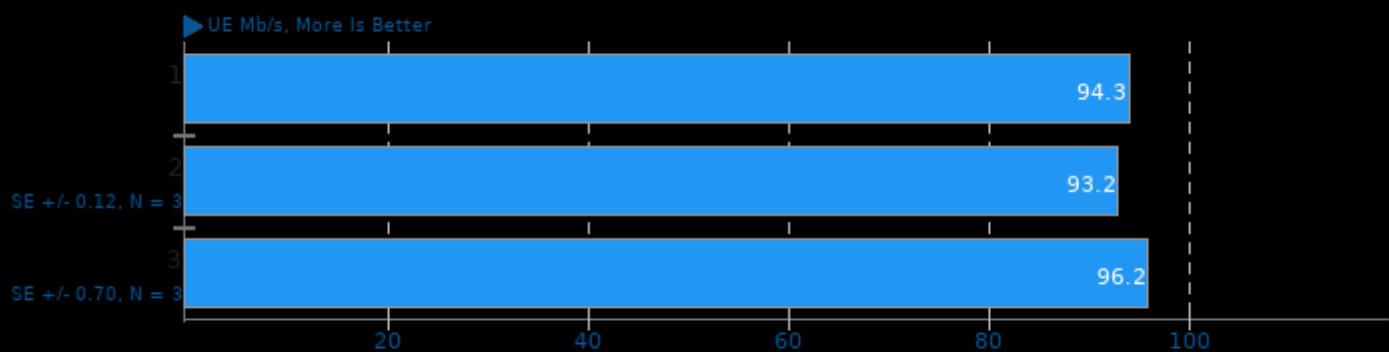
Test: 5G PHY_DL_NR Test 270 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

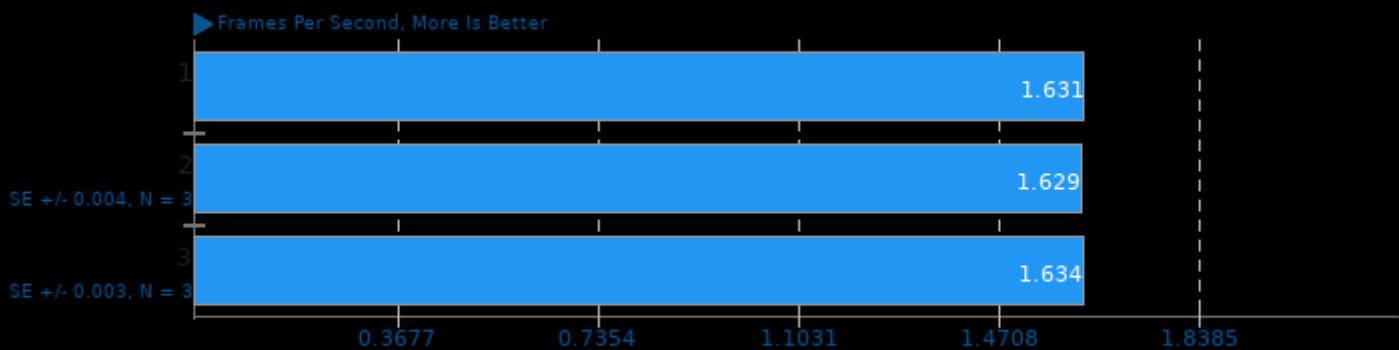
Test: 5G PHY_DL_NR Test 270 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

SVT-AV1 0.8.7

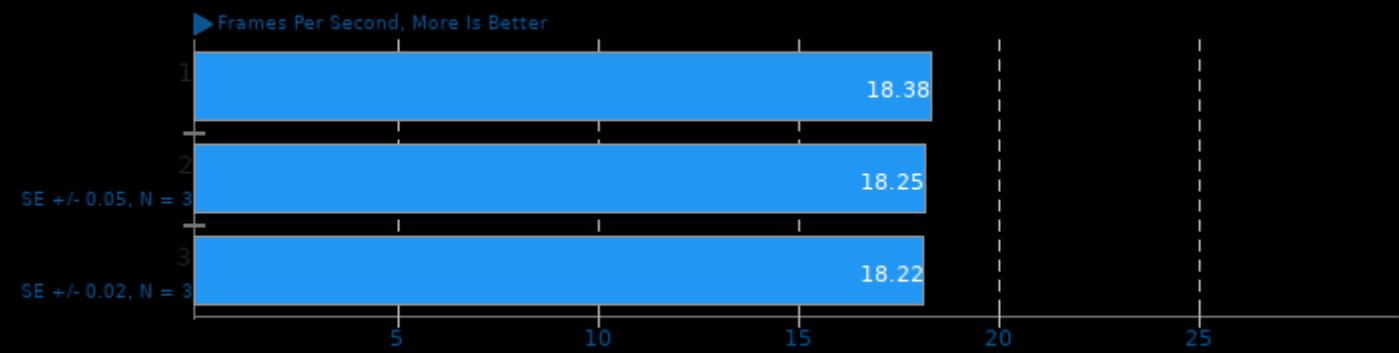
Encoder Mode: Preset 4 - Input: Bosphorus 4K



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

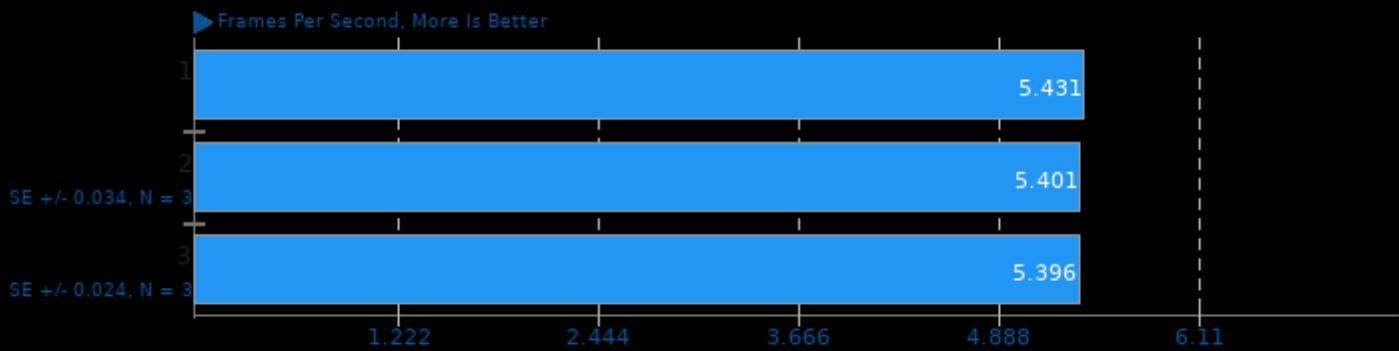
Encoder Mode: Preset 8 - Input: Bosphorus 4K



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

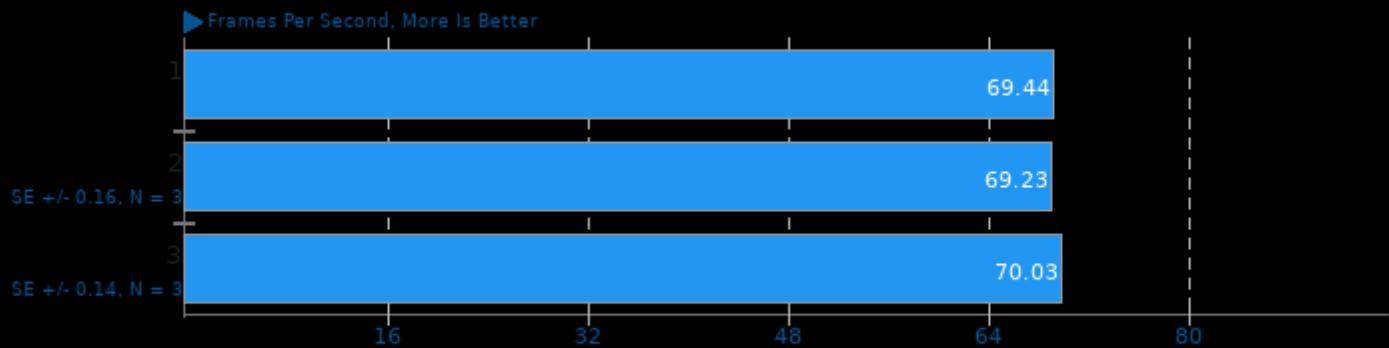
Encoder Mode: Preset 4 - Input: Bosphorus 1080p



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

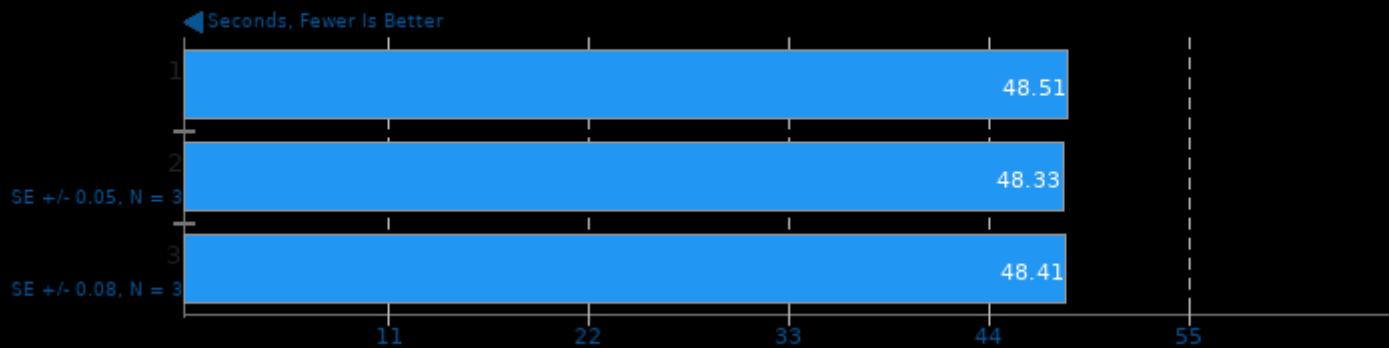
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

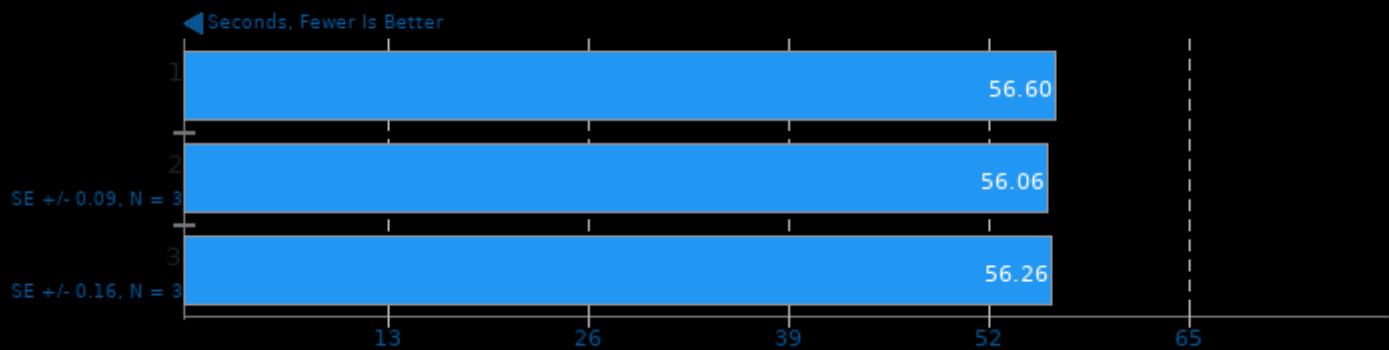
Timed FFmpeg Compilation 4.4

Time To Compile



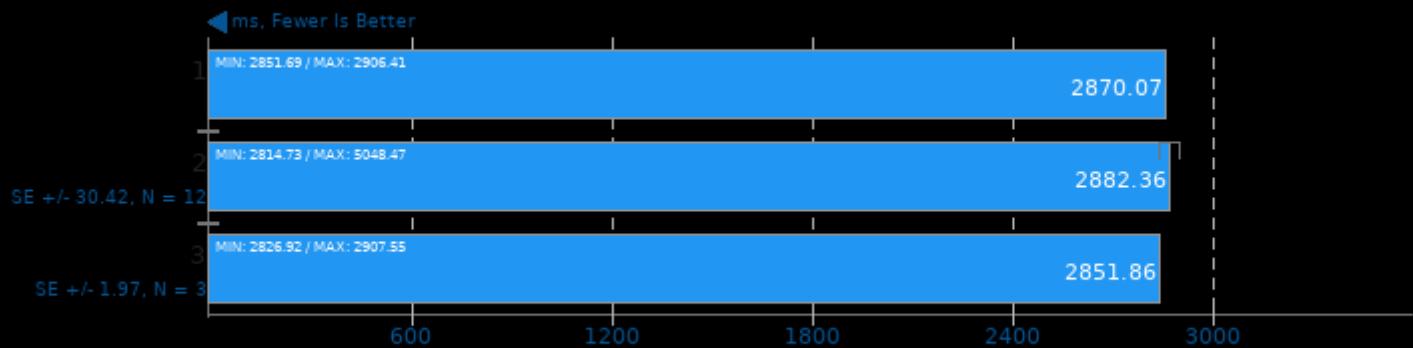
Timed GDB GNU Debugger Compilation 10.2

Time To Compile



TNN 0.3

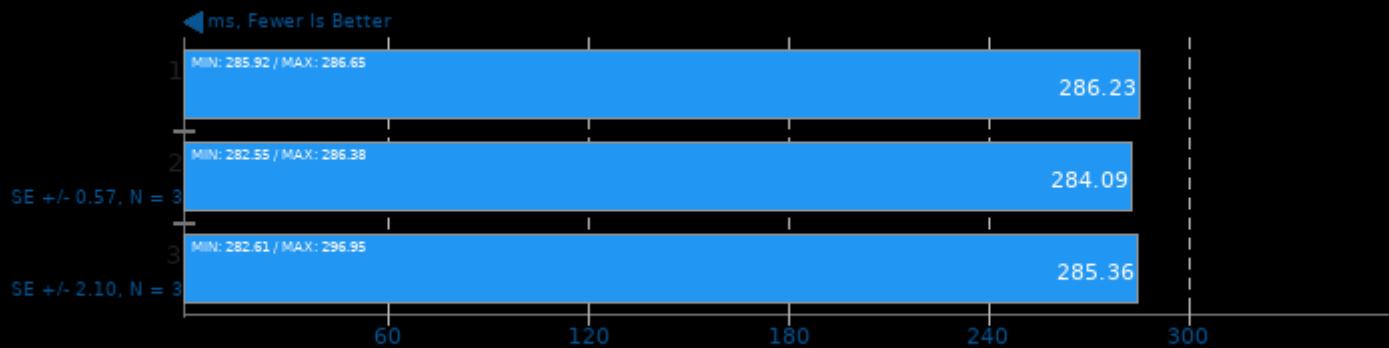
Target: CPU - Model: DenseNet



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

TNN 0.3

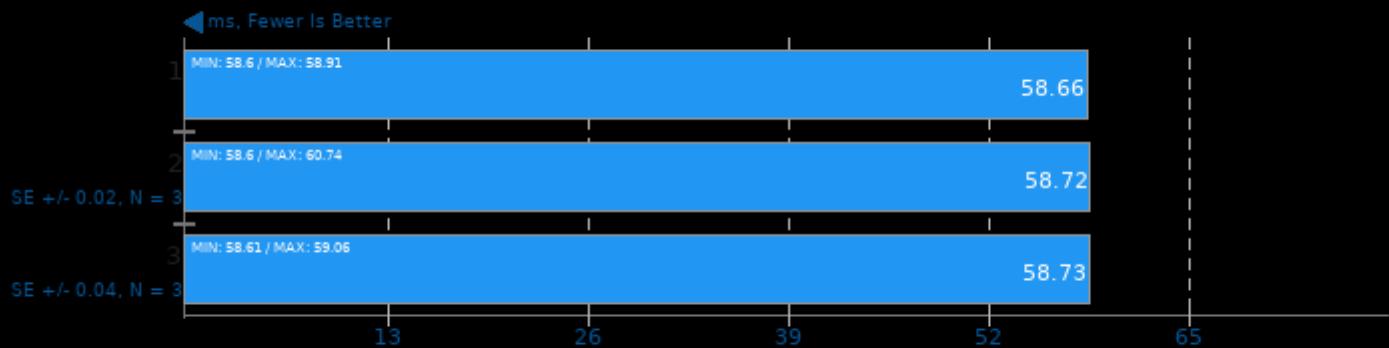
Target: CPU - Model: MobileNet v2



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

TNN 0.3

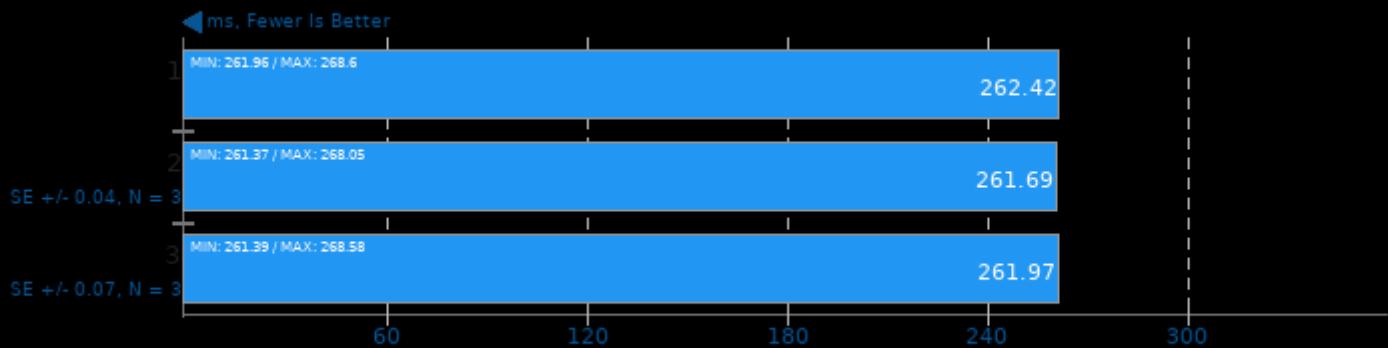
Target: CPU - Model: SqueezeNet v2



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

TNN 0.3

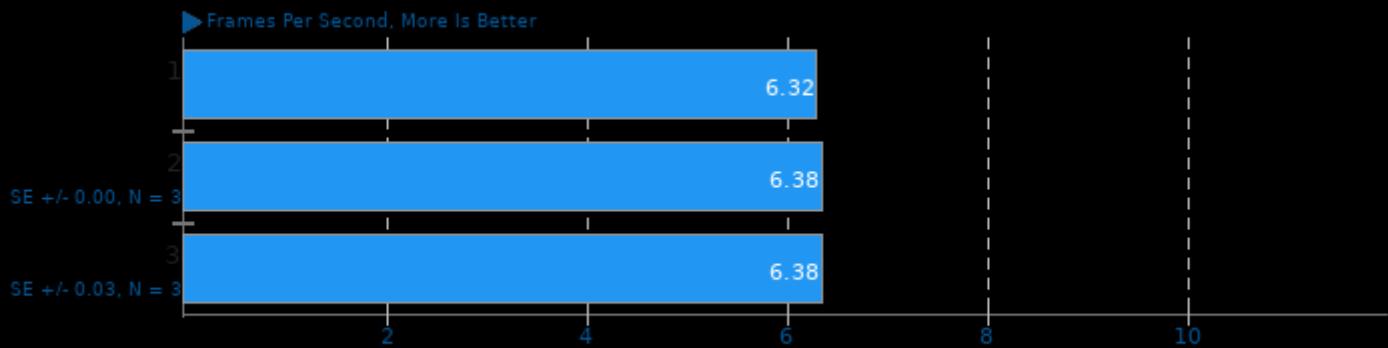
Target: CPU - Model: SqueezeNet v1.1



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

VP9 libvpx Encoding 1.10.0

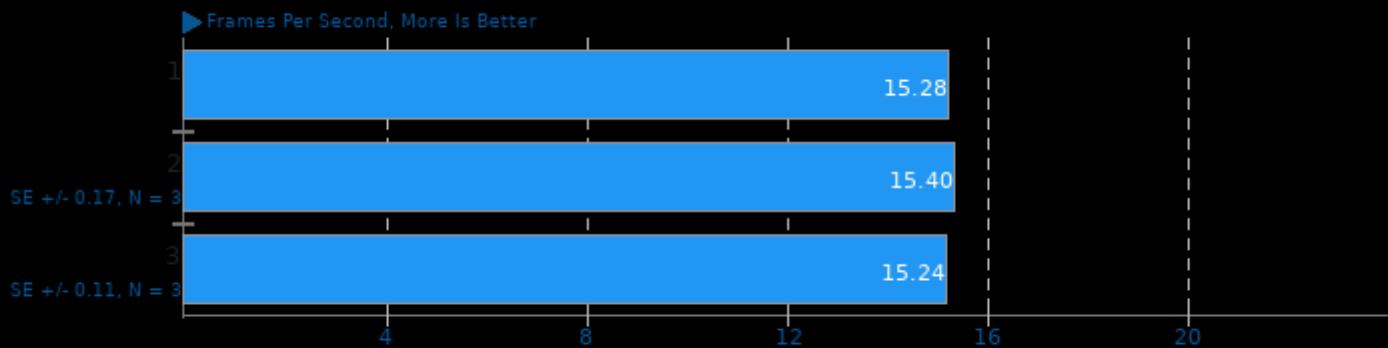
Speed: Speed 0 - Input: Bosphorus 4K



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

VP9 libvpx Encoding 1.10.0

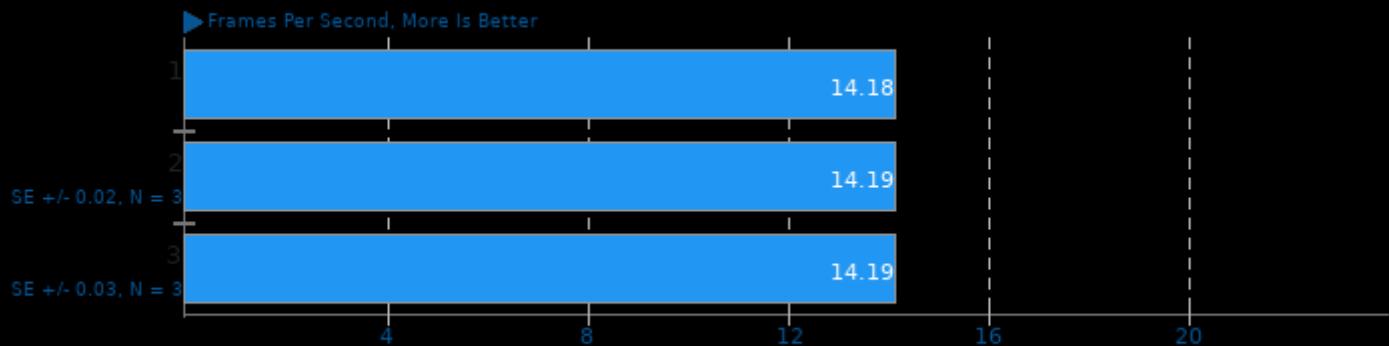
Speed: Speed 5 - Input: Bosphorus 4K



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

VP9 libvpx Encoding 1.10.0

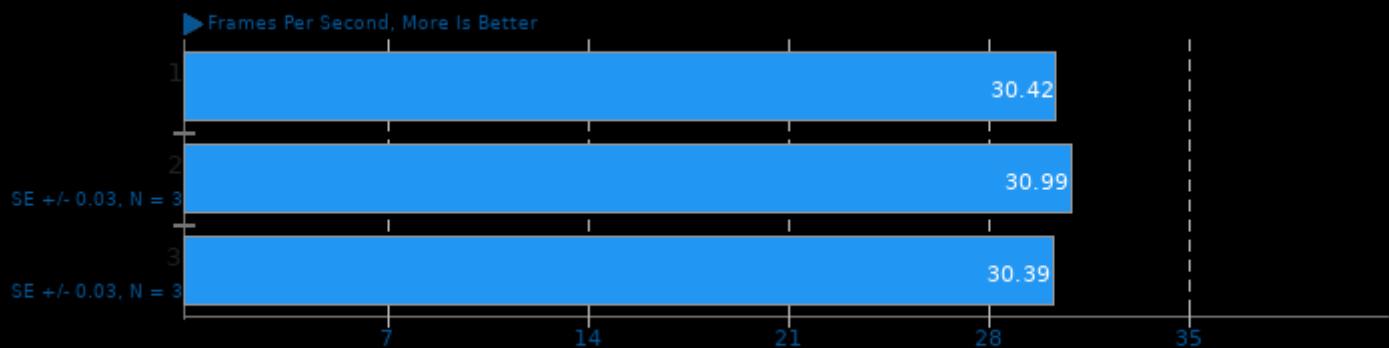
Speed: Speed 0 - Input: Bosphorus 1080p



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

VP9 libvpx Encoding 1.10.0

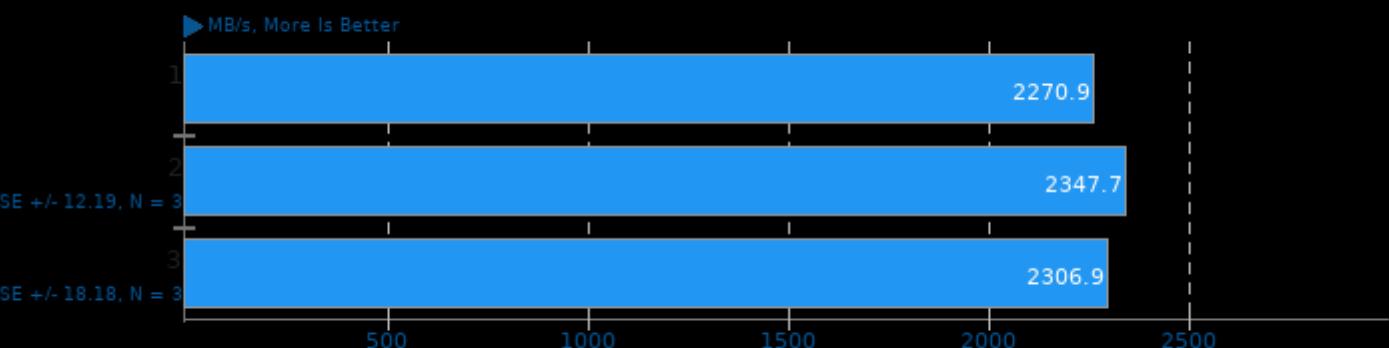
Speed: Speed 5 - Input: Bosphorus 1080p



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

Zstd Compression 1.5.0

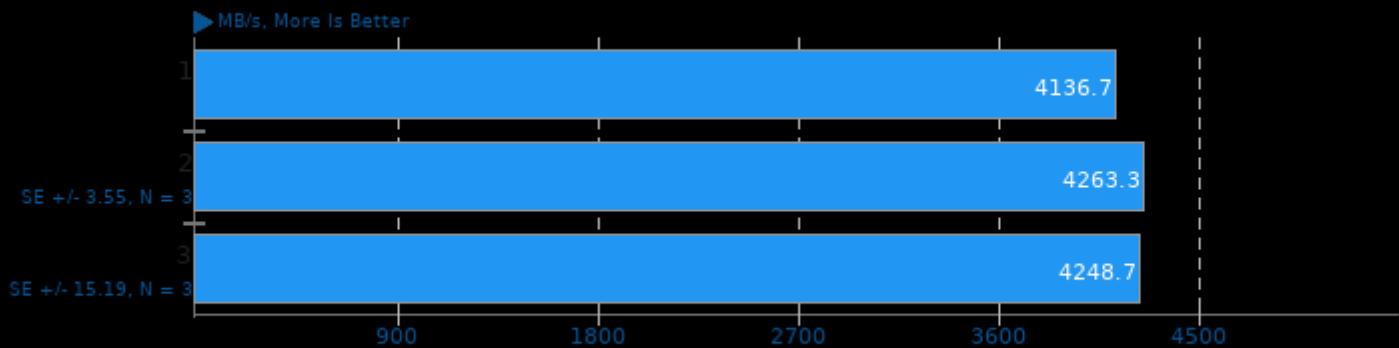
Compression Level: 3 - Compression Speed



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

Zstd Compression 1.5.0

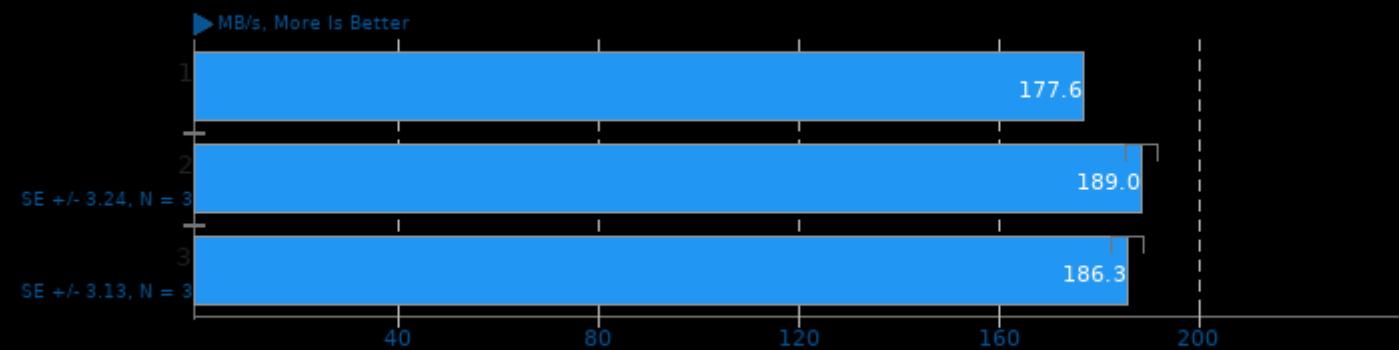
Compression Level: 3 - Decompression Speed



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

Zstd Compression 1.5.0

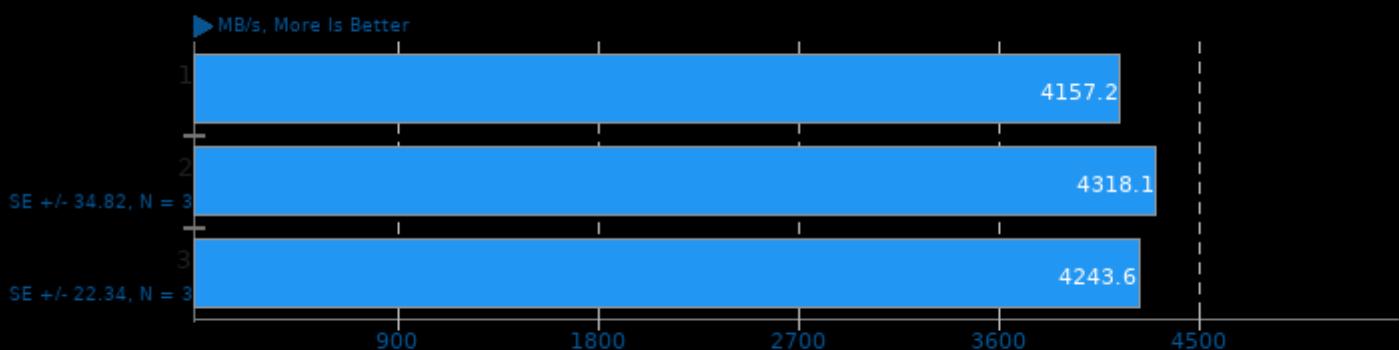
Compression Level: 8 - Compression Speed



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

Zstd Compression 1.5.0

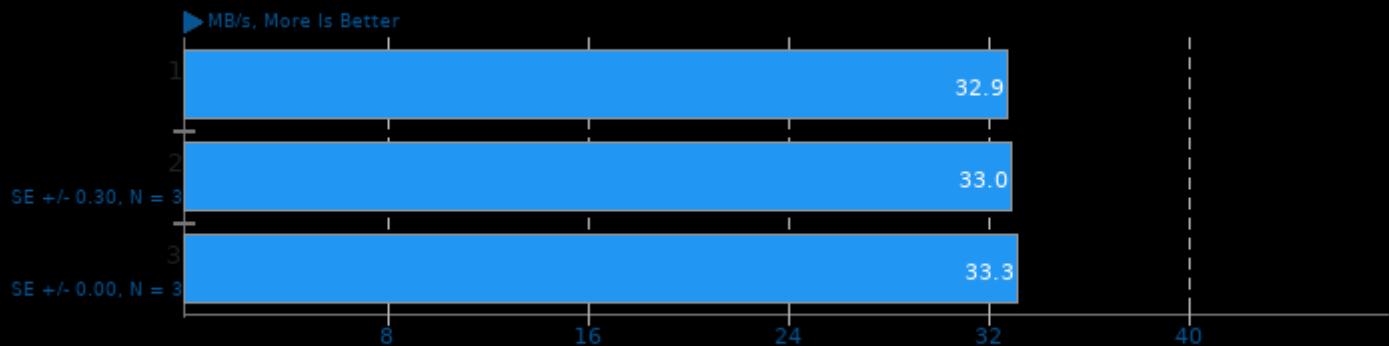
Compression Level: 8 - Decompression Speed



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

Zstd Compression 1.5.0

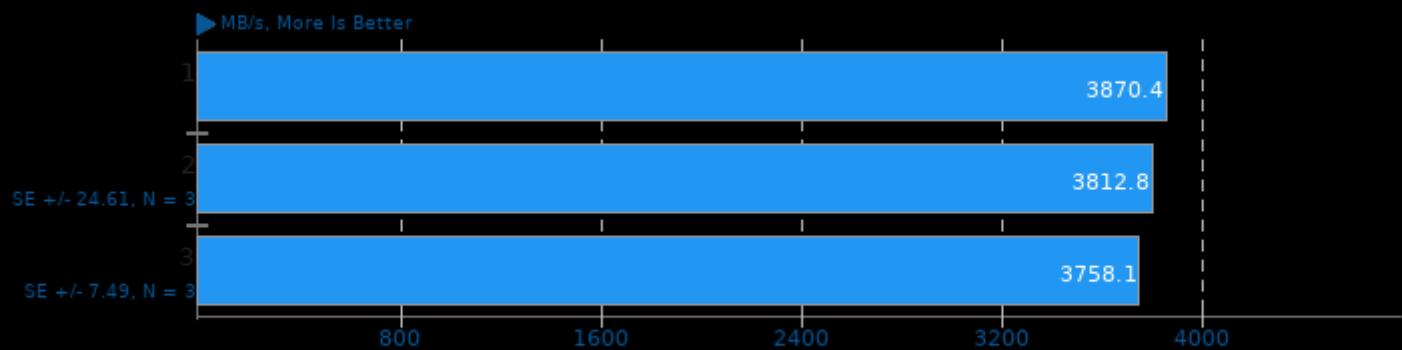
Compression Level: 19 - Compression Speed



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

Zstd Compression 1.5.0

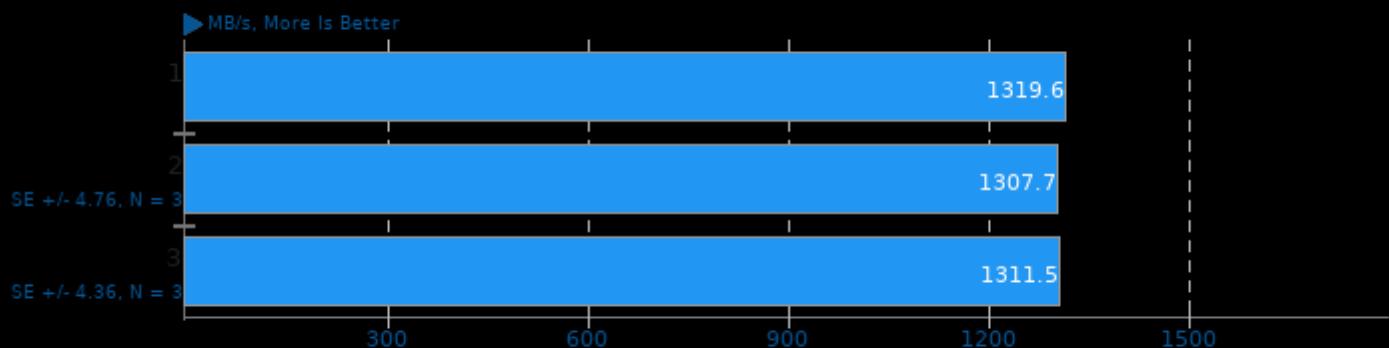
Compression Level: 19 - Decompression Speed



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

Zstd Compression 1.5.0

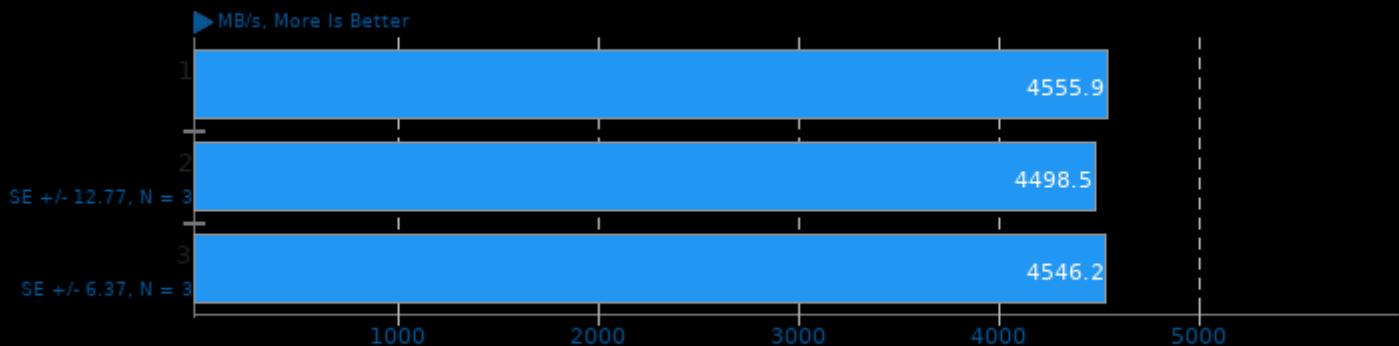
Compression Level: 3, Long Mode - Compression Speed



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

Zstd Compression 1.5.0

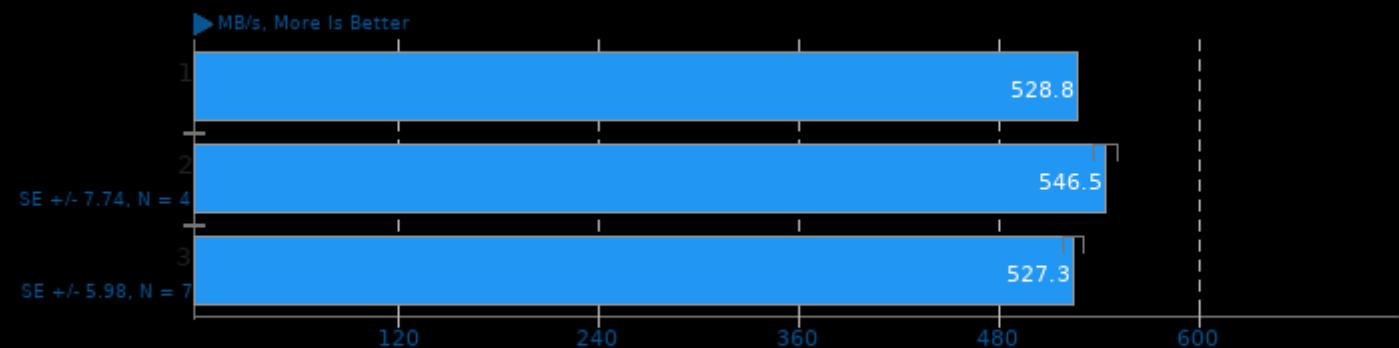
Compression Level: 3, Long Mode - Decompression Speed



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

Zstd Compression 1.5.0

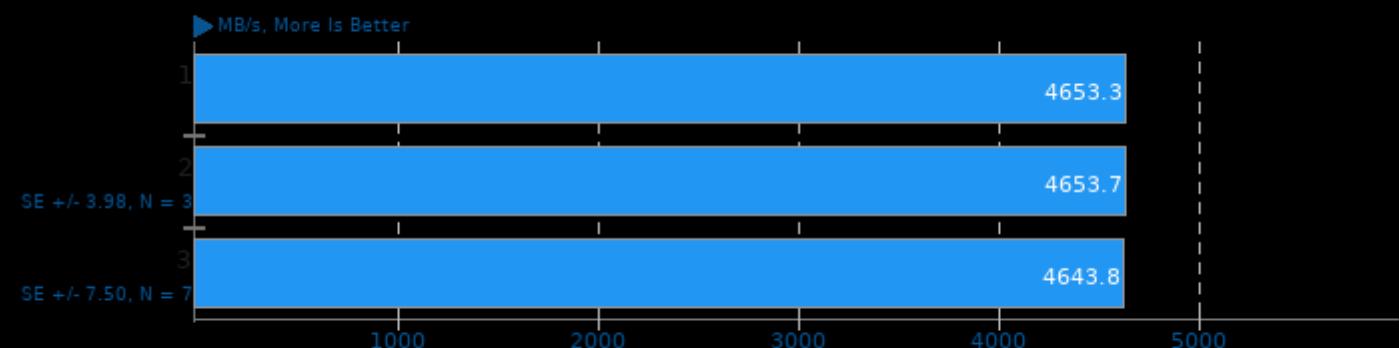
Compression Level: 8, Long Mode - Compression Speed



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

Zstd Compression 1.5.0

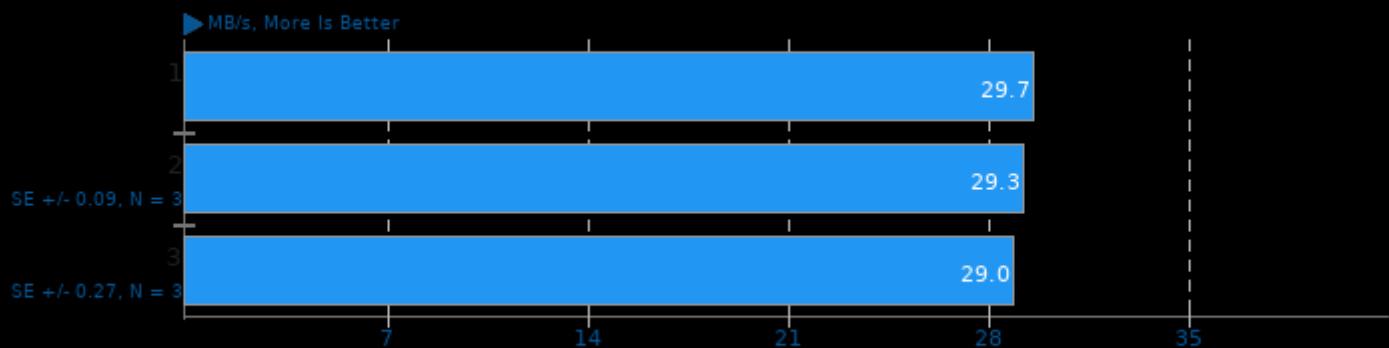
Compression Level: 8, Long Mode - Decompression Speed



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

Zstd Compression 1.5.0

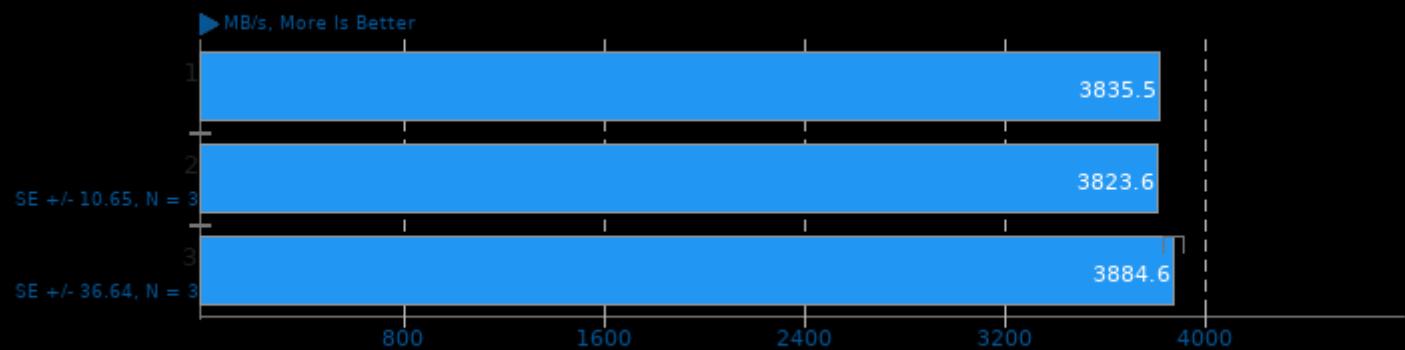
Compression Level: 19, Long Mode - Compression Speed



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

Zstd Compression 1.5.0

Compression Level: 19, Long Mode - Decompression Speed

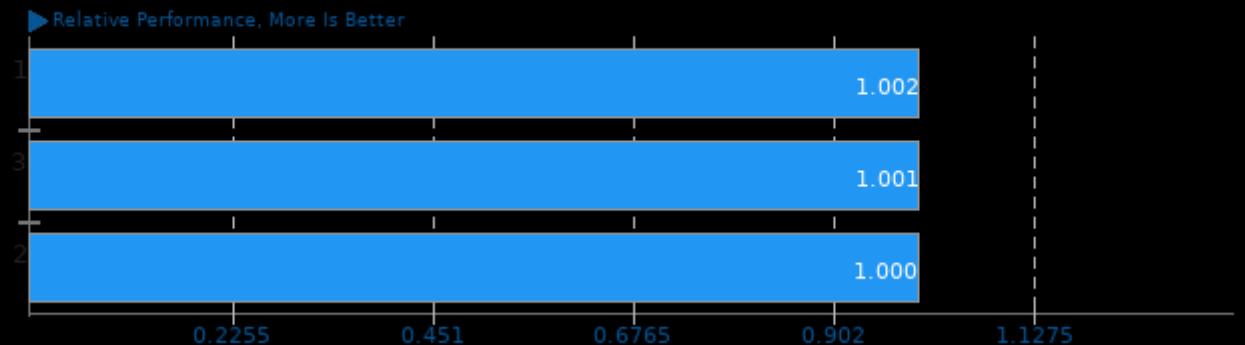


1. (CC) gcc options: -O3 -pthread -lz -lzma

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

Geometric Mean Of AV1 Tests

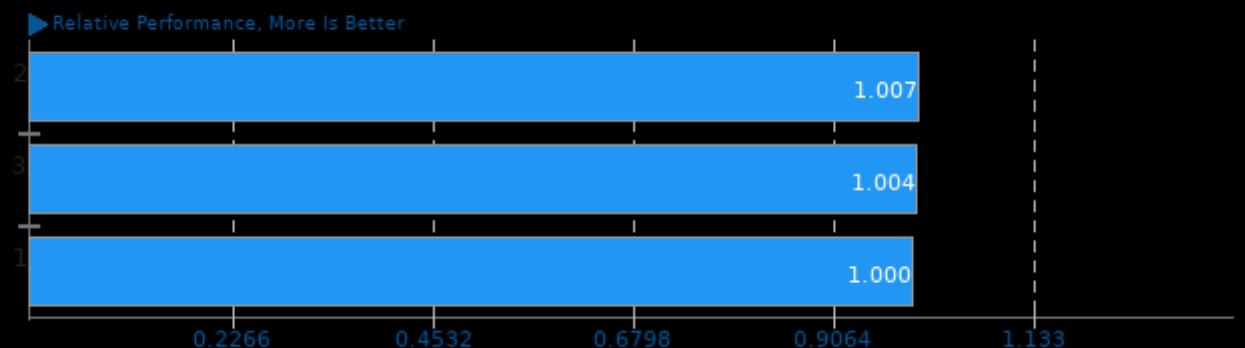
Result Composite - 10900k june



Geometric mean based upon tests: pts/dav1d and pts/svt-av1

Geometric Mean Of Timed Code Compilation Tests

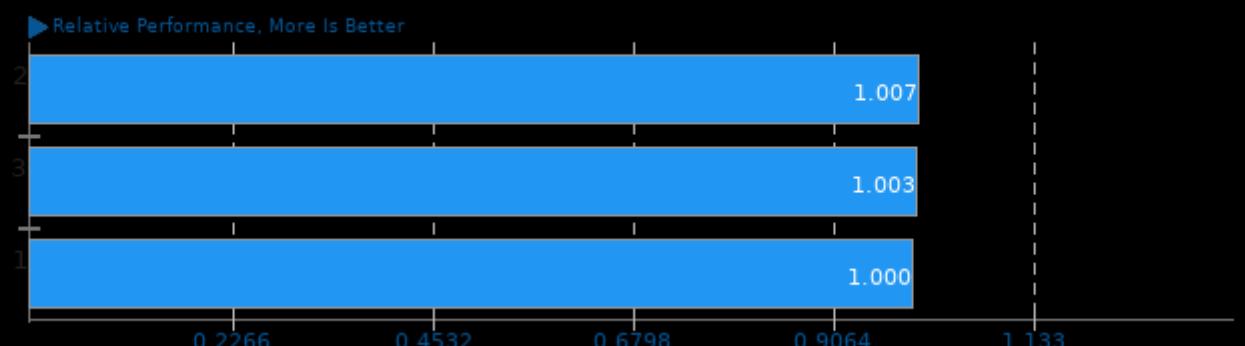
Result Composite - 10900k june



Geometric mean based upon tests: pts/build-gdb and pts/build-ffmpeg

Geometric Mean Of C/C++ Compiler Tests

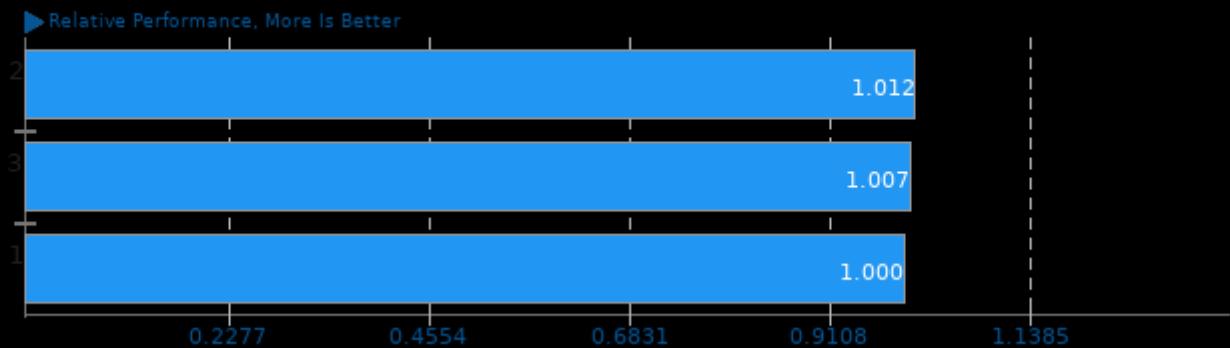
Result Composite - 10900k june



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

Geometric Mean Of Compression Tests

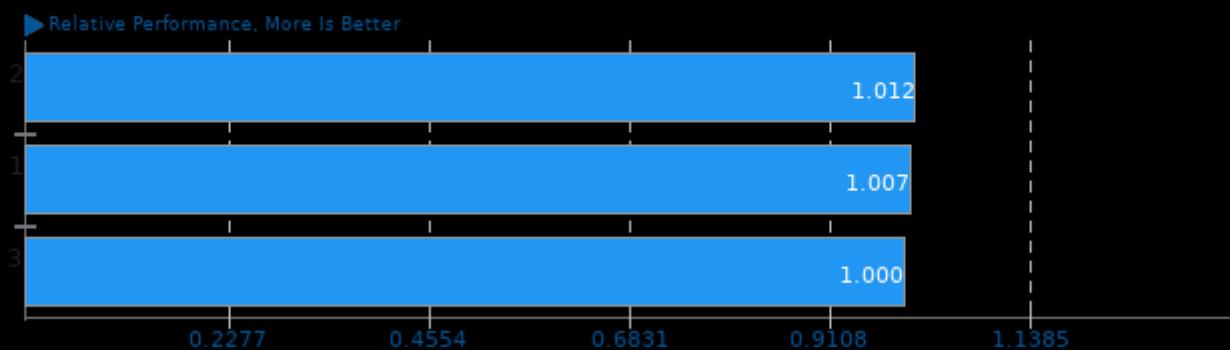
Result Composite - 10900k june



Geometric mean based upon tests: pts/compress-zstd and pts/blosc

Geometric Mean Of CPU Massive Tests

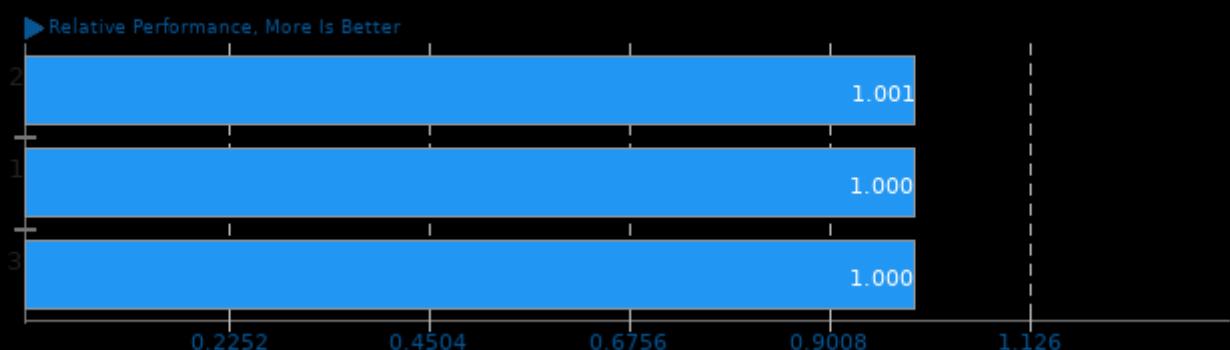
Result Composite - 10900k june



Geometric mean based upon tests: pts/brl-cad, pts/compress-zstd, pts/dav1d, pts/svt-av1, pts/vpxenc and pts/npb

Geometric Mean Of Creator Workloads Tests

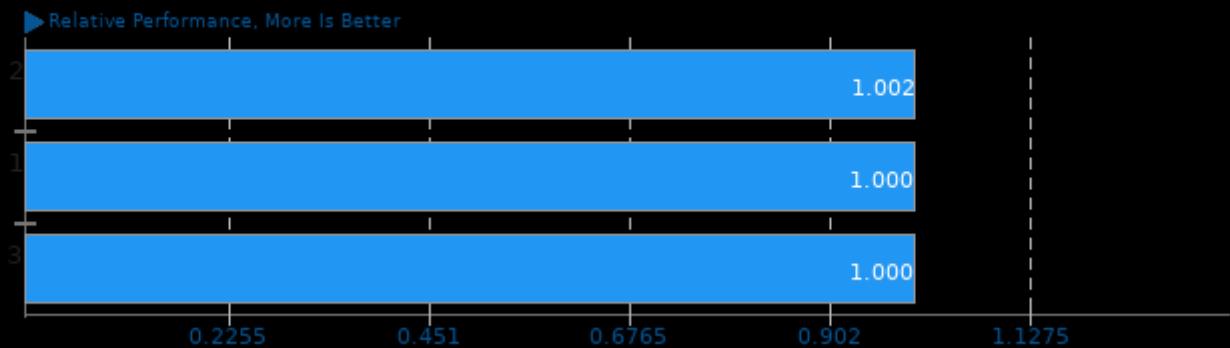
Result Composite - 10900k june



Geometric mean based upon tests: pts/vpxenc, pts/dav1d, pts/svt-av1, pts/embree, pts/oidn, pts/astcenc and pts/brl-cad

Geometric Mean Of Encoding Tests

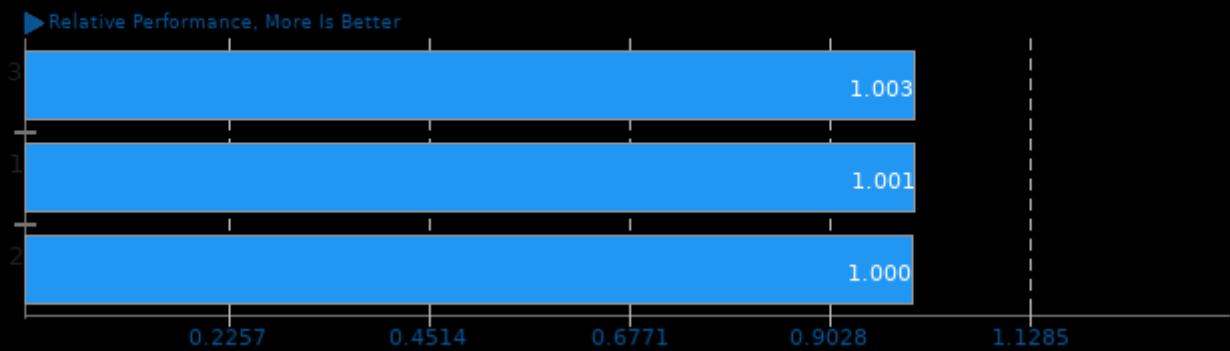
Result Composite - 10900k june



Geometric mean based upon tests: pts/vpxenc, pts/dav1d and pts/svt-av1

Geometric Mean Of Game Development Tests

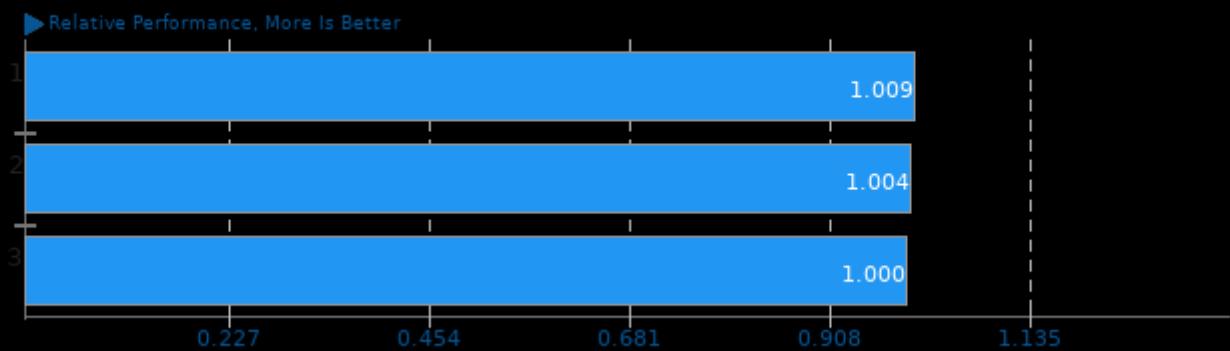
Result Composite - 10900k june



Geometric mean based upon tests: pts/astcenc and pts/oidn

Geometric Mean Of HPC - High Performance Computing Tests

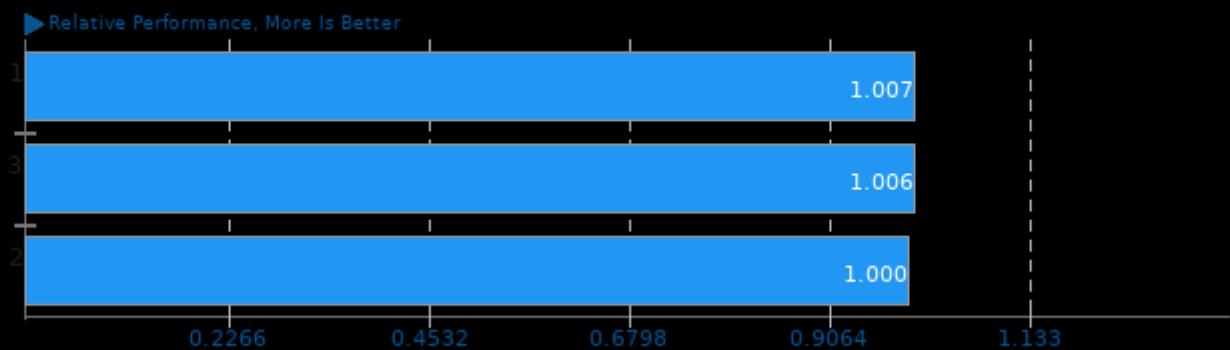
Result Composite - 10900k june



Geometric mean based upon tests: pts/npb, pts/gromacs, pts/mnn, pts/ncnn and pts/tnn

Geometric Mean Of Machine Learning Tests

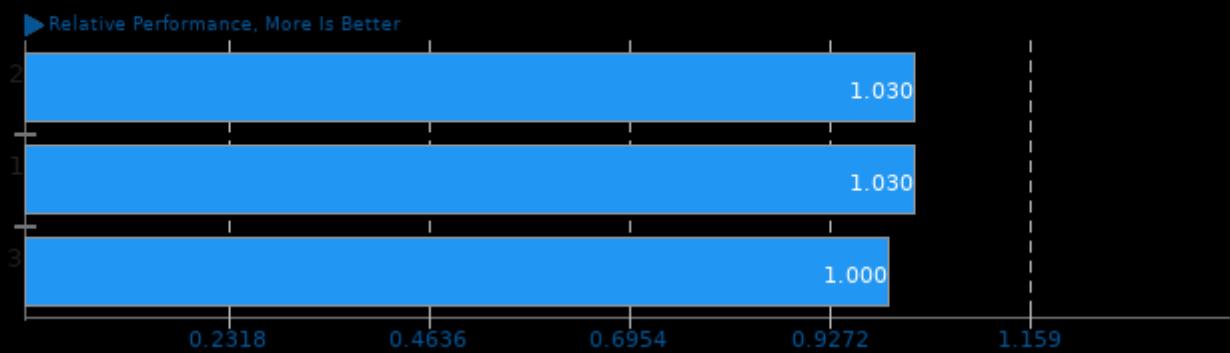
Result Composite - 10900k june



Geometric mean based upon tests: pts/mnn, pts/ncnn and pts/tnn

Geometric Mean Of MPI Benchmarks Tests

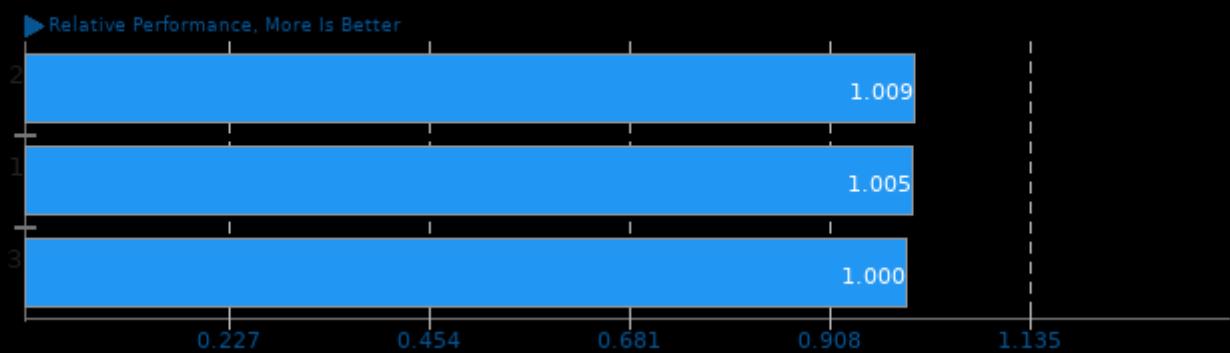
Result Composite - 10900k june



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

Geometric Mean Of Multi-Core Tests

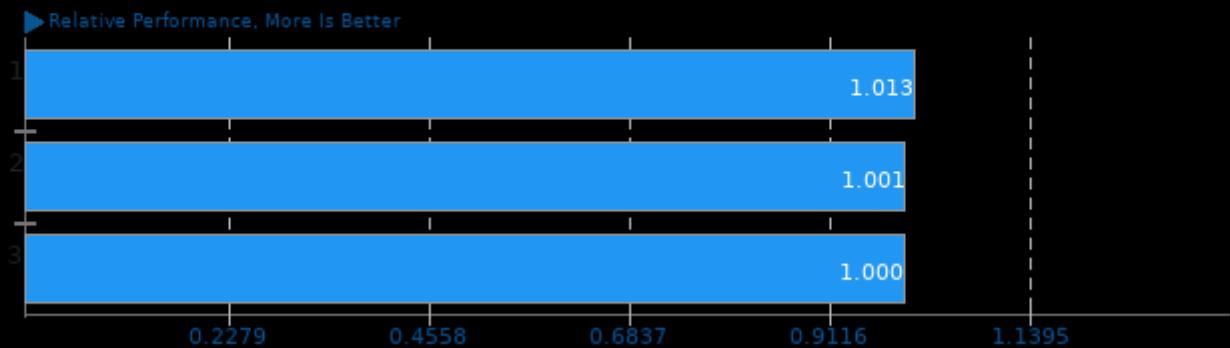
Result Composite - 10900k june



Geometric mean based upon tests: pts/vpxenc, pts/dav1d, pts/svt-av1, pts/npb, pts/gromacs, pts/compress-zstd, pts/build-gdb, pts/build-ffmpeg, pts/embree and pts/oidn

Geometric Mean Of NVIDIA GPU Compute Tests

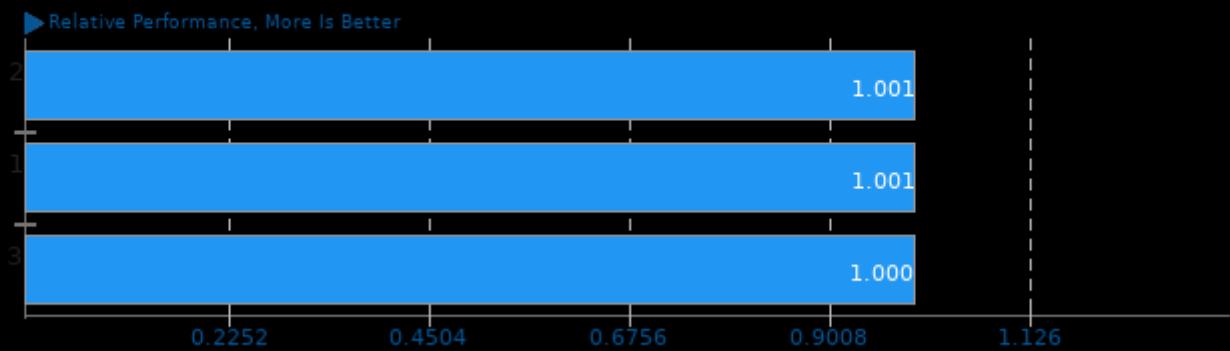
Result Composite - 10900k june



Geometric mean based upon tests: pts/gromacs and pts/ncnn

Geometric Mean Of Intel oneAPI Tests

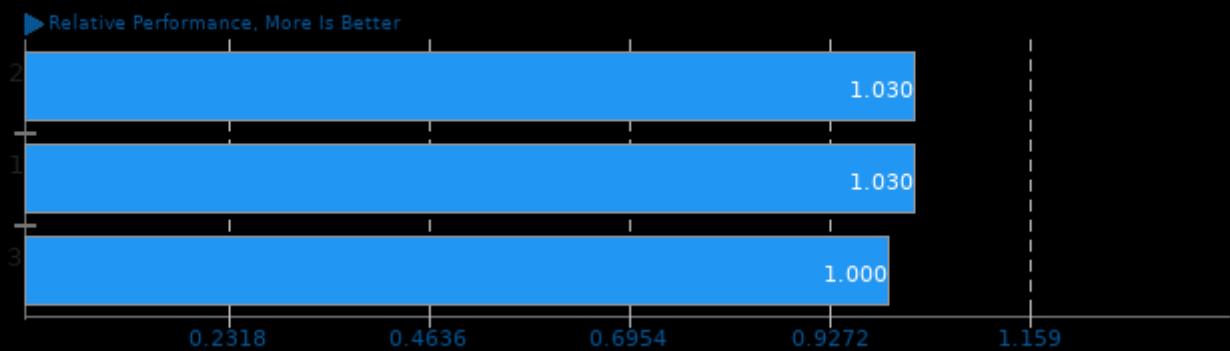
Result Composite - 10900k june



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

Geometric Mean Of OpenMPI Tests

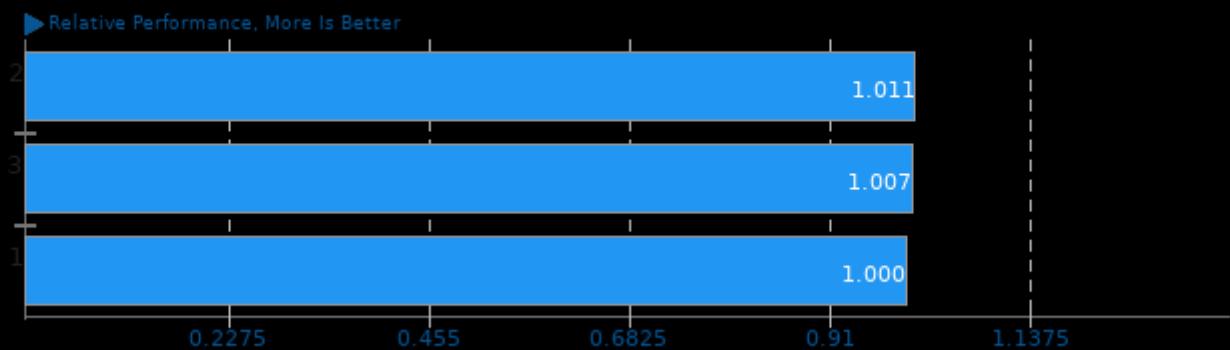
Result Composite - 10900k june



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

Geometric Mean Of Programmer / Developer System Benchmarks Tests

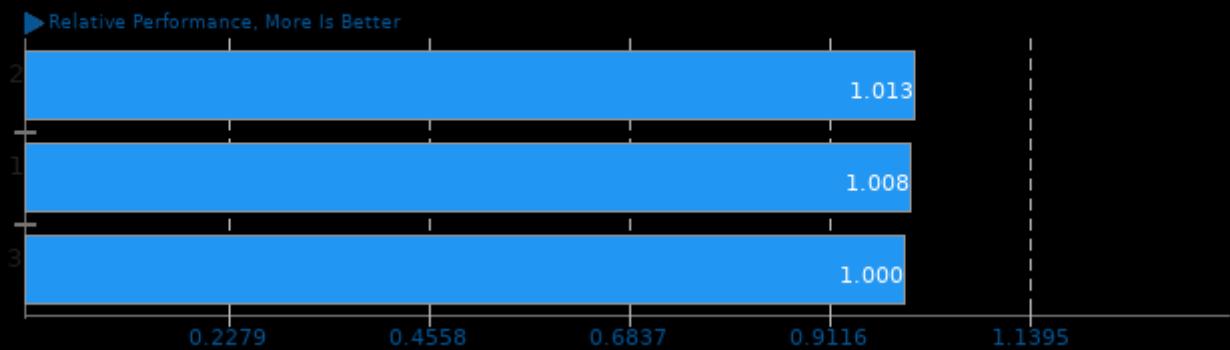
Result Composite - 10900k june



Geometric mean based upon tests: pts/blosc, pts/compress-zstd, pts/build-gdb and pts/build-ffmpeg

Geometric Mean Of Server CPU Tests

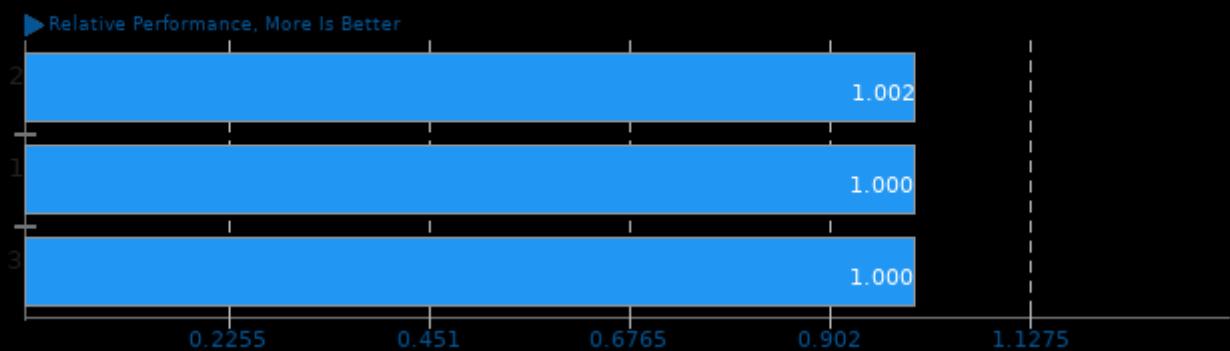
Result Composite - 10900k june



Geometric mean based upon tests: pts/npb, pts/svt-av1, pts/dav1d and pts/compress-zstd

Geometric Mean Of Video Encoding Tests

Result Composite - 10900k june



Geometric mean based upon tests: pts/vpxenc, pts/dav1d and pts/svt-av1

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:00.