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AMD Ryzen 5 5500U testing with a LENOVO LNVNB161216 (GLCN22WW BIOS) and AMD RENOIR 2GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 62% of the tests.

Based on the geometric mean of all complete results, the fastest (A) was 1.009x the speed of the slowest (B). C was 0.998x the speed of A and B was 0.993x the speed of C.

Test Systems:

A

B

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C

Processor: AMD Ryzen 5 5500U @ 2.10GHz (6 Cores / 12 Threads), Motherboard: LENOVO LNVNB161216 (GLCN22WW BIOS), Chipset: AMD Renoir Root Complex, Memory: 6GB, Disk: 256GB SAMSUNG MZALQ256HBJD-00BL2, Graphics: AMD RENOIR 2GB (1800/400MHz), Audio: AMD Device 1637, Network: Qualcomm Atheros QCA6174 802.11ac

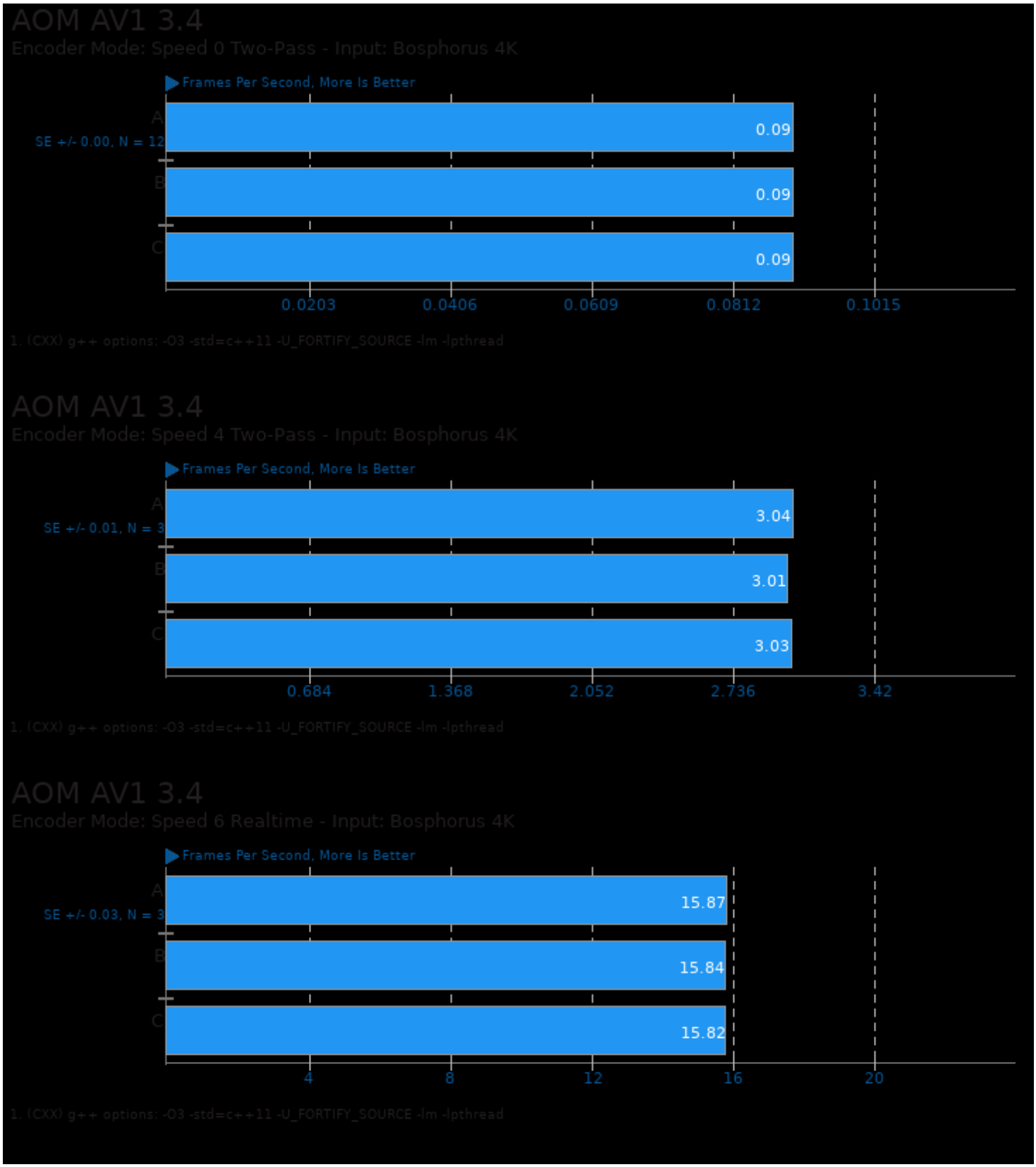
OS: Ubuntu 20.04, Kernel: 5.15.38-051538-generic (x86_64), Desktop: GNOME Shell 3.36.9, Display Server: X Server 1.20.13, OpenGL: 4.6 Mesa 21.2.6 (LLVM 12.0.0), Vulkan: 1.2.182, Compiler: GCC 9.4.0, File-System: ext4, Screen Resolution: 1920x1080

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-Av3uEd/gcc-9-9.4.0/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: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0x8608102
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 Retpolines IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

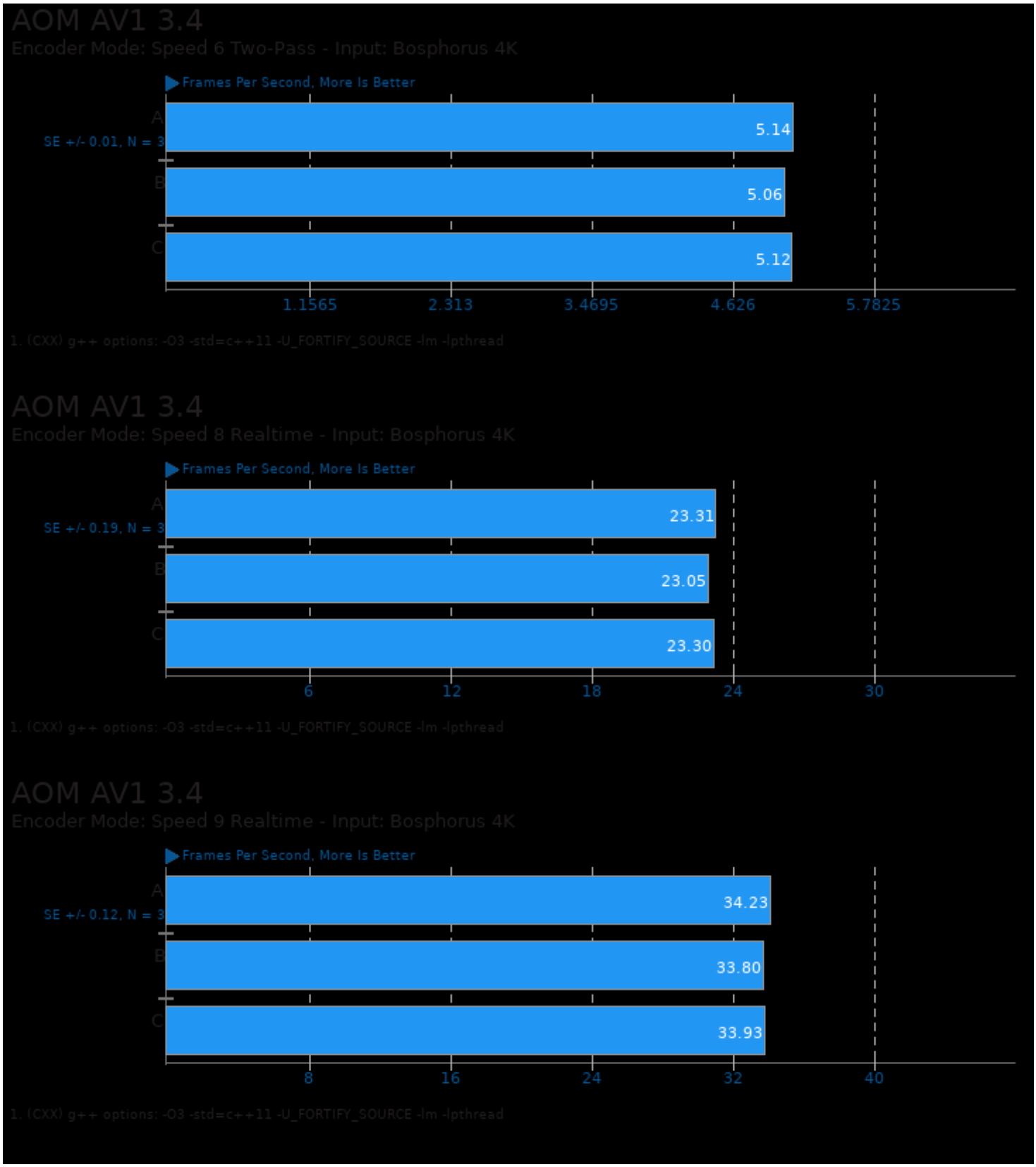
	A	B	C
AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)	0.09	0.09	0.09
Standard Deviation	3.2%		
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	**3.04**	**3.01**	3.03
Normalized	100%	99.01%	99.67%
Standard Deviation	0.6%		
AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	**15.87**	15.84	**15.82**
Normalized	100%	99.81%	99.68%
Standard Deviation	0.3%		
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	**5.14**	**5.06**	5.12
Normalized	100%	98.44%	99.61%
Standard Deviation	0.2%		
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	**23.31**	**23.05**	23.3
Normalized	100%	98.88%	99.96%
Standard Deviation	1.4%		
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	**34.23**	**33.8**	33.93
Normalized	100%	98.74%	99.12%
Standard Deviation	0.6%		
AOM AV1 - Speed 10 Realtime - Bosphorus 4K (FPS)	33.49	**33.02**	**33.72**
Normalized	99.32%	97.92%	100%
Standard Deviation	0.2%		

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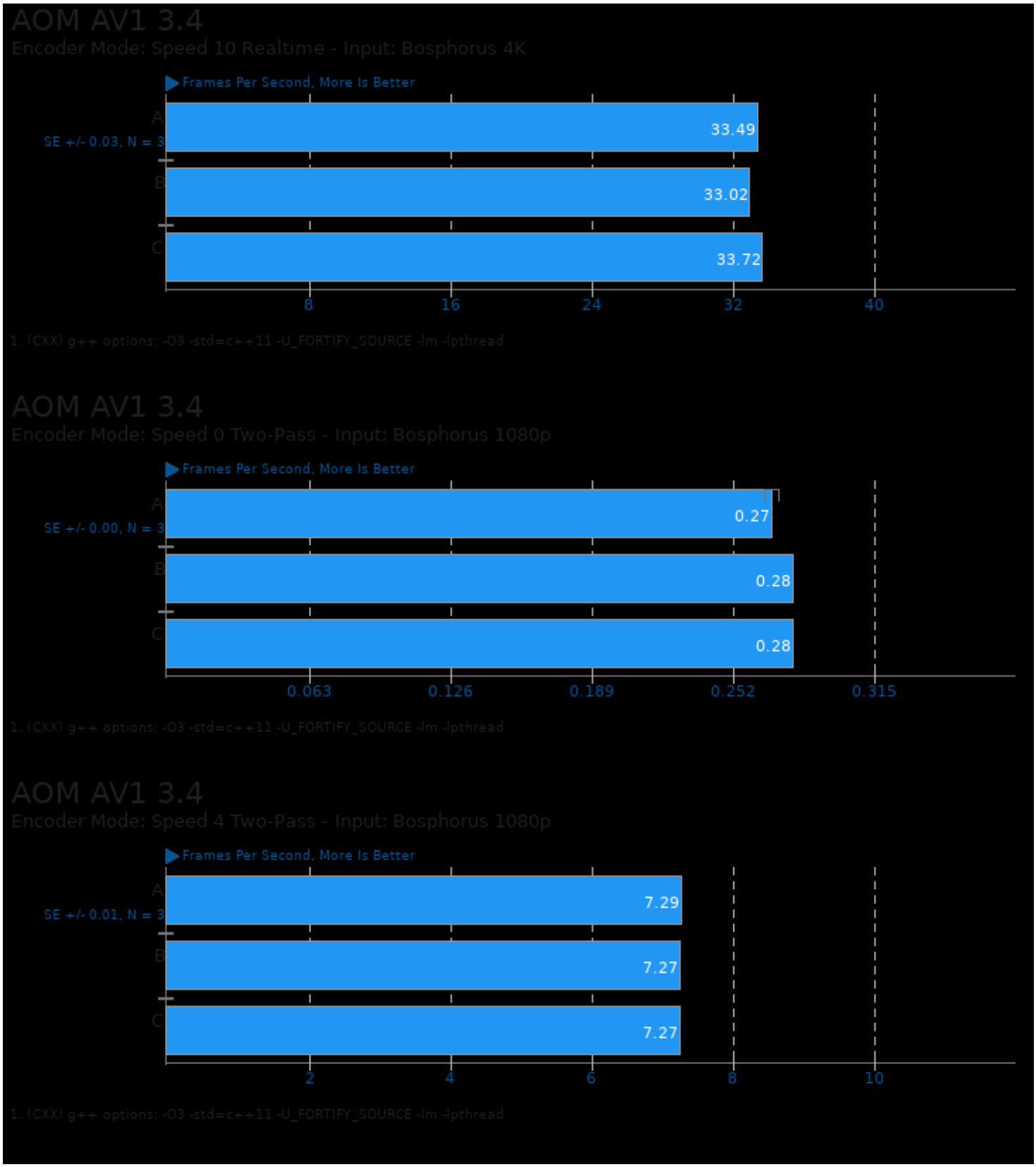
AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p (FPS)	**0.27**	**0.28**	**0.28**
Normalized	96.43%	100%	100%
Standard Deviation	2.1%		
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS)	**7.29**	**7.27**	**7.27**
Normalized	100%	99.73%	99.73%
Standard Deviation	0.1%		
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)	32.23	**32.33**	**31.91**
Normalized	99.69%	100%	98.7%
Standard Deviation	2.3%		
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS)	**15.72**	**15.63**	15.67
Normalized	100%	99.43%	99.68%
Standard Deviation	0.9%		
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)	72.13	**67.21**	**72.39**
Normalized	99.64%	92.84%	100%
Standard Deviation	2.5%		
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)	**86.70**	**80.81**	81.44
Normalized	100%	93.21%	93.93%
Standard Deviation	3.3%		
AOM AV1 - Speed 10 Realtime - Bosphorus 1080p (FPS)	**90.87**	90.28	**89.75**
Normalized	100%	99.35%	98.77%
Standard Deviation	0.3%		
7-Zip Compression - Compression Rating (MIPS)	**36375**	**36513**	36381
Normalized	99.62%	100%	99.64%
Standard Deviation	0.8%		
7-Zip Compression - D.R (MIPS)	**37046**	**38379**	38219
Normalized	96.53%	100%	99.58%
Standard Deviation	2.6%		


AOM AV1 3.4
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
SE +/- 0.00, N = 12
0.09
0.09
0.09
0.0203
0.0406
0.0609
0.0812
0.1015
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.4
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
SE +/- 0.01, N = 3
3.04
3.01
3.03
0.684
1.368
2.052
2.736
3.42
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.4
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
SE +/- 0.03, N = 3
15.87
15.84
15.82
4
8
12
16
20
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

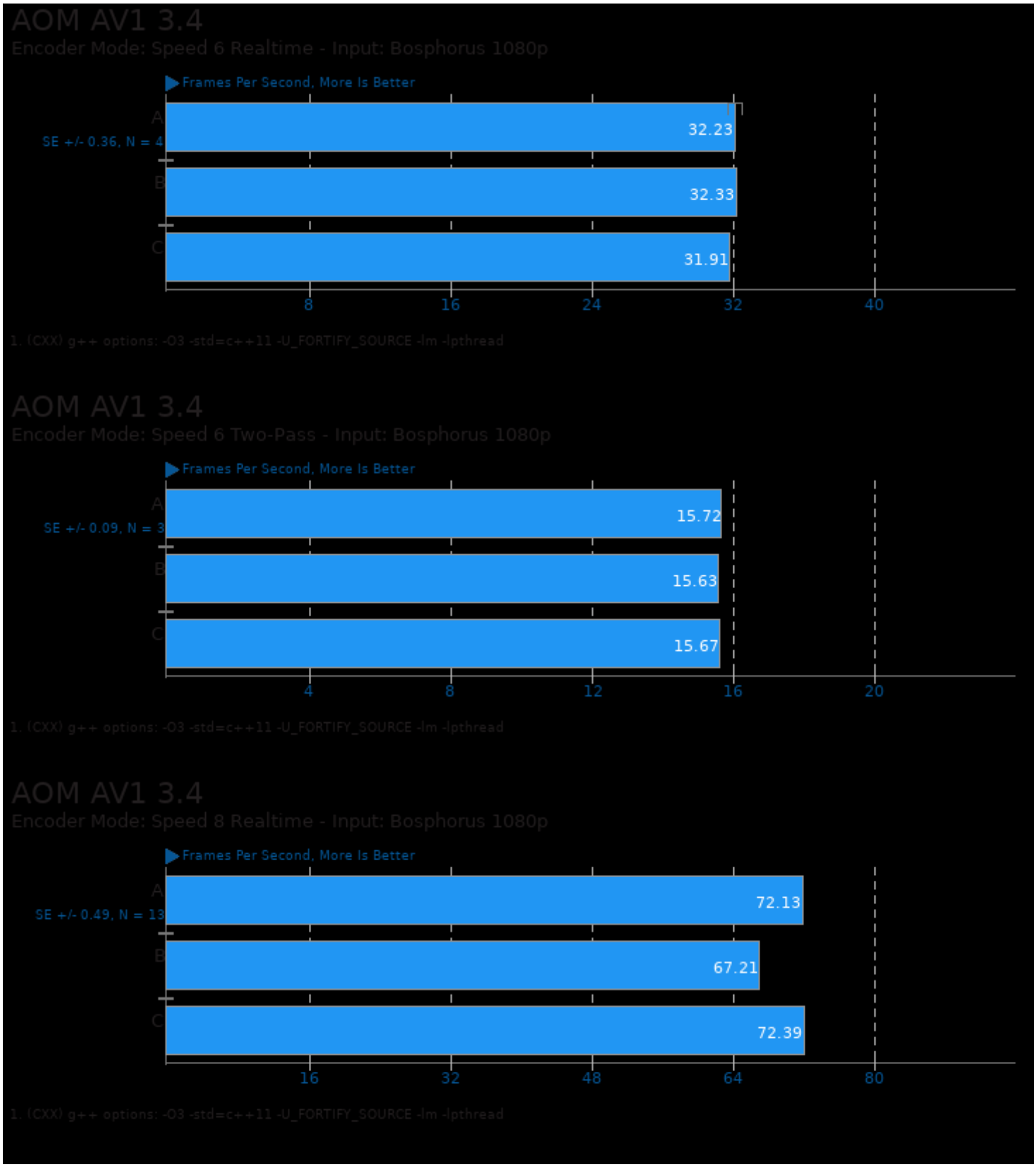
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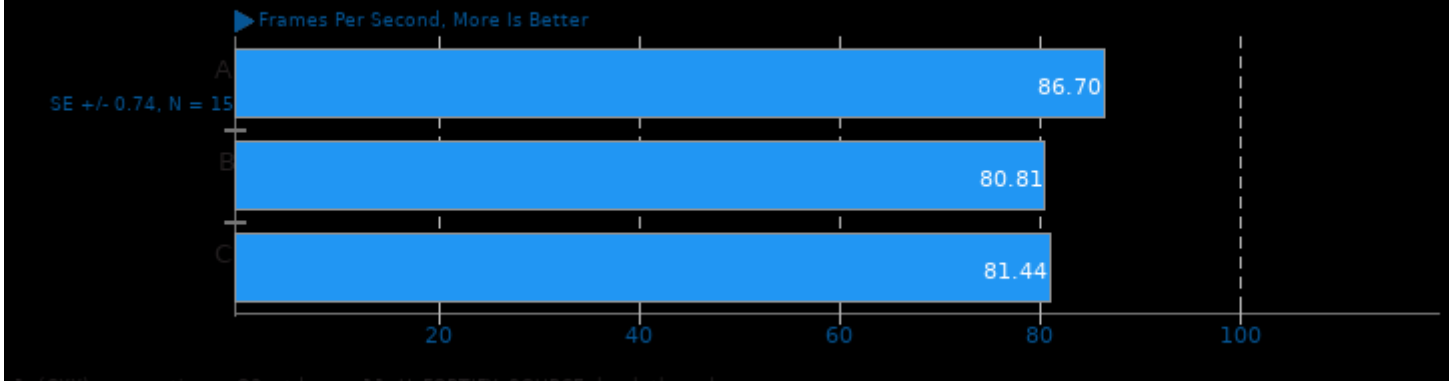
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AOM AV1 3.4

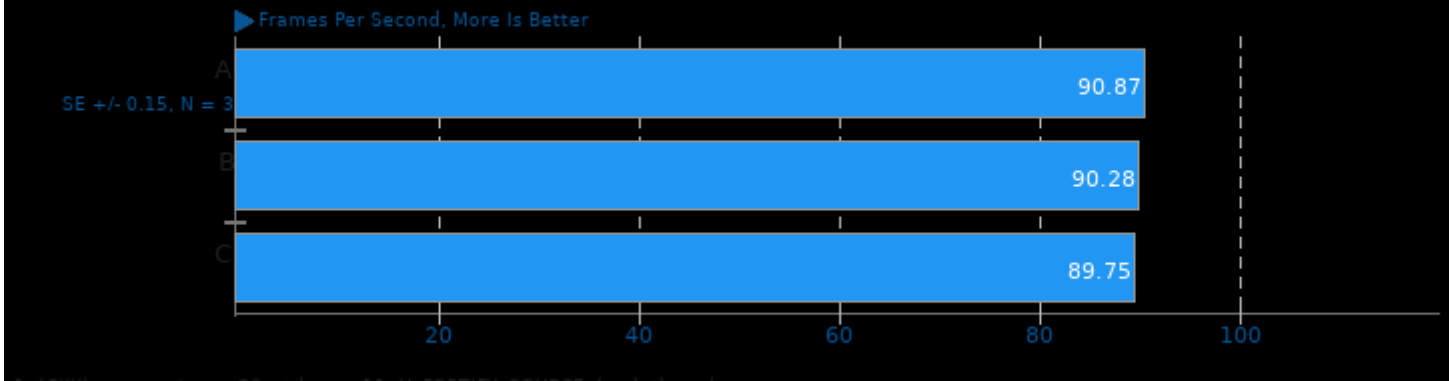
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p



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

AOM AV1 3.4

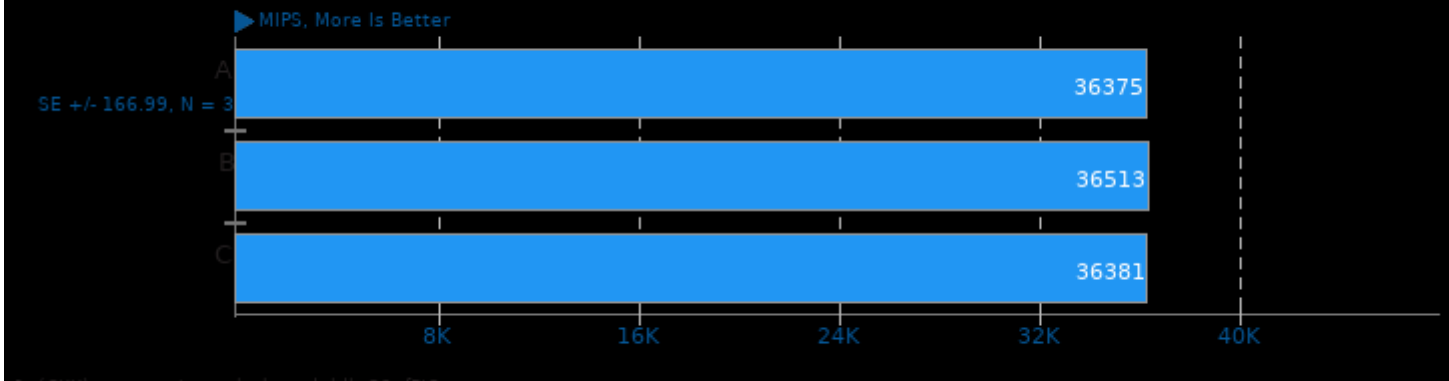
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 1080p



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

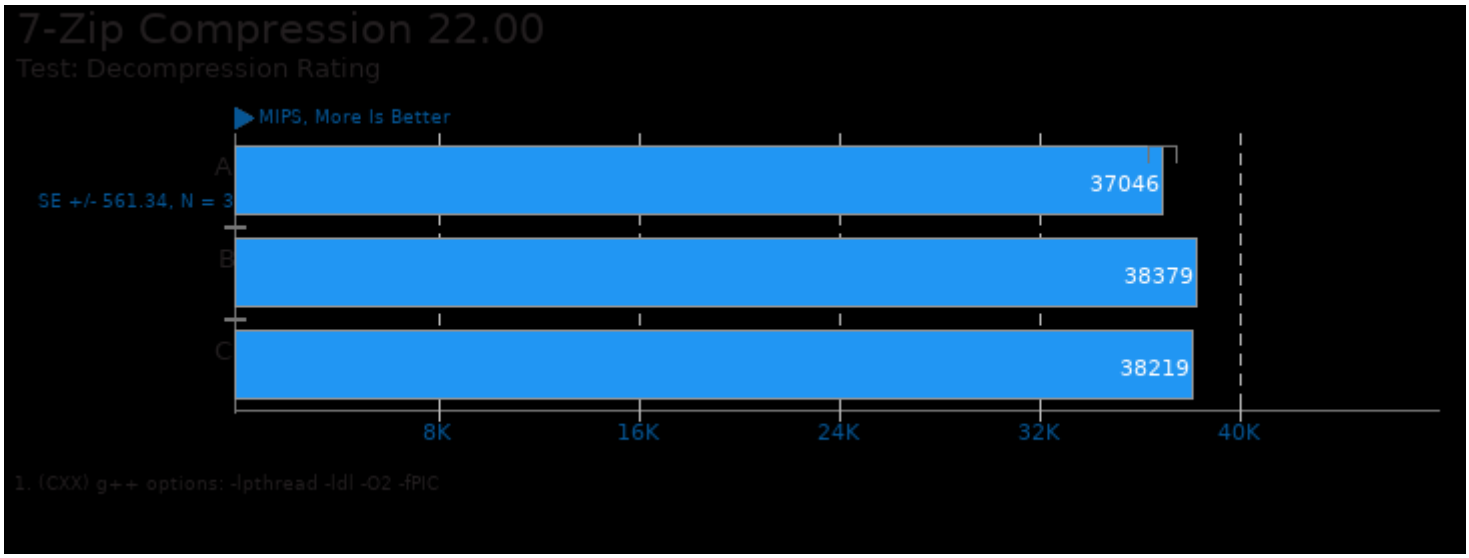
7-Zip Compression 22.00

Test: Compression Rating



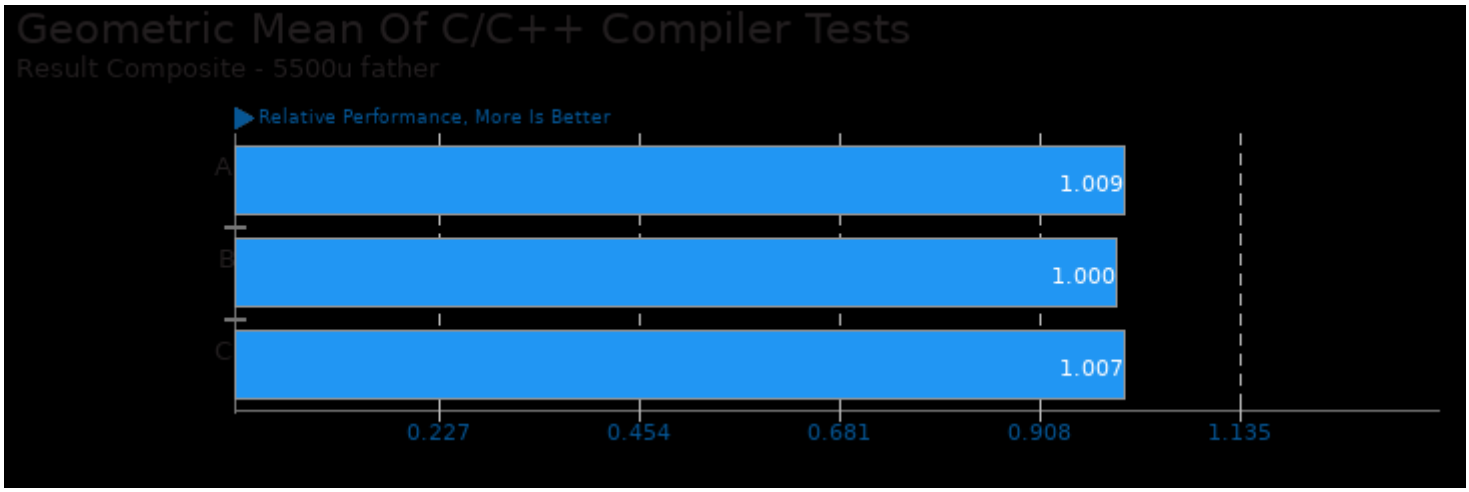
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

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



Geometric mean based upon tests: pts/compress-7zip and pts/aom-av1



Geometric mean based upon tests: pts/aom-av1 and pts/compress-7zip

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 14:25.