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svt-av1 ryzen 7

AMD Ryzen 7 4700U testing with a LENOVO LNVNB161216 (DTCN18WWV1.04 BIOS) and AMD Renoir 512MB on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 50% of the tests.

Based on the geometric mean of all complete results, the fastest (A) was 1.009x the speed of the slowest (C). B was 0.999x the speed of A and C was 0.992x the speed of B.

Test Systems:

A

B

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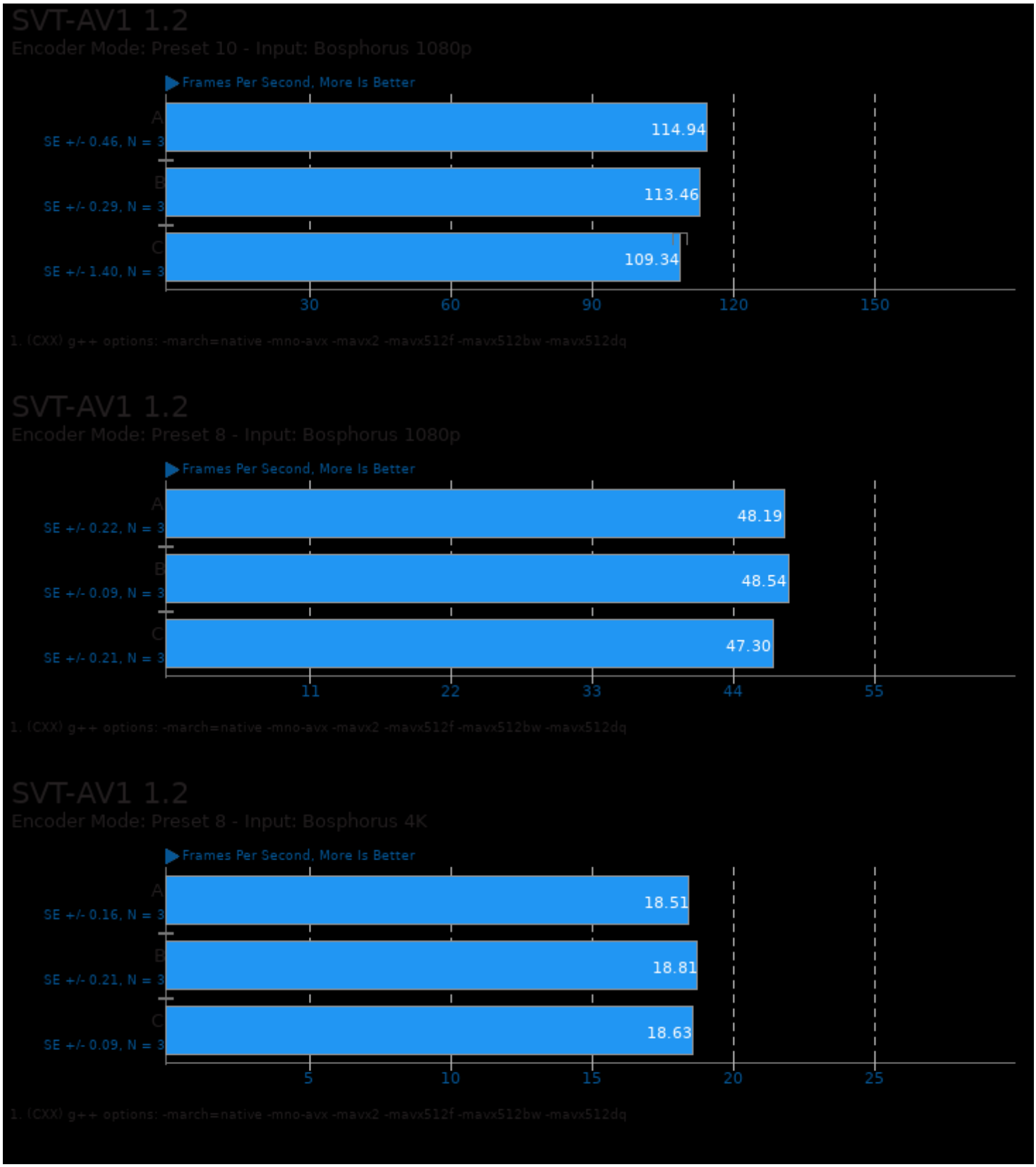
C

Processor: AMD Ryzen 7 4700U @ 2.00GHz (8 Cores), Motherboard: LENOVO LNVNB161216 (DTCN18WWV1.04 BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB SAMSUNG MZALQ512HALU-000L2, Graphics: AMD Renoir 512MB (1600/400MHz), Audio: AMD Renoir Radeon HD Audio, Network: Intel Wi-Fi 6 AX200

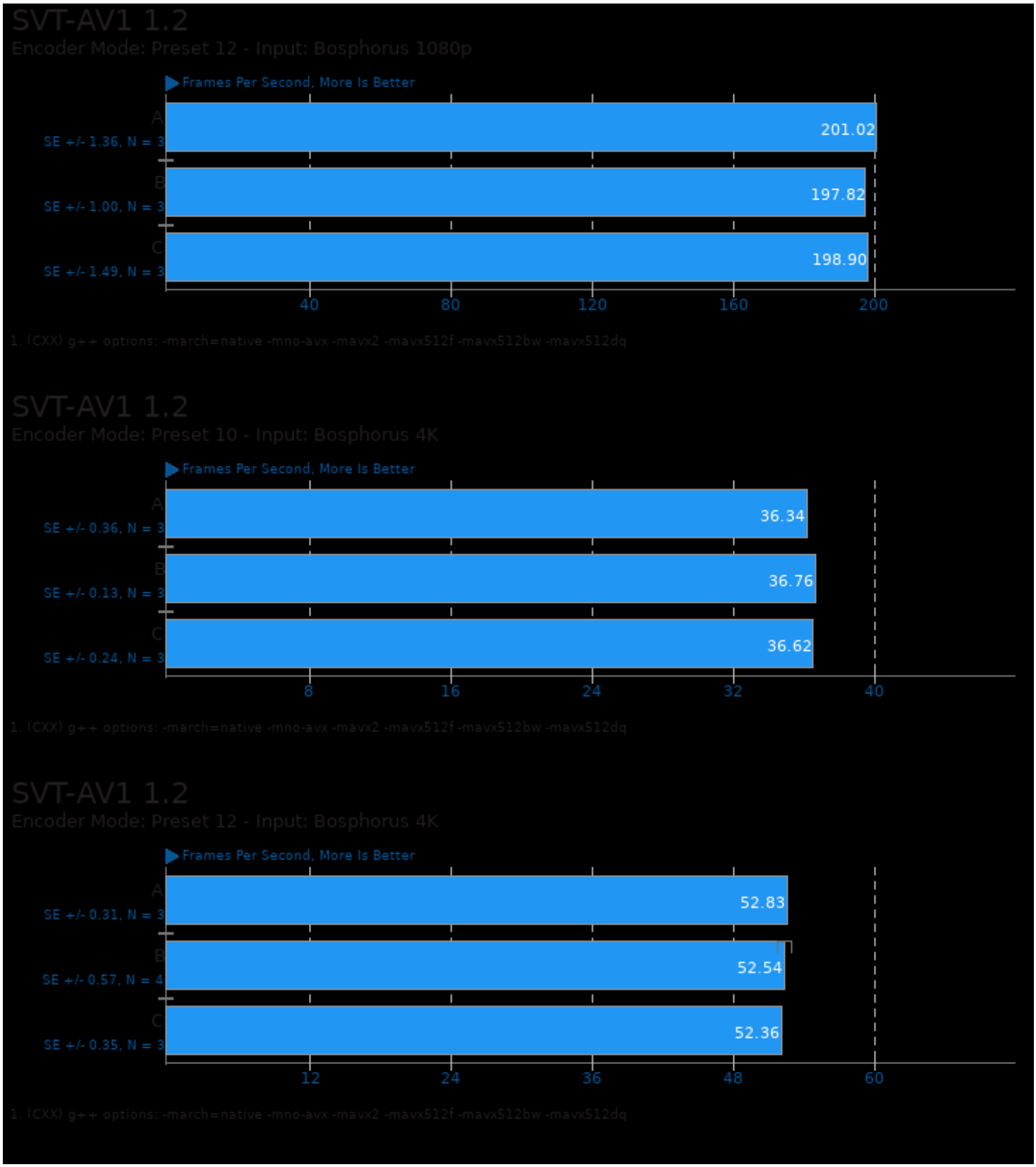
OS: Ubuntu 22.04, Kernel: 5.18.8-051808-generic (x86_64), Desktop: GNOME Shell 42.2, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.1 (LLVM 13.0.1 DRM 3.46), Vulkan: 1.3.204, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --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-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-gBFGDP/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-gBFGDP/gcc-11-11.2.0/debian/tmp-gcn/usr --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) - Platform Profile: balanced - CPU Microcode: 0x8600102 - ACPI Profile: balanced
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

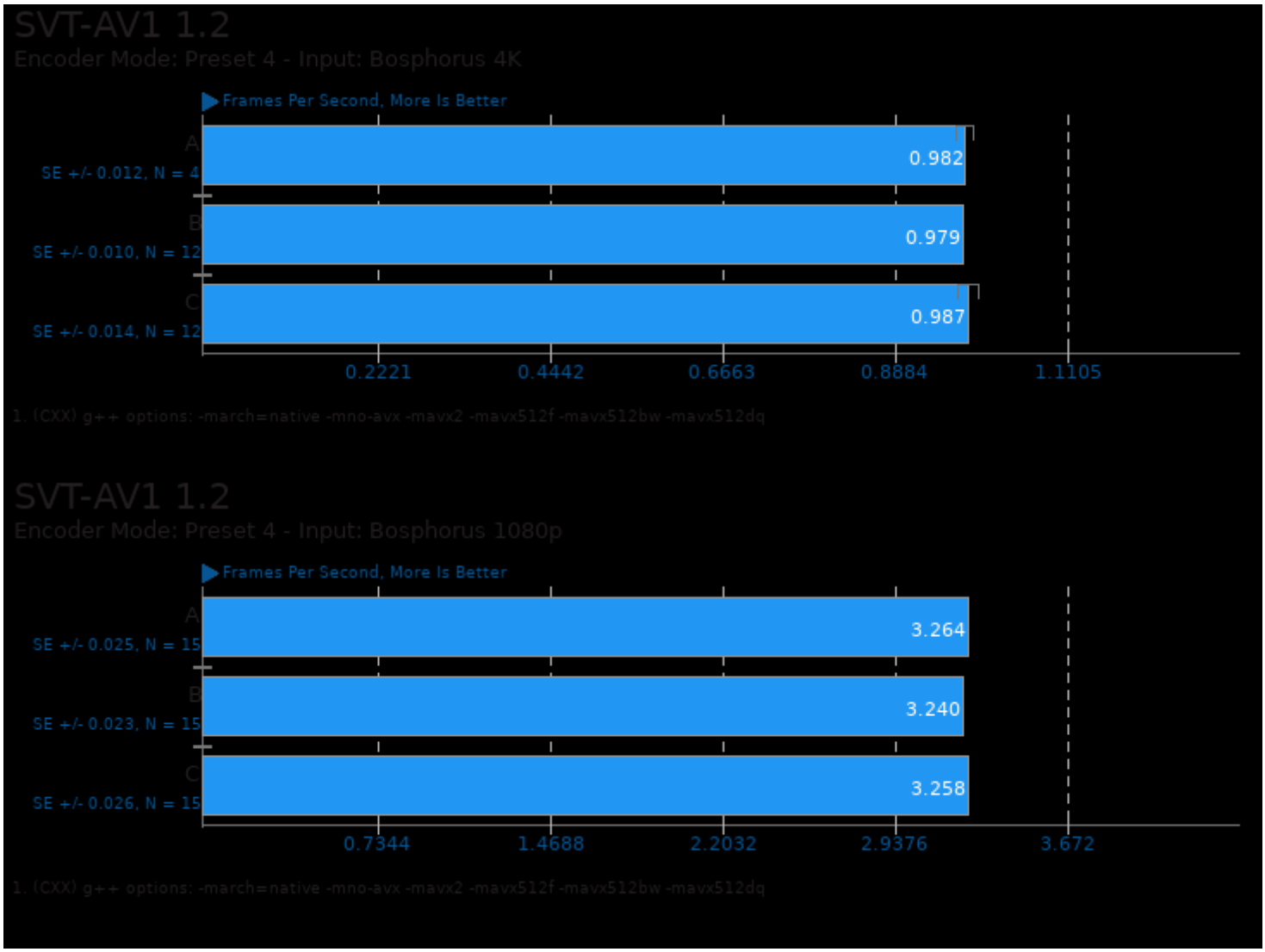
	A	B	C
SVT-AV1 - Preset 10 - Bosphorus 1080p	**114.944**	113.460	**109.337**
Normalized	100%	98.71%	95.12%
Standard Deviation	0.7%	0.4%	2.2%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	48.189	**48.543**	**47.298**
Normalized	99.27%	100%	97.44%
Standard Deviation	0.8%	0.3%	0.8%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	**18.506**	**18.813**	18.628
Normalized	98.37%	100%	99.02%
Standard Deviation	1.5%	2%	0.9%
SVT-AV1 - Preset 12 - Bosphorus 1080p	**201.023**	**197.817**	198.904
Normalized	100%	98.41%	98.95%
Standard Deviation	1.2%	0.9%	1.3%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	**36.341**	**36.759**	36.617
Normalized	98.86%	100%	99.61%
Standard Deviation	1.7%	0.6%	1.1%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**52.829**	52.540	**52.358**
Normalized	100%	99.45%	99.11%
Standard Deviation	1%	2.2%	1.1%
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	0.982	**0.979**	**0.987**
Normalized	99.49%	99.19%	100%
Standard Deviation	2.4%	3.4%	5%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**3.264**	**3.240**	3.258
Normalized	100%	99.26%	99.82%
Standard Deviation	3%	2.8%	3.1%


SVT-AV1 1.2
Encoder Mode: Preset 10 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
SE +/- 0.46, N = 3
114.94
B
SE +/- 0.29, N = 3
113.46
C
SE +/- 1.40, N = 3
109.34
30
60
90
120
150
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
SE +/- 0.22, N = 3
48.19
B
SE +/- 0.09, N = 3
48.54
C
SE +/- 0.21, N = 3
47.30
11
22
33
44
55
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
SE +/- 0.16, N = 3
18.51
B
SE +/- 0.21, N = 3
18.81
C
SE +/- 0.09, N = 3
18.63
5
10
15
20
25
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 16:39.