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ryzen 4800U SVT-AV1 0.9

AMD Ryzen 7 4800U testing with a ASRock 4X4-4000 (P1.30Q BIOS) and AMD Renoir 512MB on Ubuntu 21.10 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 1.006x the speed of the slowest (C). B was 0.998x the speed of A and C was 0.995x the speed of B.

Test Systems:

A

B

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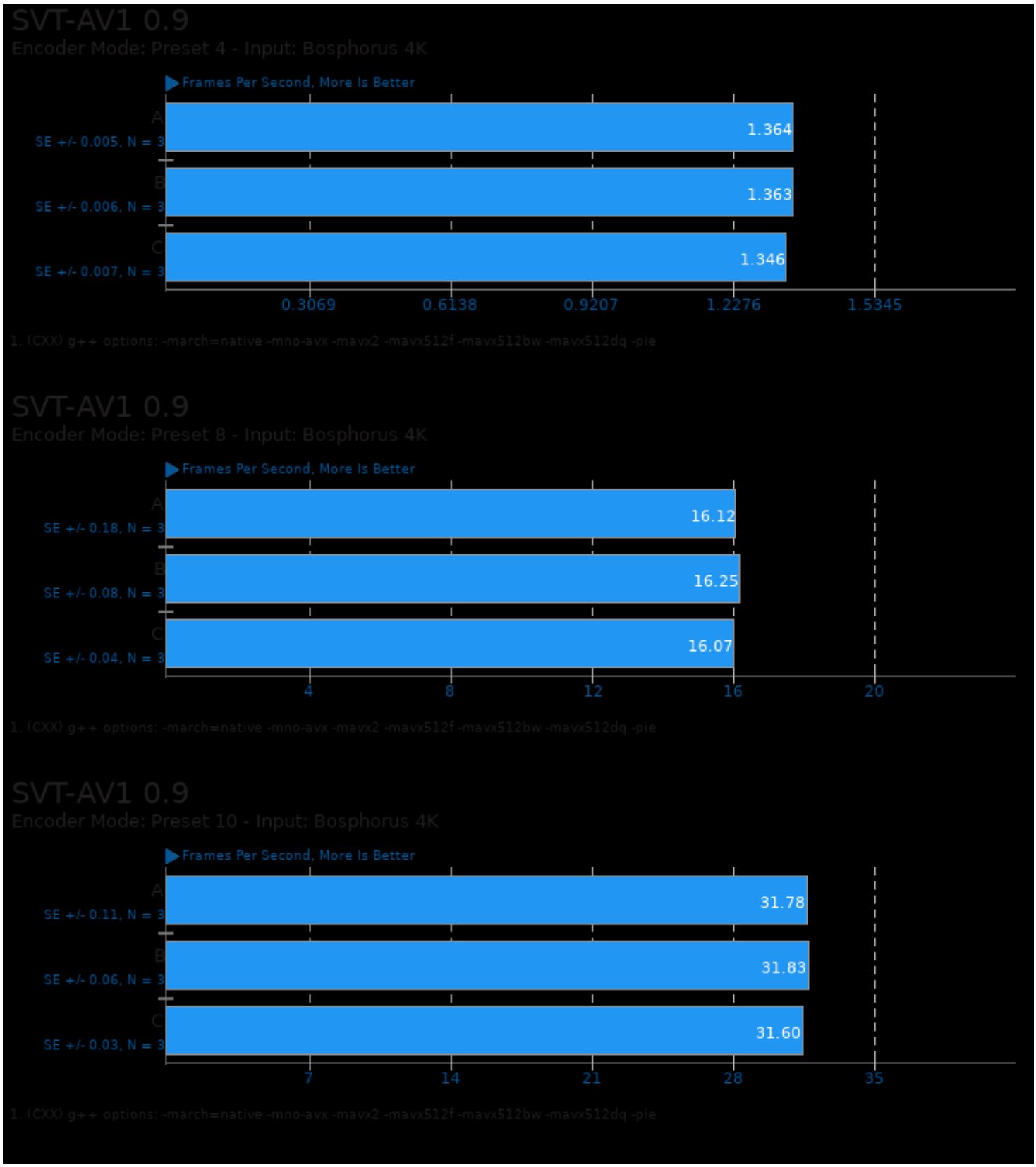
C

Processor: AMD Ryzen 7 4800U @ 1.80GHz (8 Cores / 16 Threads), Motherboard: ASRock 4X4-4000 (P1.30Q BIOS), Chipset: AMD Renoir/Cezanne, Memory: 16GB, Disk: 512GB TS512GMTS952T-I, Graphics: AMD Renoir 512MB (1750/400MHz), Audio: AMD Renoir Radeon HD Audio, Monitor: DELL P2415Q, Network: Realtek RTL8125 2.5GbE + Realtek RTL8111/8168/8411 + Intel 8265 / 8275

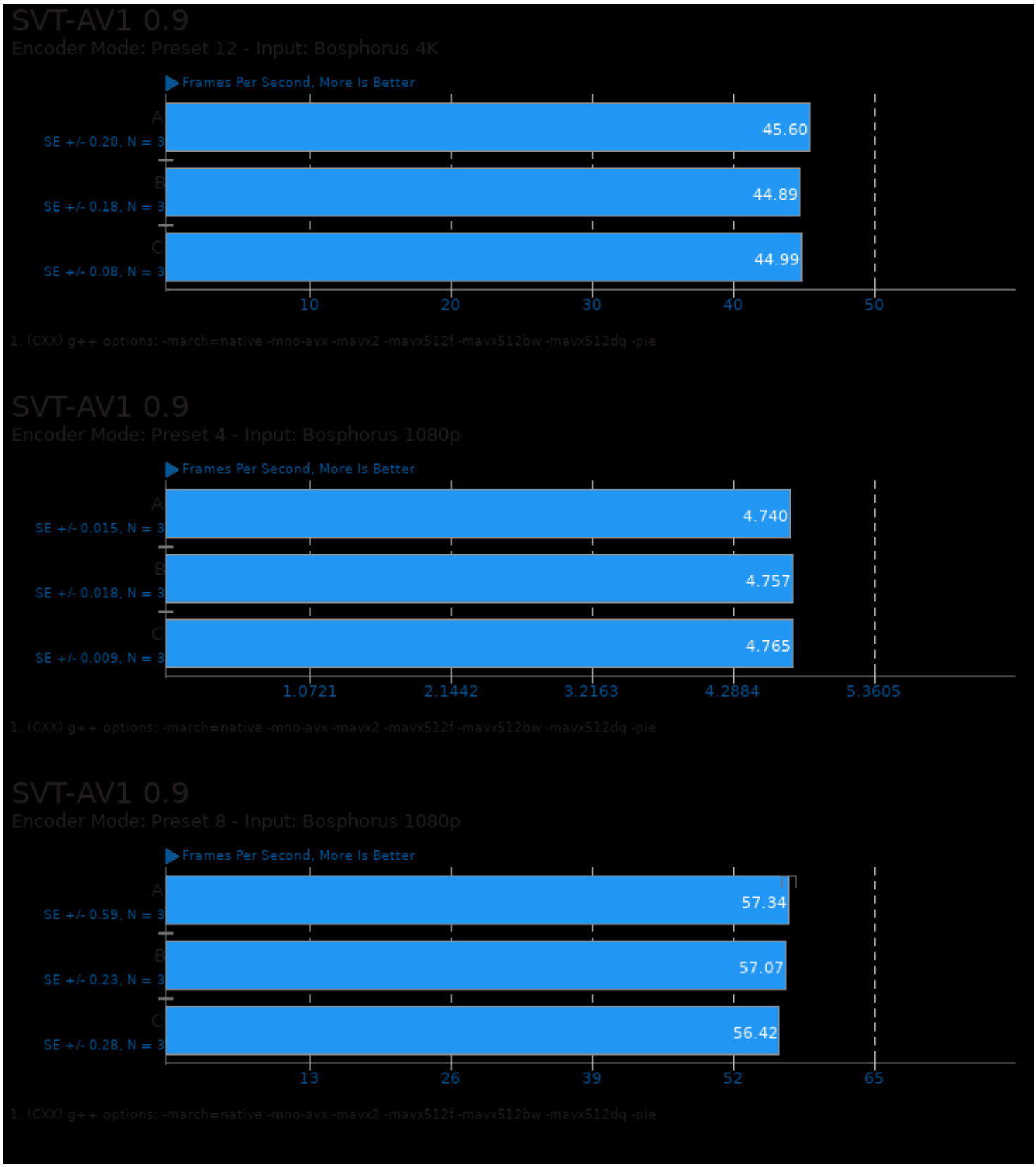
OS: Ubuntu 21.10, Kernel: 5.16.0-051600rc8daily20220108-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.0-devel (git-9cb9101 2022-01-08 impish-oibaf-ppa) (LLVM 13.0.0 DRM 3.44), Vulkan: 1.2.199, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 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-ZPT0kp/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-ZPT0kp/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) - CPU Microcode: 0x8600103
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: 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 Full AMD retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

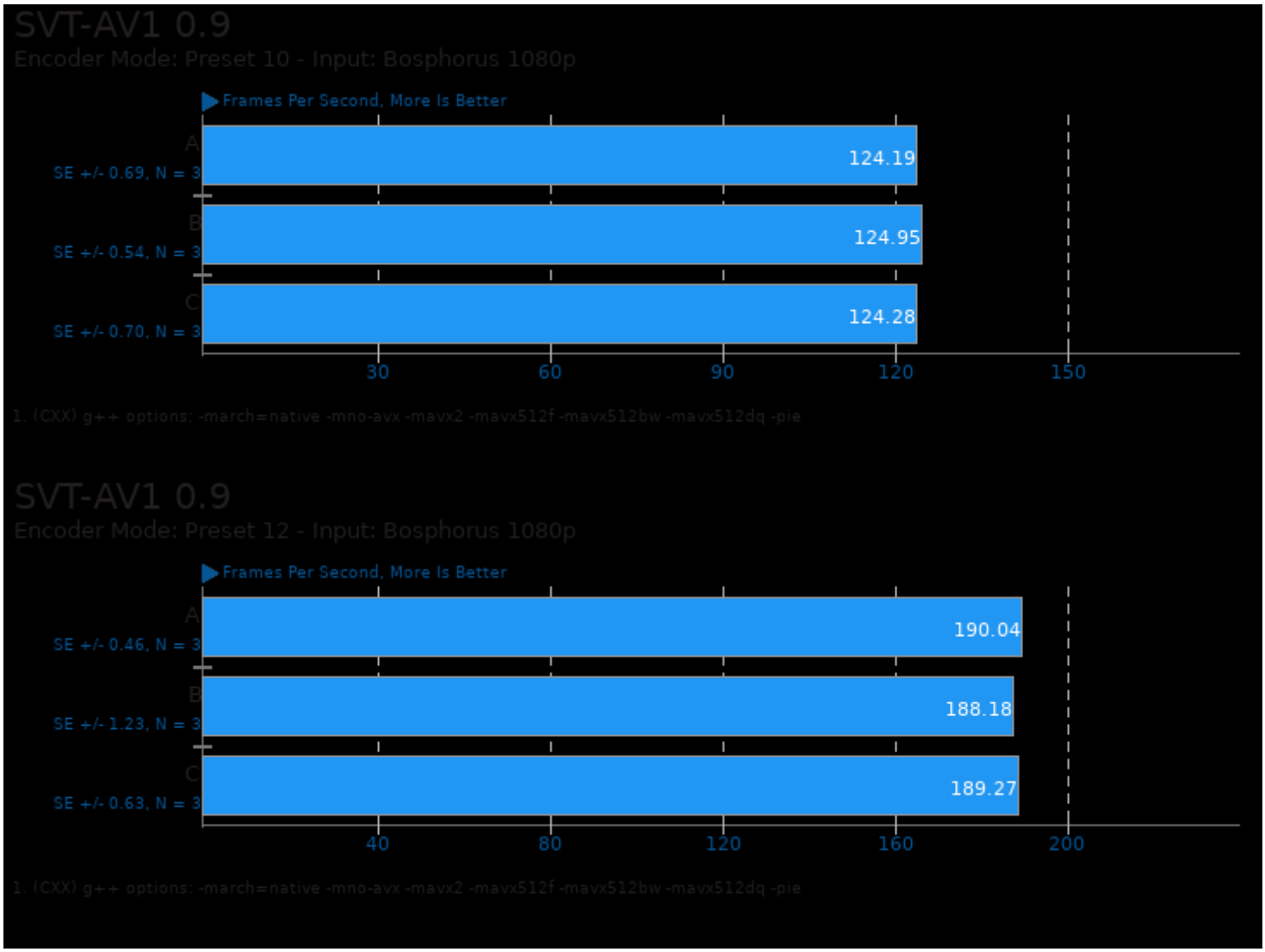
	A	B	C
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	**1.364**	1.363	**1.346**
Normalized	100%	99.93%	98.68%
Standard Deviation	0.6%	0.7%	0.9%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	16.122	**16.251**	**16.074**
Normalized	99.21%	100%	98.91%
Standard Deviation	1.9%	0.8%	0.4%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	31.783	**31.827**	**31.597**
Normalized	99.86%	100%	99.28%
Standard Deviation	0.6%	0.3%	0.2%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**45.603**	**44.890**	44.985
Normalized	100%	98.44%	98.64%
Standard Deviation	0.7%	0.7%	0.3%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**4.740**	4.757	**4.765**
Normalized	99.48%	99.83%	100%
Standard Deviation	0.5%	0.6%	0.3%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	**57.340**	57.065	**56.419**
Normalized	100%	99.52%	98.39%
Standard Deviation	1.8%	0.7%	0.8%
SVT-AV1 - Preset 10 - Bosphorus 1080p	**124.188**	**124.946**	124.276
Normalized	99.39%	100%	99.46%
Standard Deviation	1%	0.8%	1%
SVT-AV1 - Preset 12 - Bosphorus 1080p	**190.035**	**188.181**	189.270
Normalized	100%	99.02%	99.6%
Standard Deviation	0.4%	1.1%	0.6%


SVT-AV1 0.9
Encoder Mode: Preset 4 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
SE +/- 0.005, N = 3
1.364
B
SE +/- 0.006, N = 3
1.363
C
SE +/- 0.007, N = 3
1.346
0.3069
0.6138
0.9207
1.2276
1.5345
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie
SVT-AV1 0.9
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
SE +/- 0.18, N = 3
16.12
B
SE +/- 0.08, N = 3
16.25
C
SE +/- 0.04, N = 3
16.07
4
8
12
16
20
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie
SVT-AV1 0.9
Encoder Mode: Preset 10 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
SE +/- 0.11, N = 3
31.78
B
SE +/- 0.06, N = 3
31.83
C
SE +/- 0.03, N = 3
31.60
7
14
21
28
35
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 03:53.