

www.phoronix-test-suite.com

svt av1 5950X

AMD Ryzen 7 5800X3D 8-Core testing with a ASUS ROG CROSSHAIR VIII HERO (4201 BIOS) and Gigabyte AMD Radeon RX 6600 8GB 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 (C) was 1x the speed of the slowest (D). B was 1x the speed of C, A was 1x the speed of B, D was 1x the speed of A.

Test Systems:

A

B

svt av1 5950X

C

D

Processor: AMD Ryzen 7 5800X3D 8-Core @ 3.40GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VIII HERO (4201 BIOS), Chipset: AMD Starship/Matisse, Memory: 32GB, Disk: 1000GB Western Digital WDS100T1X0E-00AFY0, Graphics: Gigabyte AMD Radeon RX 6600 8GB (2750/875MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek RTL8125 2.5GbE + Intel I211

OS: Ubuntu 22.04, Kernel: 5.19.0-rc6-drm-next-28july (x86_64), Desktop: GNOME Shell 42.2, Display Server: X Server 1.21.1.3 + Wayland, OpenGL: 4.6 Mesa 22.2.0-devel (git-c6ded153d1) (LLVM 12.0.0 DRM 3.48), Vulkan: 1.3.211, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 3840x2160

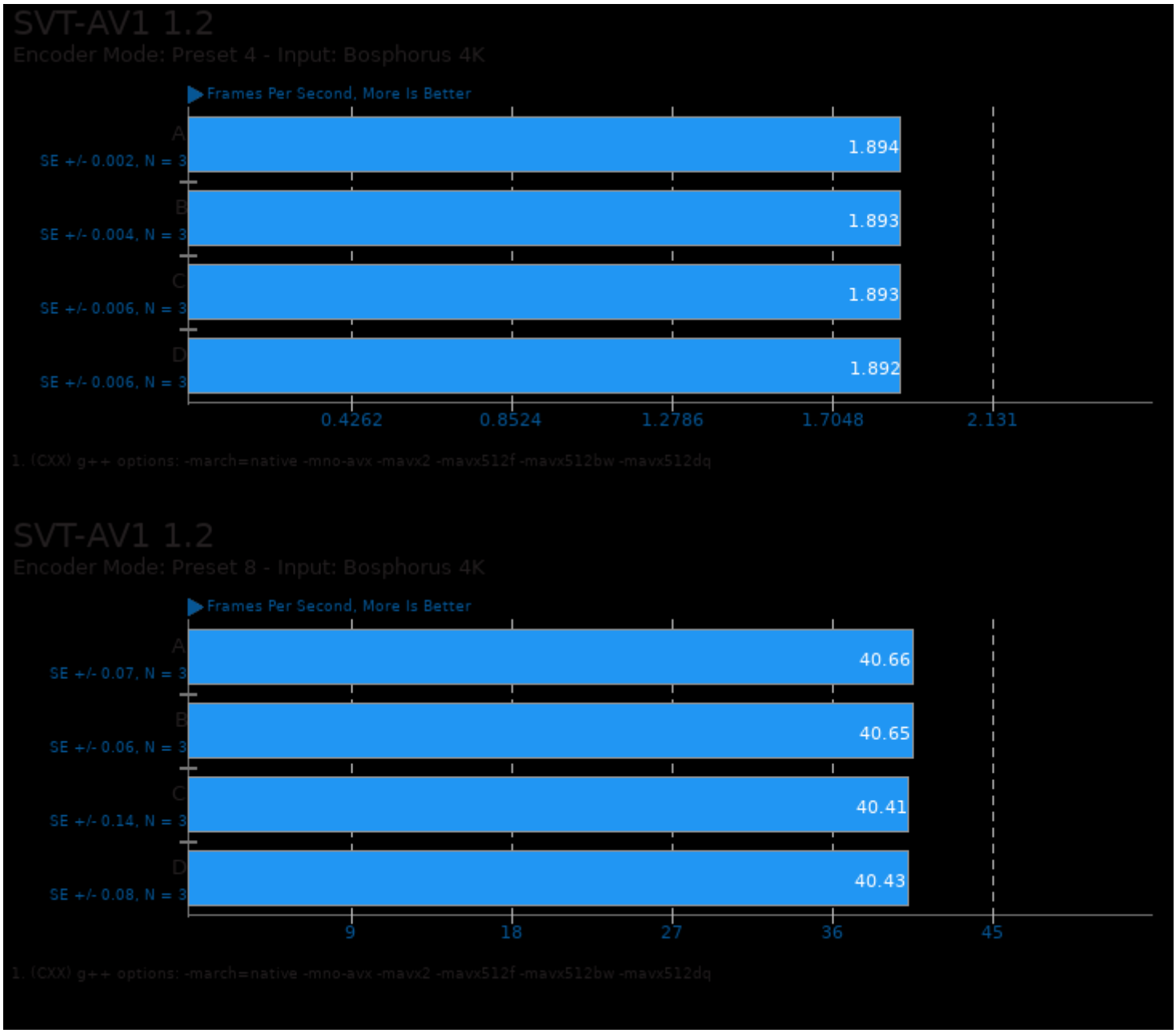
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --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) - CPU Microcode: 0xa20120a
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: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

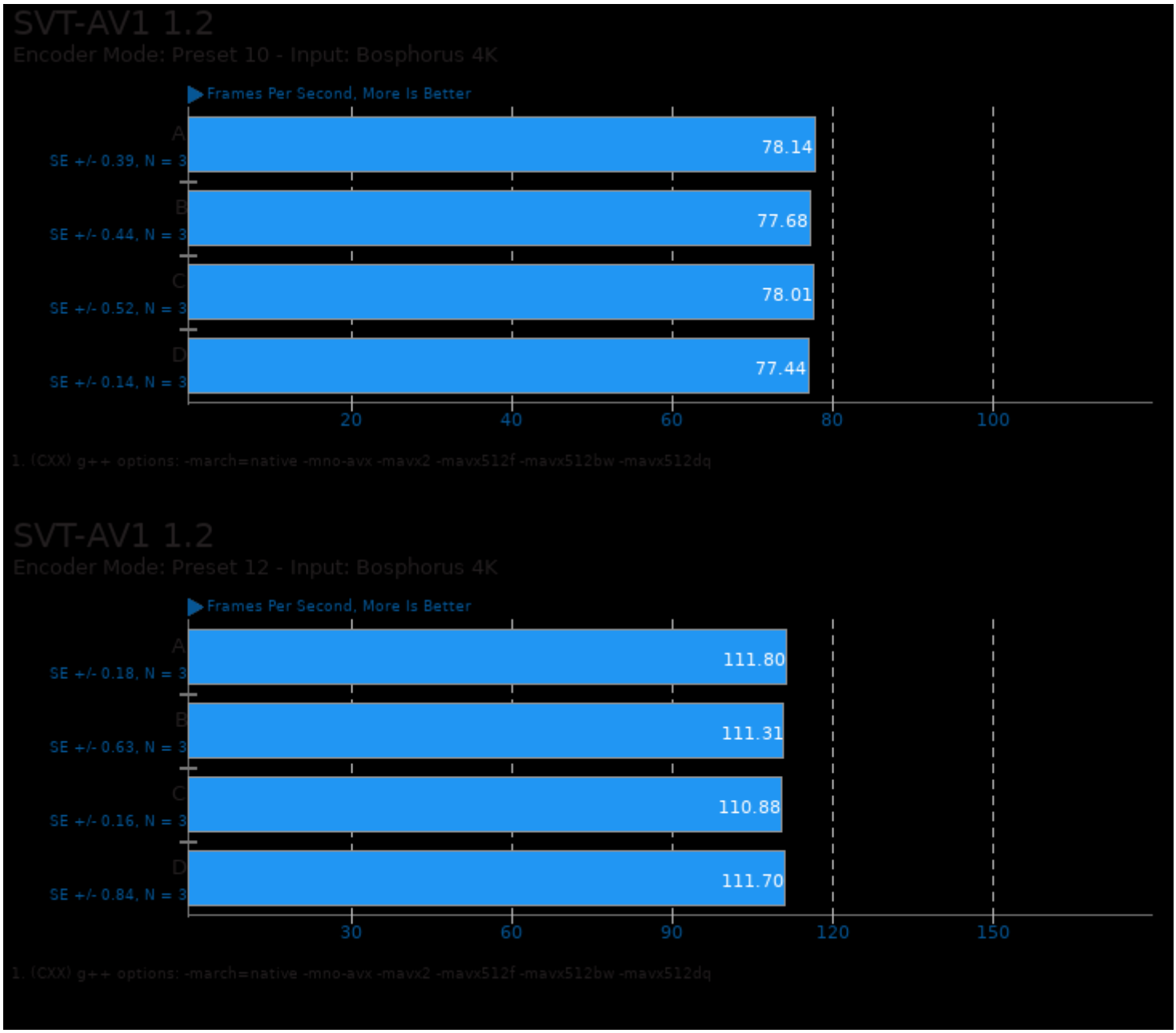
	A	B	C	D
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	**1.894**	1.893	1.893	**1.892**
Normalized	100%	99.95%	99.95%	99.89%
Standard Deviation	0.2%	0.3%	0.6%	0.5%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	**40.663**	40.648	**40.409**	40.434
Normalized	100%	99.96%	99.38%	99.44%
Standard Deviation	0.3%	0.3%	0.6%	0.3%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	**78.137**	77.684	78.010	**77.443**
Normalized	100%	99.42%	99.84%	99.11%
Standard Deviation	0.9%	1%	1.1%	0.3%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**111.804**	111.310	**110.881**	111.703
Normalized	100%	99.56%	99.17%	99.91%
Standard Deviation	0.3%	1%	0.3%	1.3%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	5.668	**5.715**	**5.653**	5.677
Normalized	99.18%	100%	98.92%	99.34%
Standard Deviation	0.2%	0.5%	0.4%	0.3%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	**109.518**	**109.792**	109.588	109.584
Normalized	99.75%	100%	99.81%	99.81%
Standard Deviation	1.1%	0.6%	0.4%	0.4%

svt av1 5950X

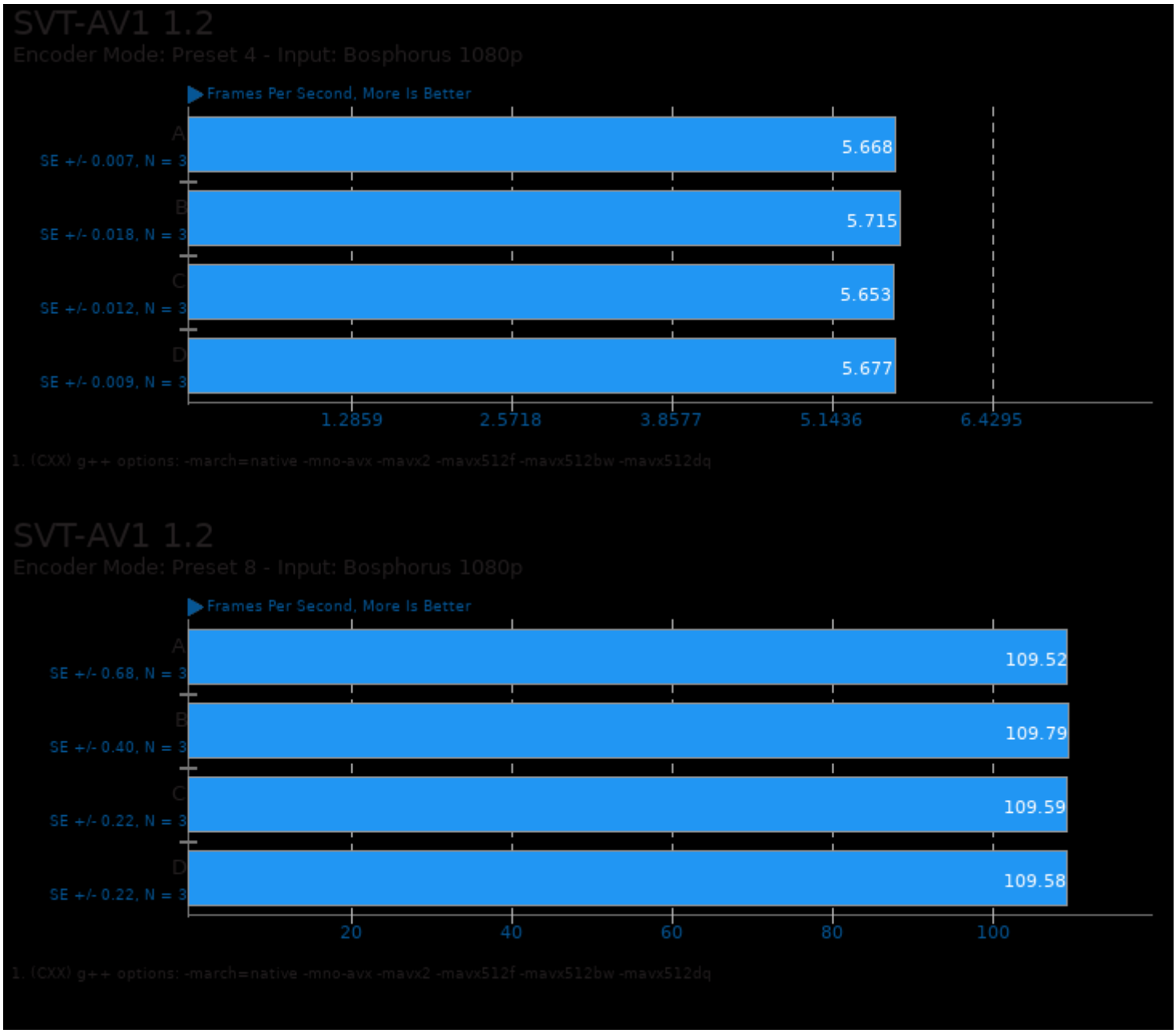
SVT-AV1 - Preset 10 - Bosphorus 1080p (FPS)	247.987	**246.664**	**249.430**	248.578
Normalized	99.42%	98.89%	100%	99.66%
Standard Deviation	0.3%	0.6%	0.2%	0.9%
SVT-AV1 - Preset 12 - Bosphorus 1080p (FPS)	**441.014**	443.766	**447.154**	445.160
Normalized	98.63%	99.24%	100%	99.55%
Standard Deviation	0.4%	0.6%	0.3%	1.3%

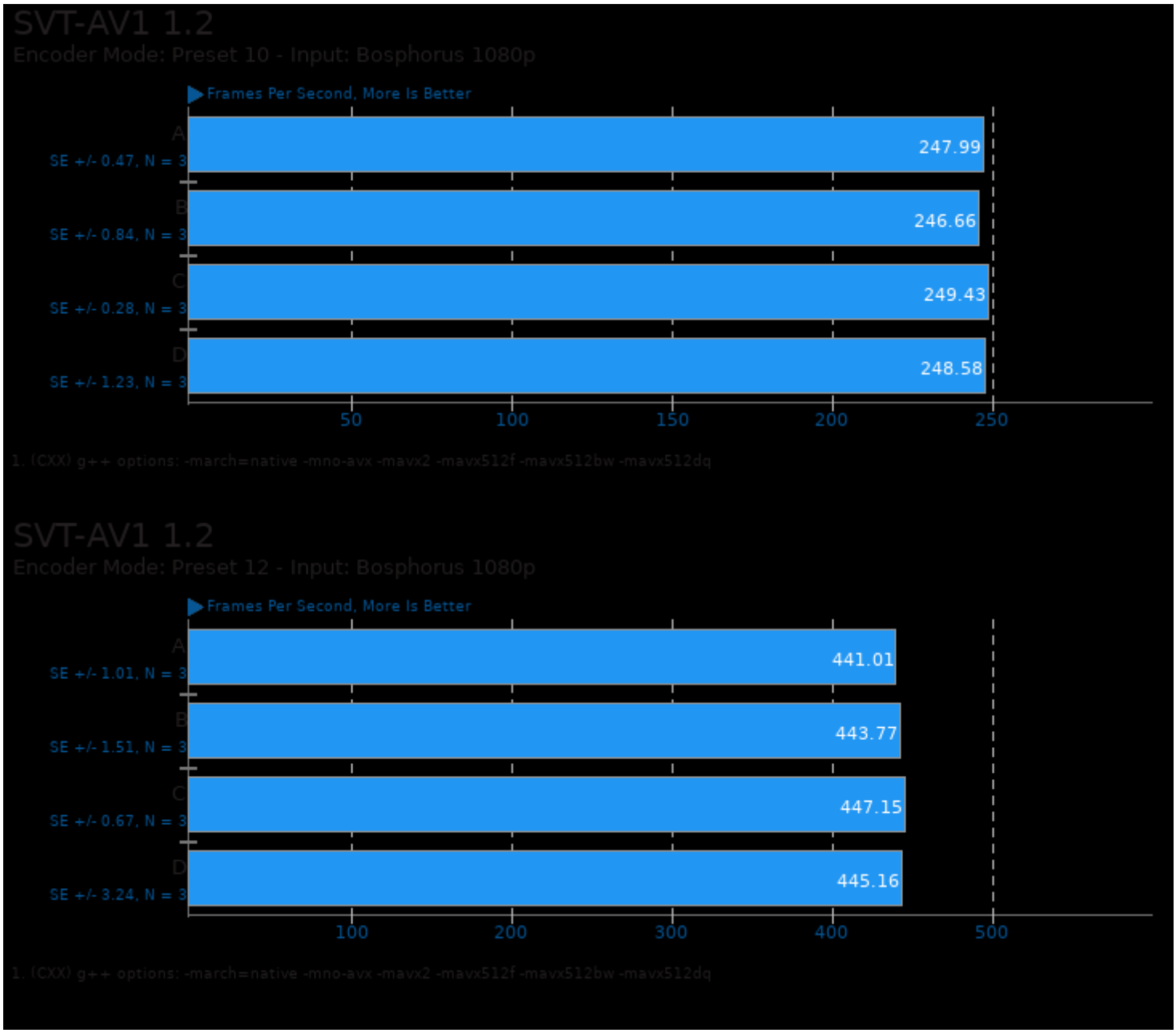
svt av1 5950X




SVT-AV1 1.2
Encoder Mode: Preset 10 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
SE +/- 0.39, N = 3
78.14
B
SE +/- 0.44, N = 3
77.68
C
SE +/- 0.52, N = 3
78.01
D
SE +/- 0.14, N = 3
77.44
20
40
60
80
100
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 12 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
SE +/- 0.18, N = 3
111.80
B
SE +/- 0.63, N = 3
111.31
C
SE +/- 0.16, N = 3
110.88
D
SE +/- 0.84, N = 3
111.70
30
60
90
120
150
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

svt av1 5950X





This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 05:19.