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svt av1 tgl

Intel Core i7-1165G7 testing with a Dell 0GG9PT (3.3.0 BIOS) and Intel Xe TGL GT2 3GB on Ubuntu 21.10 via the Phoronix Test Suite.

Automated Executive Summary

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

Based on the geometric mean of all complete results, the fastest (b) was 1.054x the speed of the slowest (a). c was 0.975x the speed of b and a was 0.974x the speed of c.

Test Systems:

a

b

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c

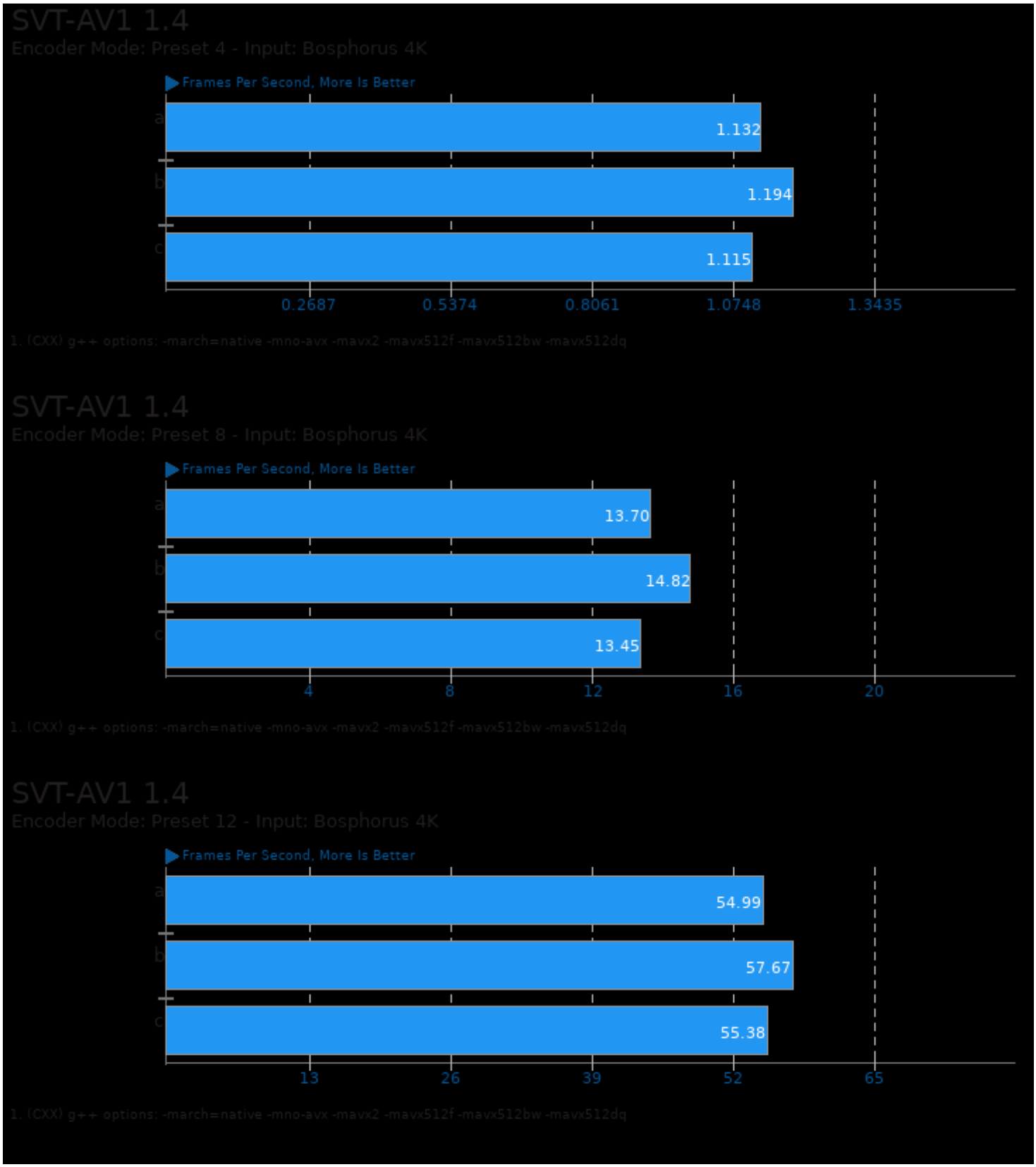
Processor: Intel Core i7-1165G7 @ 4.70GHz (4 Cores / 8 Threads), Motherboard: Dell 0GG9PT (3.3.0 BIOS), Chipset: Intel Tiger Lake-LP, Memory: 16GB, Disk: Kioxia KBG40ZNS256G NVMe 256GB, Graphics: Intel Xe TGL GT2 3GB (1300MHz), Audio: Realtek ALC289, Network: Intel Wi-Fi 6 AX201

OS: Ubuntu 21.10, Kernel: 5.13.0-52-generic (x86_64), Desktop: GNOME Shell 40.5, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.2.2, Vulkan: 1.2.182, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 1920x1200

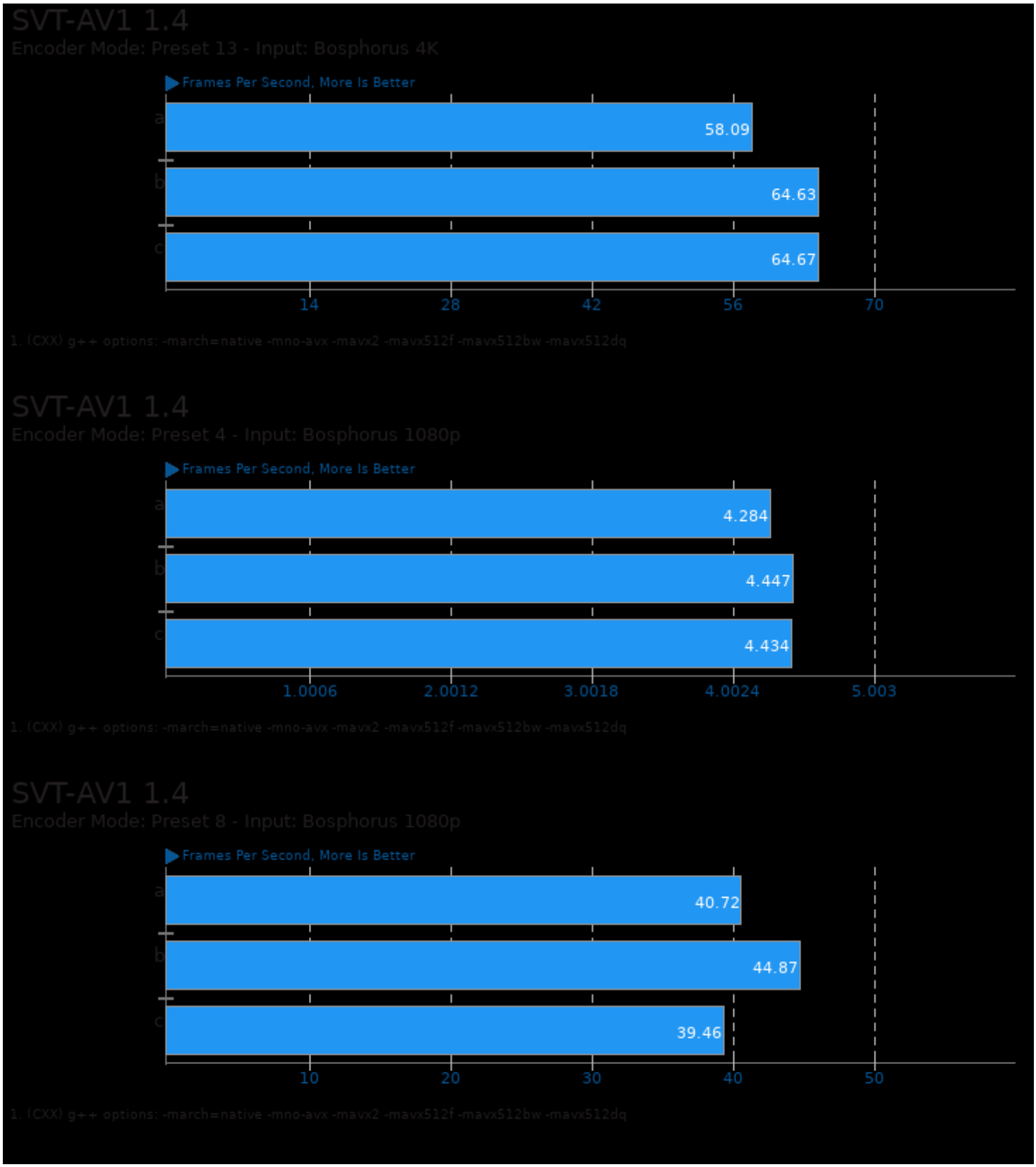
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --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: intel_pstate powersave (EPP: balance_performance) - CPU Microcode: 0xa4 - Thermald 2.4.6
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 and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	a	b	c
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	1.132	**1.194**	**1.115**
Normalized	94.81%	100%	93.38%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	13.702	**14.815**	**13.449**
Normalized	92.49%	100%	90.78%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**54.988**	**57.674**	55.381
Normalized	95.34%	100%	96.02%
SVT-AV1 - Preset 13 - Bosphorus 4K (FPS)	**58.087**	64.633	**64.673**
Normalized	89.82%	99.94%	100%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**4.284**	**4.447**	4.434
Normalized	96.33%	100%	99.71%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	40.719	**44.866**	**39.455**
Normalized	90.76%	100%	87.94%
SVT-AV1 - Preset 12 - Bosphorus 1080p	239.872	**239.792**	**256.361**
Normalized	93.57%	93.54%	100%
SVT-AV1 - Preset 13 - Bosphorus 1080p	268.193	**267.554**	**285.53**
Normalized	93.93%	93.7%	100%

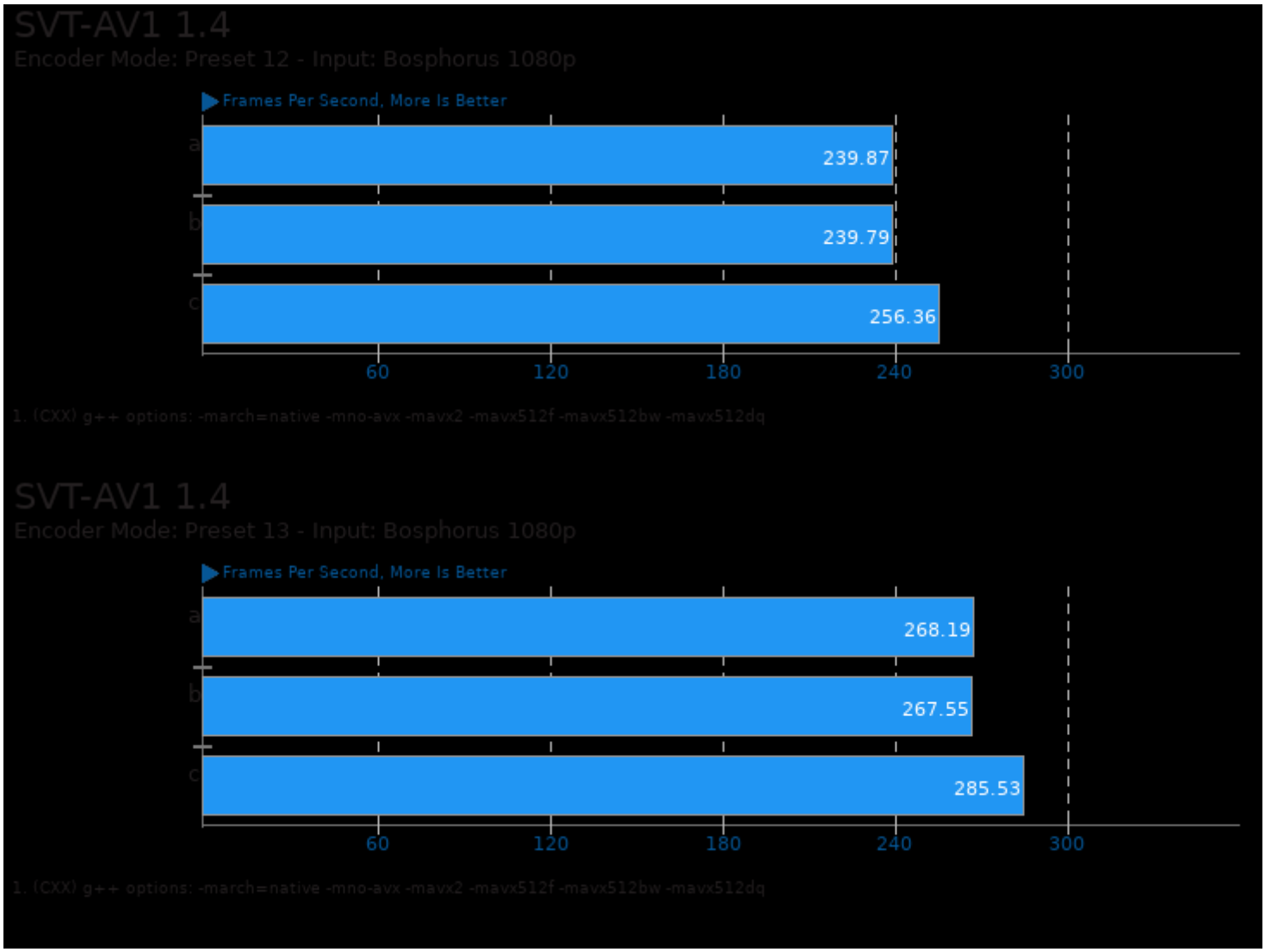
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SVT-AV1 1.4
Encoder Mode: Preset 4 - Input: Bosphorus 4K
Frames Per Second, More Is Better
a
b
c
1.132
1.194
1.115
0.2687
0.5374
0.8061
1.0748
1.3435
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.4
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
a
b
c
13.70
14.82
13.45
4
8
12
16
20
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.4
Encoder Mode: Preset 12 - Input: Bosphorus 4K
Frames Per Second, More Is Better
a
b
c
54.99
57.67
55.38
13
26
39
52
65
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

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SVT-AV1 1.4
Encoder Mode: Preset 13 - Input: Bosphorus 4K
Frames Per Second, More Is Better
a
58.09
b
64.63
c
64.67
14
28
42
56
70
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.4
Encoder Mode: Preset 4 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
a
4.284
b
4.447
c
4.434
1.0006
2.0012
3.0018
4.0024
5.003
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.4
Encoder Mode: Preset 8 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
a
40.72
b
44.87
c
39.46
10
20
30
40
50
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 Friday, 29 March 2024 11:11.