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Ryzen 7 5800X3D SVT-AV1 1.0

AMD Ryzen 7 5800X3D 8-Core testing with a ASRock X570 Pro4 (P4.30 BIOS) and AMD Radeon RX 6800 XT 16GB on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

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

Based on the geometric mean of all complete results, the fastest (4) was 1.001x the speed of the slowest (2). 1 was 0.999x the speed of 4, 3 was 1x the speed of 1, 2 was 1x the speed of 3.

Test Systems:

1

2

3

4

Processor: AMD Ryzen 7 5800X3D 8-Core @ 3.40GHz (8 Cores / 16 Threads), Motherboard: ASRock X570 Pro4 (P4.30 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 1000GB Sabrent Rocket 4.0 1TB + 2000GB, Graphics: AMD Radeon RX 6800 XT 16GB (2575/1000MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: ASUS MG28U, Network: Intel I211

OS: Ubuntu 22.04, Kernel: 5.17.4-051704-generic (x86_64), Desktop: GNOME Shell 42.0, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.2.0-devel (git-092ac67 2022-04-21 jammy-oibaf-ppa) (LLVM 14.0.0 DRM 3.44), Vulkan: 1.3.211, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 3840x2160

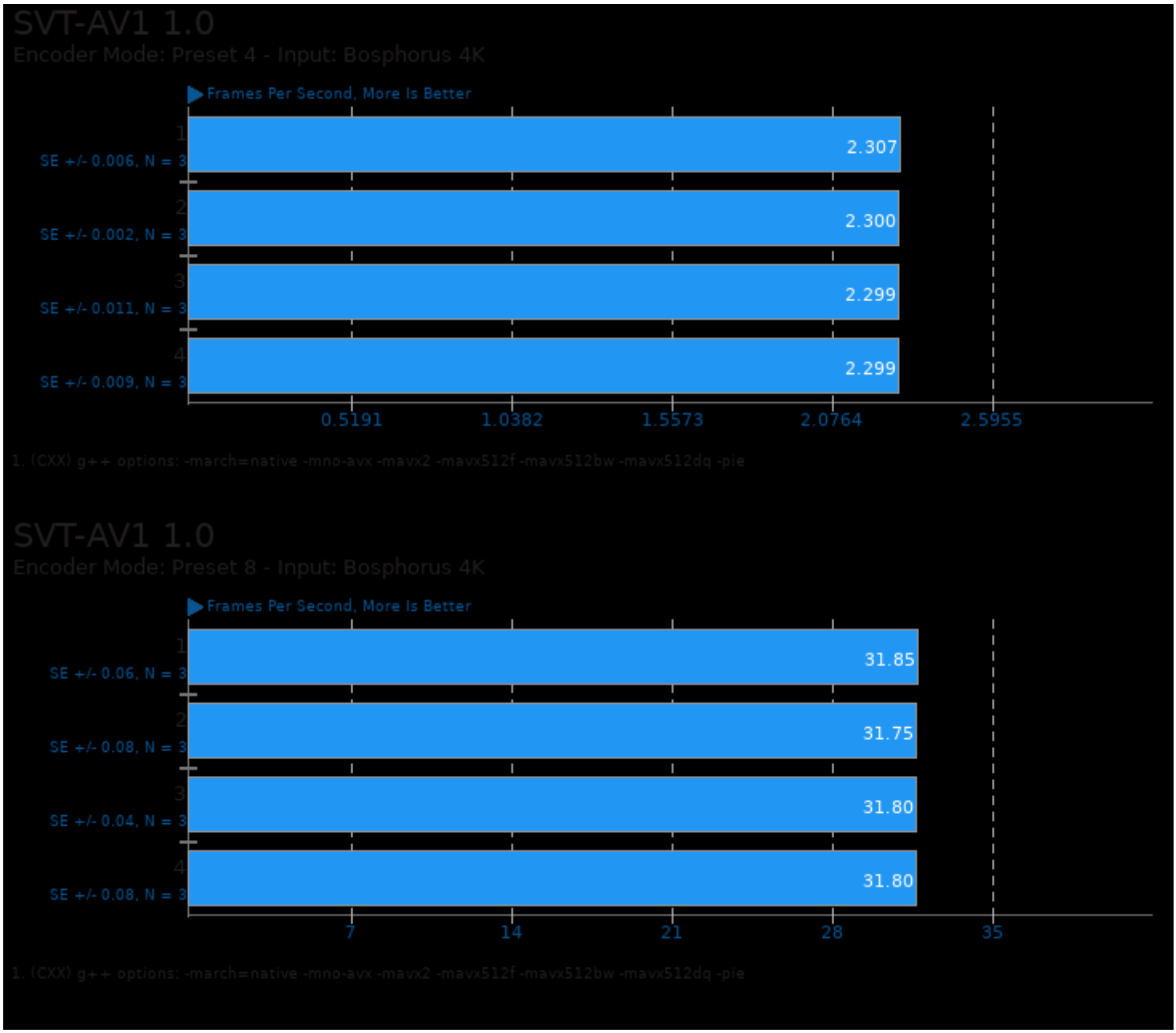
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --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: 0xa201205
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 Retpolines IBPB: conditional IBRS_FW STIBP: always-on RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	1	2	3	4
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	**2.307**	2.300	**2.299**	**2.299**
Normalized	100%	99.7%	99.65%	99.65%
Standard Deviation	0.4%	0.2%	0.8%	0.7%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	**31.852**	**31.753**	31.803	31.802
Normalized	100%	99.69%	99.85%	99.84%
Standard Deviation	0.3%	0.4%	0.2%	0.4%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	**81.674**	81.789	81.906	**81.976**
Normalized	99.63%	99.77%	99.91%	100%
Standard Deviation	0.2%	0.2%	0.1%	0.1%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**112.884**	113.759	113.699	**114.030**
Normalized	99%	99.76%	99.71%	100%
Standard Deviation	1.1%	0.9%	0.4%	0.5%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**6.724**	6.714	6.699	**6.698**
Normalized	100%	99.85%	99.63%	99.61%
Standard Deviation	0.8%	0.2%	0.4%	0.1%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	**111.038**	**111.594**	111.438	111.277
Normalized	99.5%	100%	99.86%	99.72%
Standard Deviation	0.2%	0.9%	0.2%	0.1%

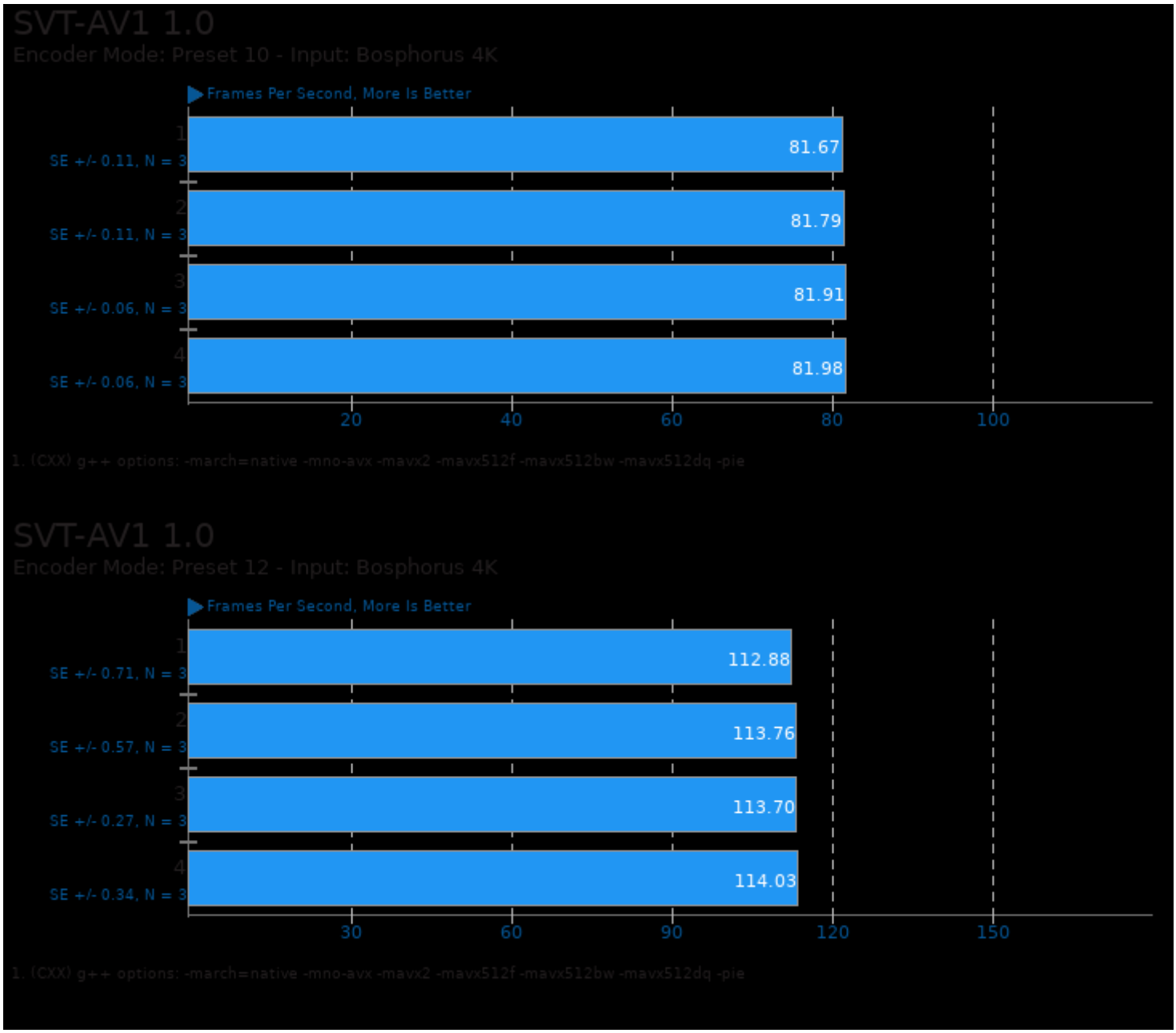
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SVT-AV1 - Preset 10 - Bosphorus 1080p (FPS)	**232.017**	230.228	230.659	**229.951**
Normalized	100%	99.23%	99.41%	99.11%
Standard Deviation	0.4%	0.7%	0.3%	0.8%
SVT-AV1 - Preset 12 - Bosphorus 1080p (FPS)	468.781	**467.763**	467.769	**472.602**
Normalized	99.19%	98.98%	98.98%	100%
Standard Deviation	1.4%	0.6%	0.4%	0.5%

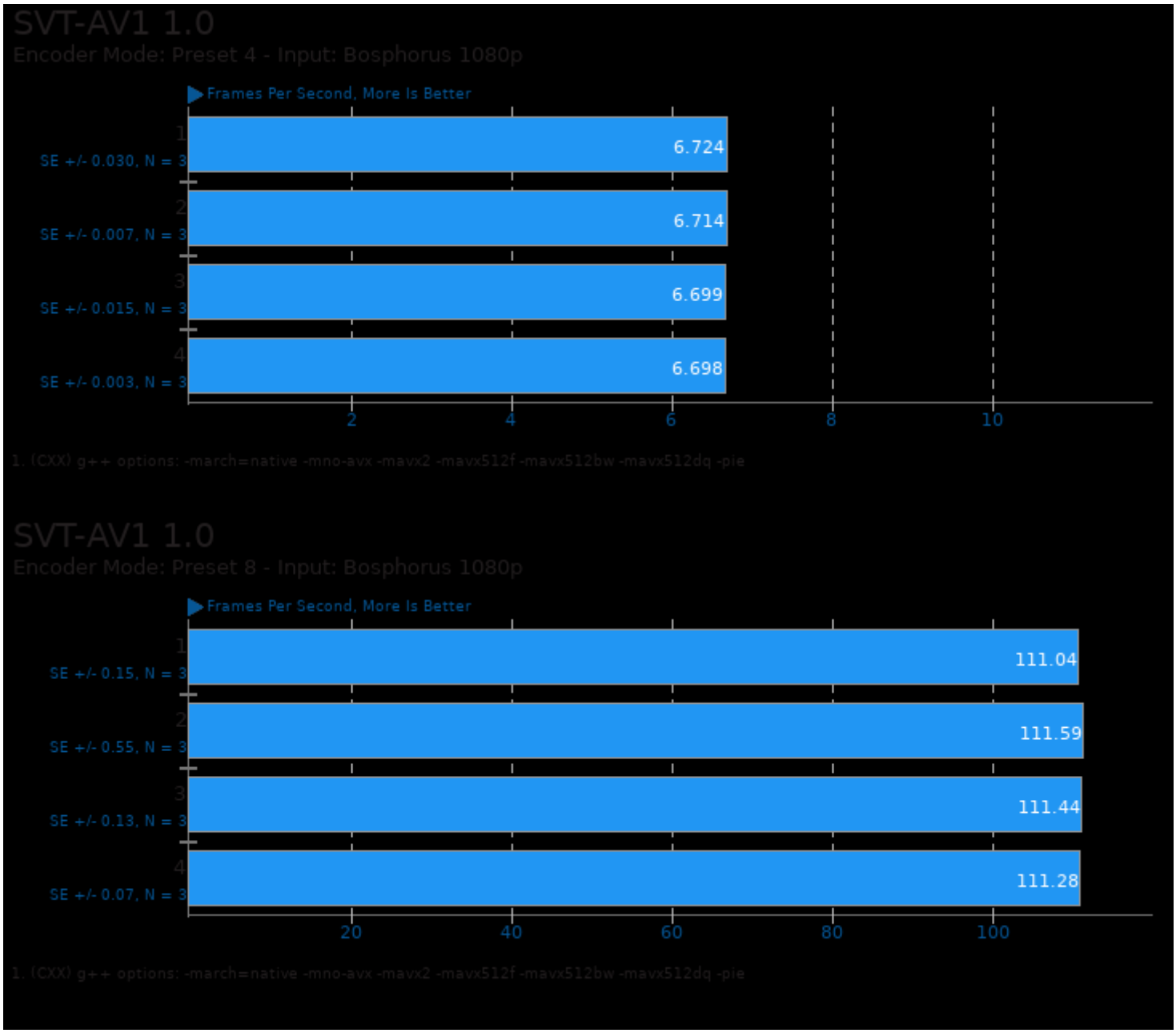
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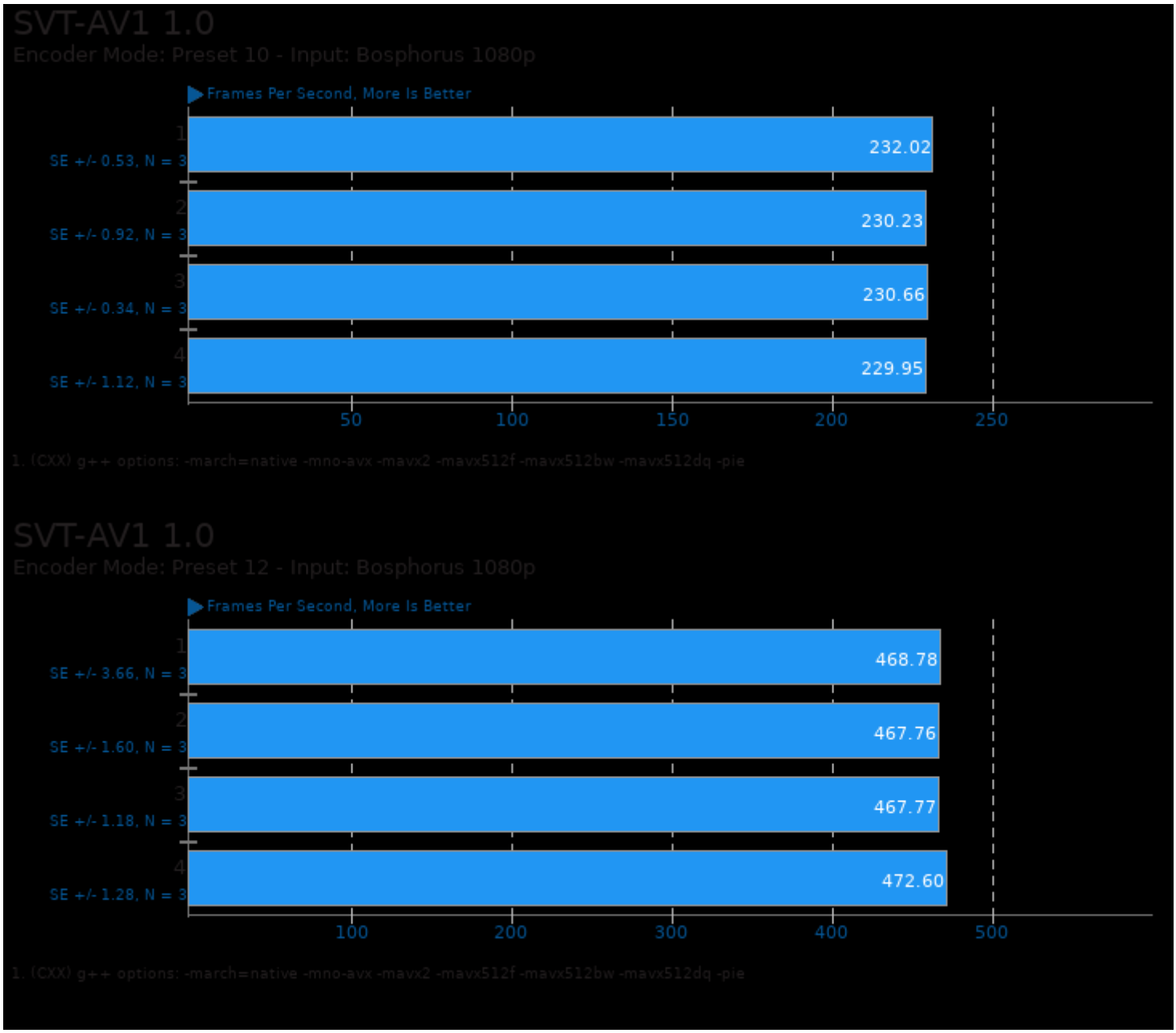
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