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3970X av1 sip

AMD Ryzen Threadripper 3970X 32-Core testing with a ASUS ROG ZENITH II EXTREME (1201 BIOS) and AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 40% of the tests.

Based on the geometric mean of all complete results, the fastest (1) was 1.009x the speed of the slowest (3). 2 was 0.992x the speed of 1 and 3 was 0.999x the speed of 2.

The results with the greatest spread from best to worst included:

AOM AV1 (Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K) at 1.126x
AOM AV1 (Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p) at 1.065x
AOM AV1 (Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p) at 1.047x
AOM AV1 (Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p) at 1.045x
AOM AV1 (Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K) at 1.042x
AOM AV1 (Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p) at 1.03x
libgav1 (Video Input: Summer Nature 1080p) at 1.027x
AOM AV1 (Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p) at 1.022x
AOM AV1 (Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K) at 1.02x

3970X av1 sip

AOM AV1 (Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K) at 1.017x.

Test Systems:

1

2

3

Processor: AMD Ryzen Threadripper 3970X 32-Core @ 4.55GHz (32 Cores / 64 Threads), Motherboard: ASUS ROG ZENITH II EXTREME (1201 BIOS), Chipset: AMD Starship/Matisse, Memory: 64GB, Disk: Samsung SSD 980 PRO 500GB, Graphics: AMD Radeon RX 5600 OEM/5600 XT / 5700/5700 8GB (1750/875MHz), Audio: AMD Navi 10 HDMI Audio, Monitor: ASUS VP28U, Network: Aquantia AQC107 NBase-T/IEEE + Intel I211 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.10, Kernel: 5.11.0-rc6-phx (x86_64) 20210203, Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.1 (LLVM 11.0.0), Vulkan: 1.2.131, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 3840x2160

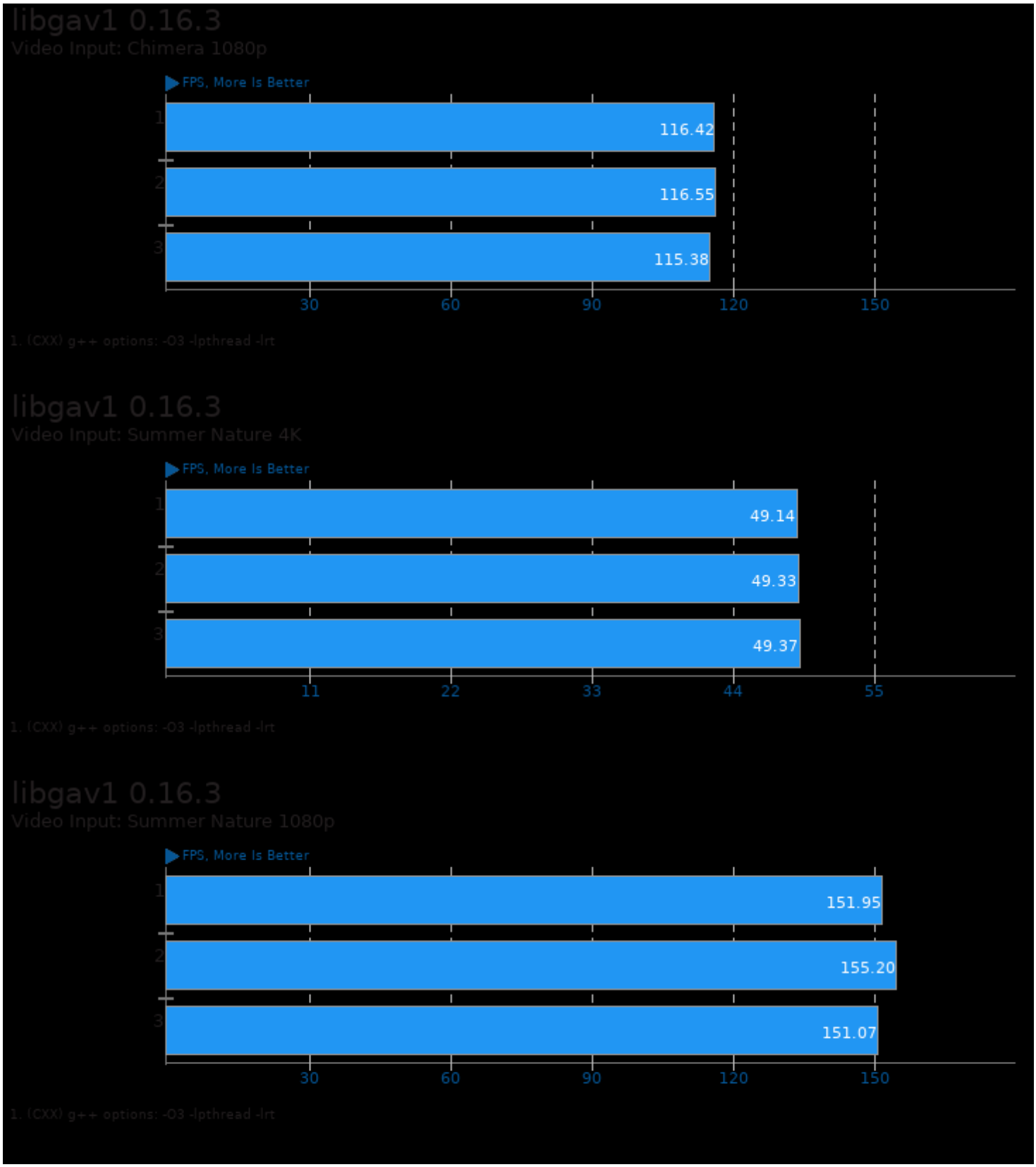
Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --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-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: 0x8301039
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: 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 Full AMD retpoline IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	1	2	3
libgav1 - Chimera 1080p (FPS)	116.42	**116.55**	**115.38**
Normalized	99.89%	100%	99%
libgav1 - Summer Nature 4K (FPS)	**49.14**	49.33	**49.37**
Normalized	99.53%	99.92%	100%
libgav1 - S.N.1 (FPS)	151.95	**155.2**	**151.07**
Normalized	97.91%	100%	97.34%
libgav1 - C.1.1.b (FPS)	**42.49**	**42.07**	42.08
Normalized	100%	99.01%	99.04%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)	0.22	0.22	0.22
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	4.54	**4.47**	**4.56**
Normalized	99.56%	98.03%	100%

3970X av1 sip

AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	**13.11**	12.71	**12.58**
Normalized	100%	96.95%	95.96%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	8.62	**8.6**	**8.75**
Normalized	98.51%	98.29%	100%
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	**40.62**	39.62	**36.06**
Normalized	100%	97.54%	88.77%
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	52.73	**52.58**	**52.99**
Normalized	99.51%	99.23%	100%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p (FPS)	0.55	0.55	0.55
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS)	**6.61**	**6.92**	6.63
Normalized	95.52%	100%	95.81%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)	**25.07**	**23.98**	**25.07**
Normalized	100%	95.65%	100%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS)	19.43	**19.32**	**19.74**
Normalized	98.43%	97.87%	100%
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)	**102.59**	**96.29**	100.56
Normalized	100%	93.86%	98.02%
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)	**119.53**	**116**	116.62
Normalized	100%	97.05%	97.57%
PJSIP - INVITE (Responses/sec)	**4374**	4375	**4391**
Normalized	99.61%	99.64%	100%
PJSIP - OPTIONS, Stateful (Responses/sec)	7150	**7138**	**7179**
Normalized	99.6%	99.43%	100%
PJSIP - OPTIONS, Stateless (Responses/sec)	45341	**45399**	**45143**
Normalized	99.87%	100%	99.44%
Helsing - 14 digit (sec)	154.826	**154.693**	**154.916**
Normalized	99.91%	100%	99.86%

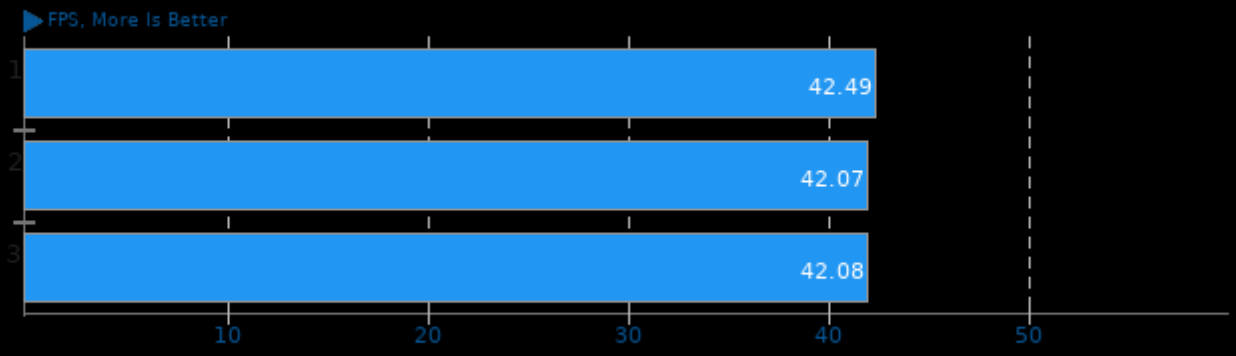
3970X av1 sip



3970X av1 sip

libgav1 0.16.3

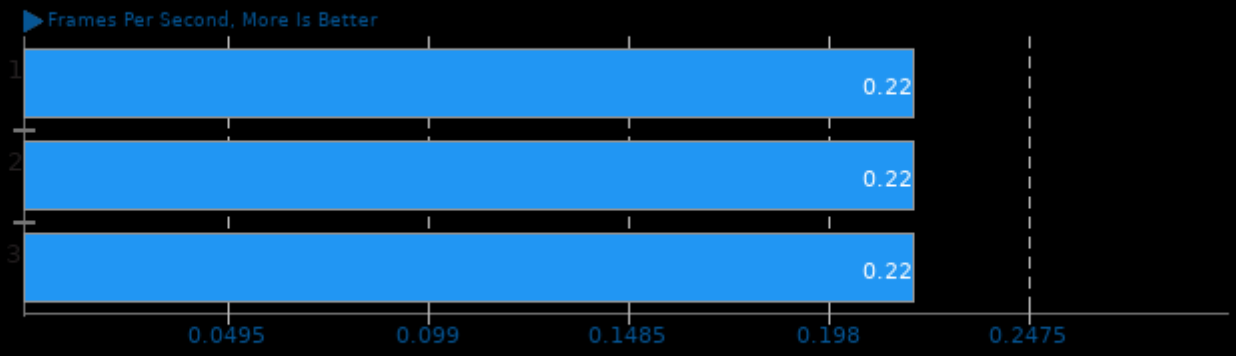
Video Input: Chimera 1080p 10-bit



1. (CXX) g++ options: -O3 -lpthread -lrt

AOM AV1 3.1

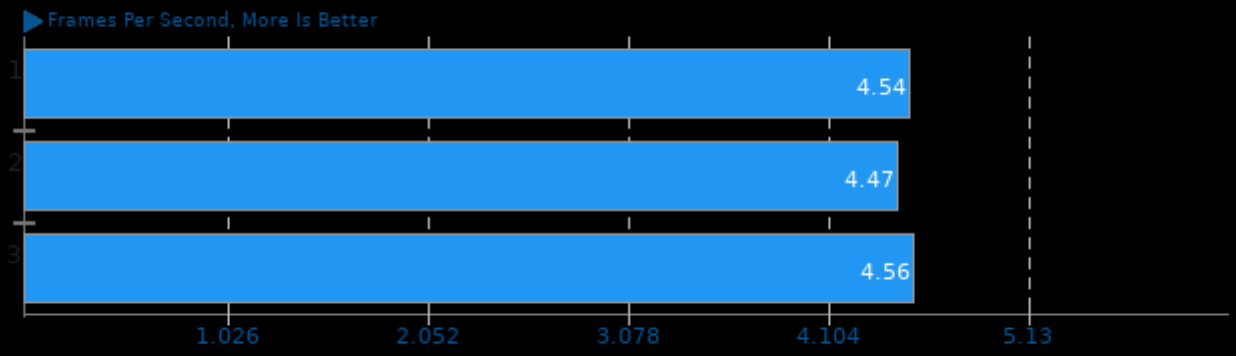
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

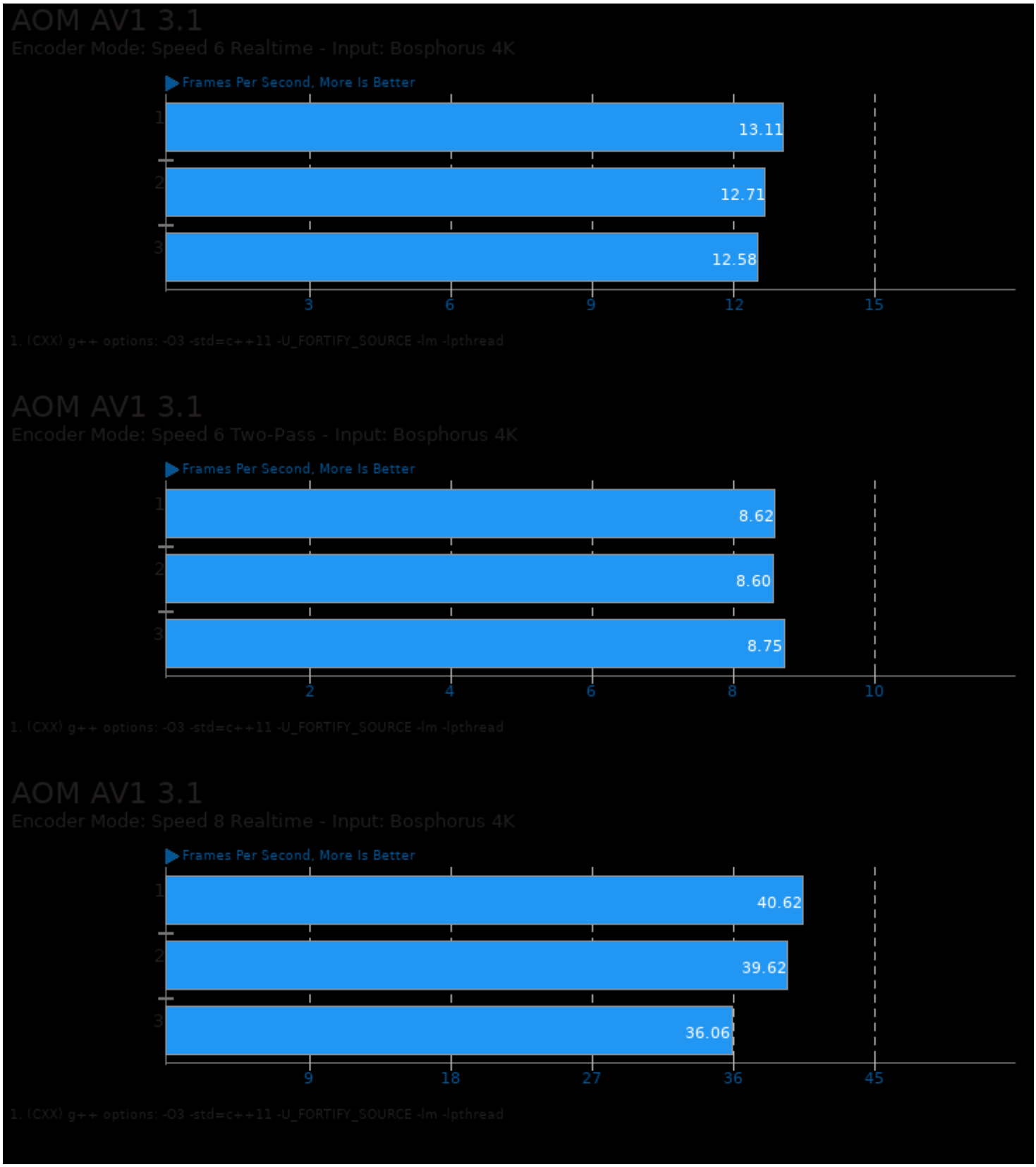
AOM AV1 3.1

Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K

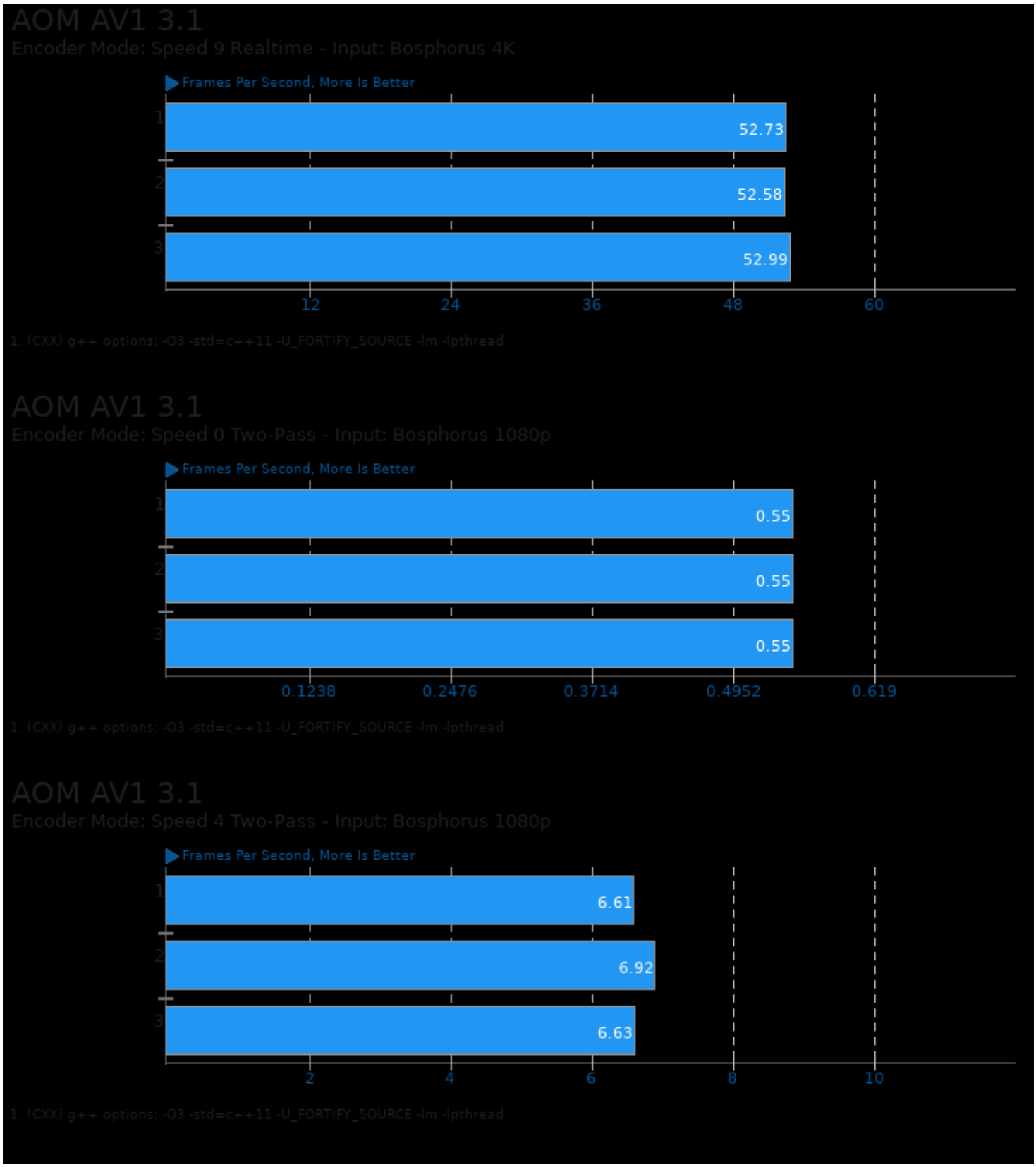


1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

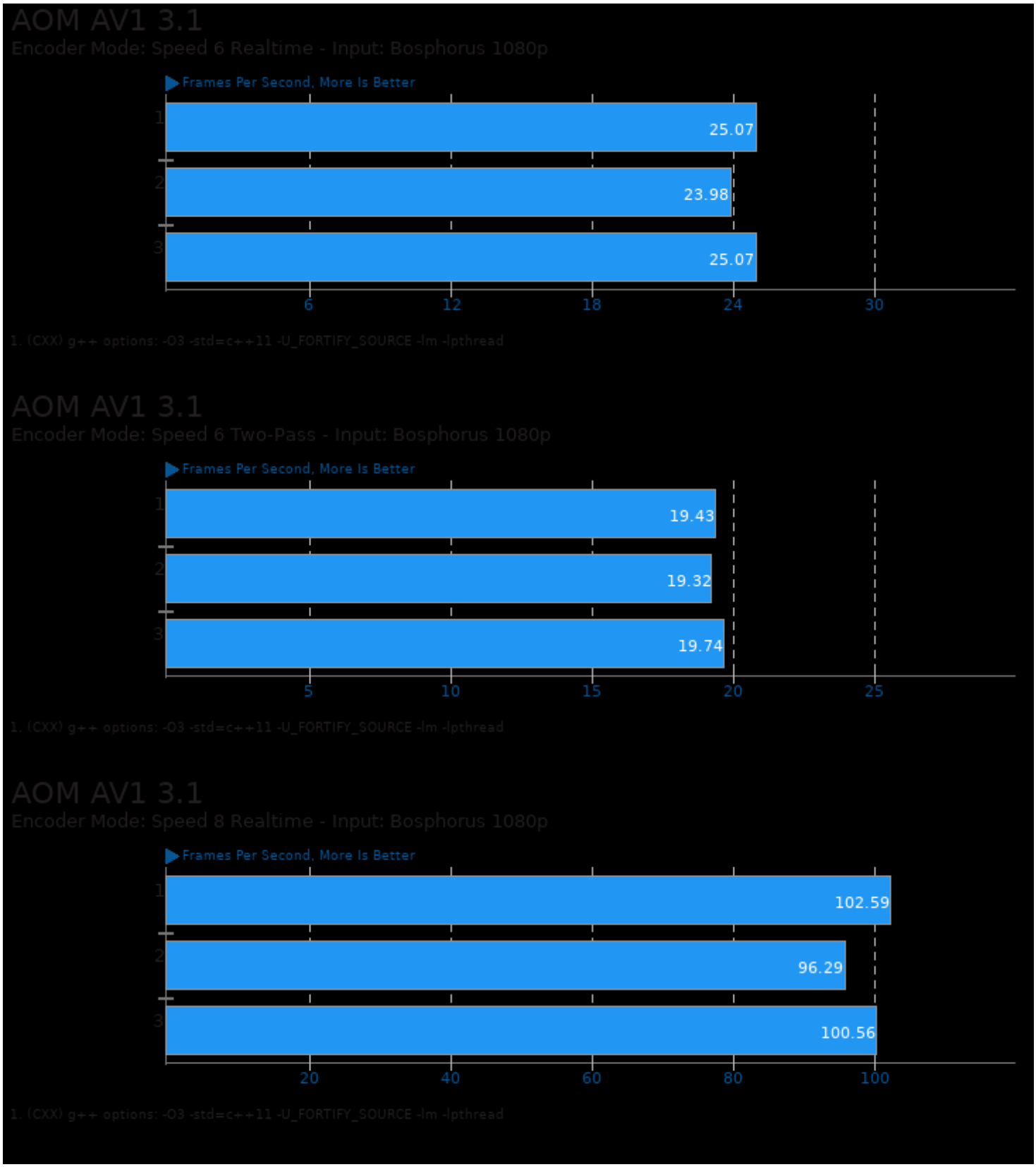
3970X av1 sip



3970X av1 sip



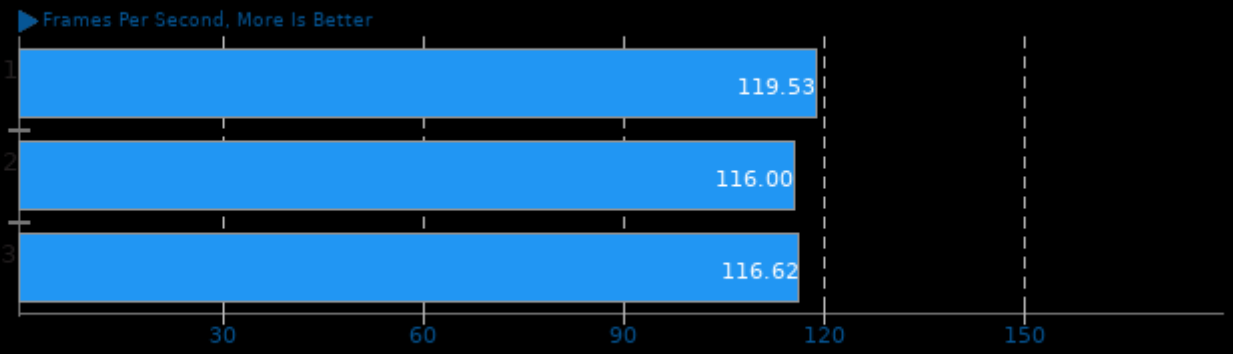
3970X av1 sip



3970X av1 sip

AOM AV1 3.1

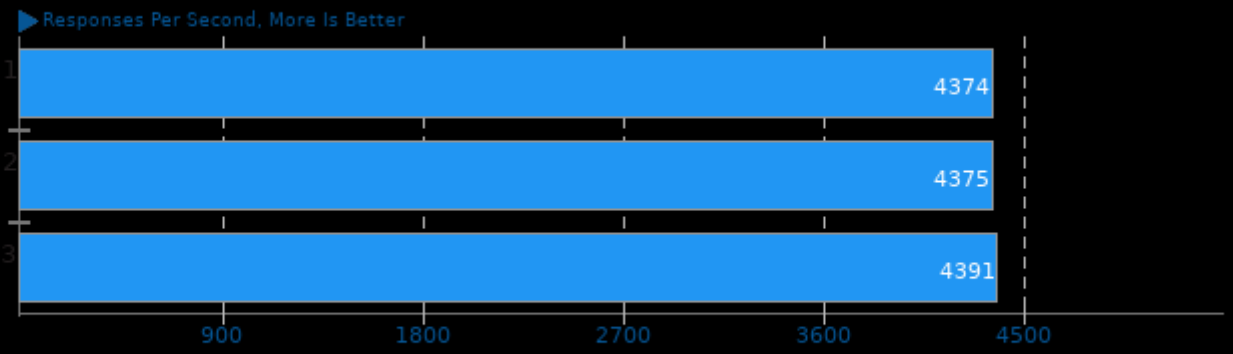
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

PJSIP 2.11

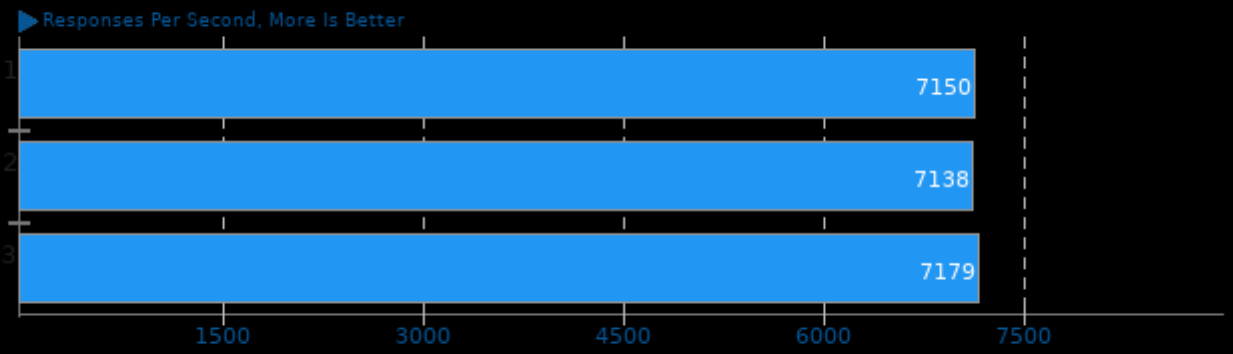
Method: INVITE



1. (CC) gcc options: -lSDL2 -lavformat -lavcodec -lswscale -lavutil -lstdc++ -lopus -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

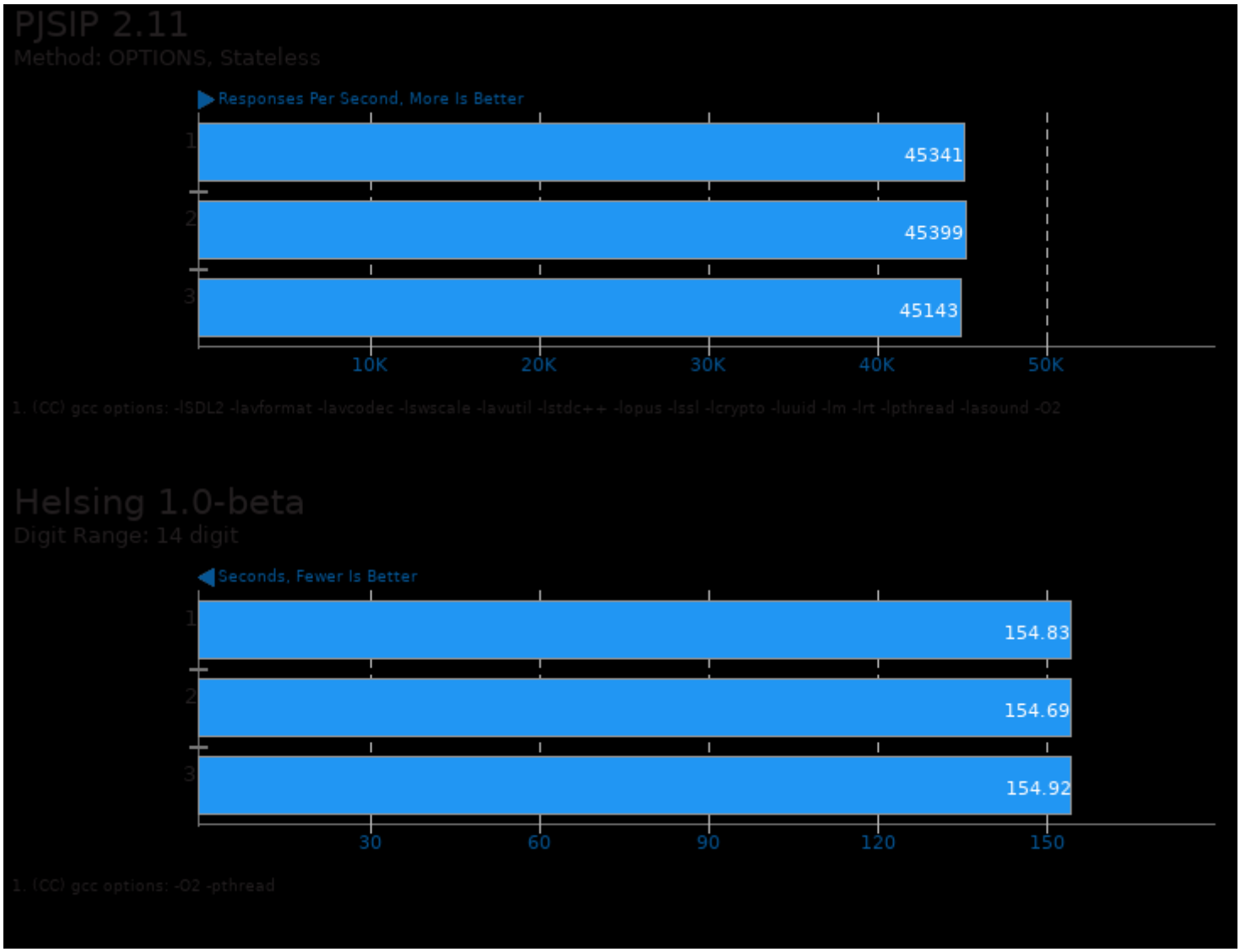
PJSIP 2.11

Method: OPTIONS, Stateful



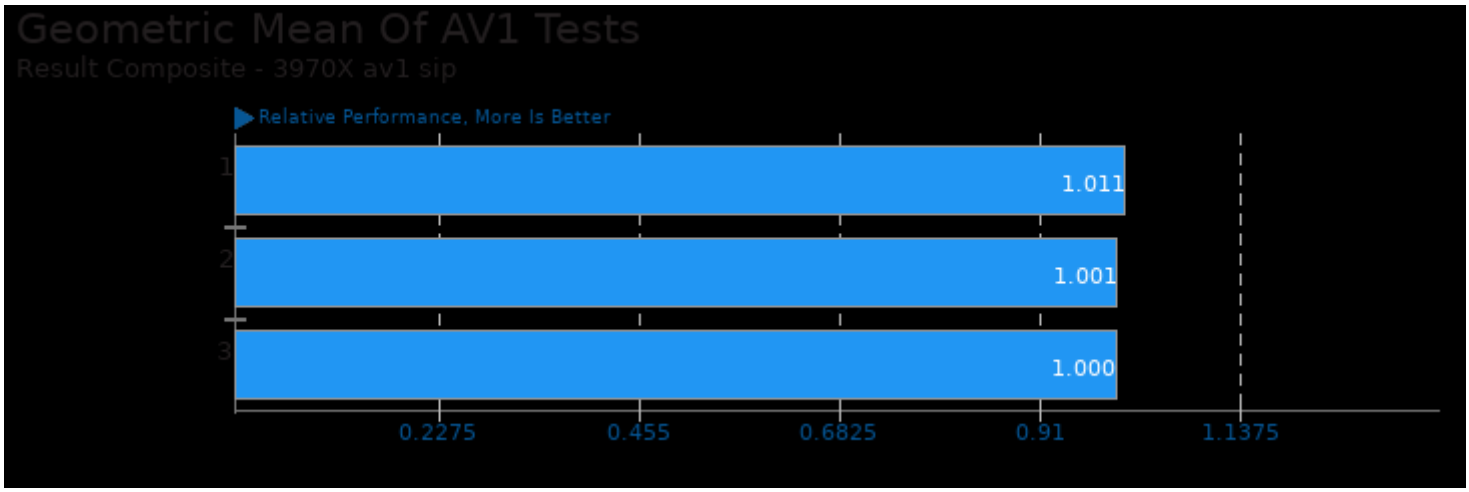
1. (CC) gcc options: -lSDL2 -lavformat -lavcodec -lswscale -lavutil -lstdc++ -lopus -lssl -lcrypto -luuid -lm -lrt -lpthread -lasound -O2

3970X av1 sip

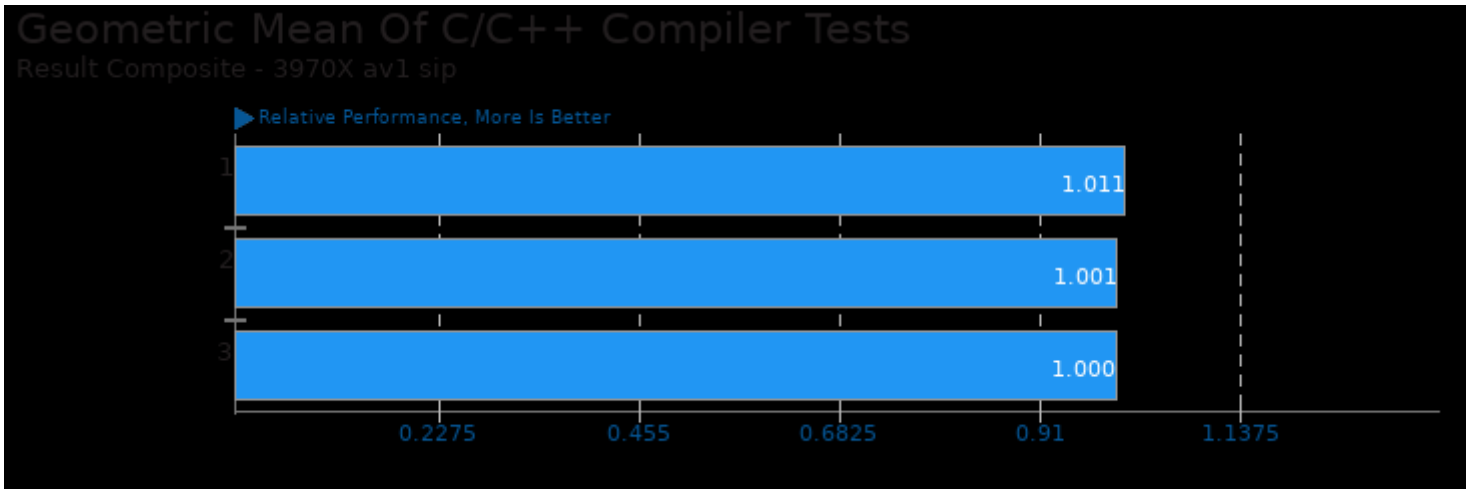


3970X av1 sip

These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/aom-av1 and pts/libgav1

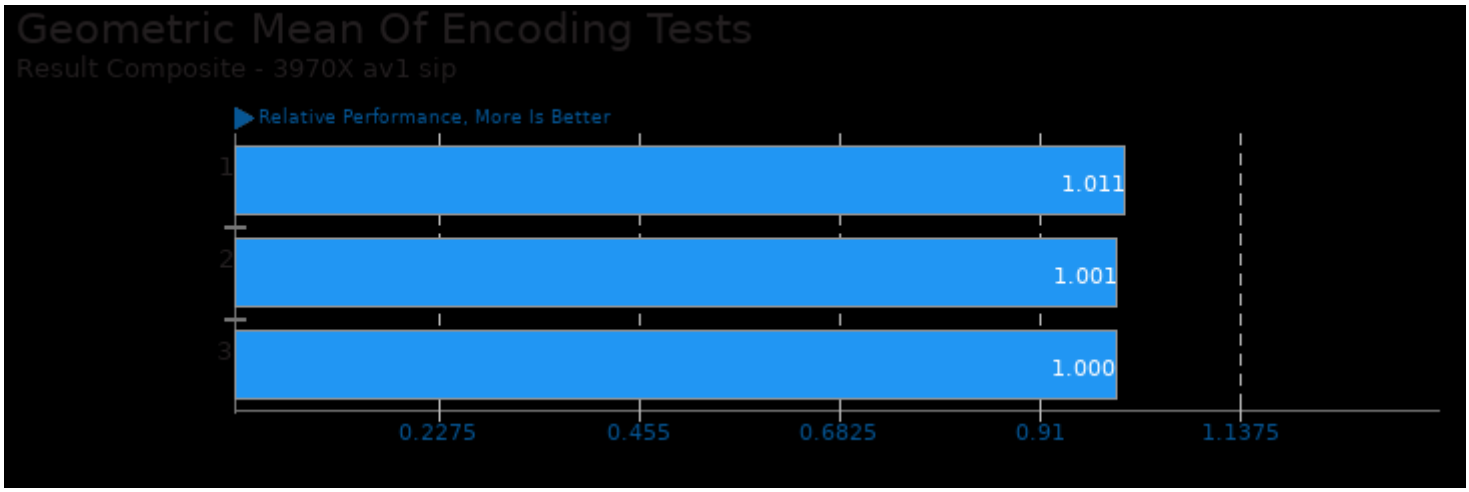


Geometric mean based upon tests: pts/libgav1 and pts/aom-av1



Geometric mean based upon tests: pts/aom-av1 and pts/libgav1

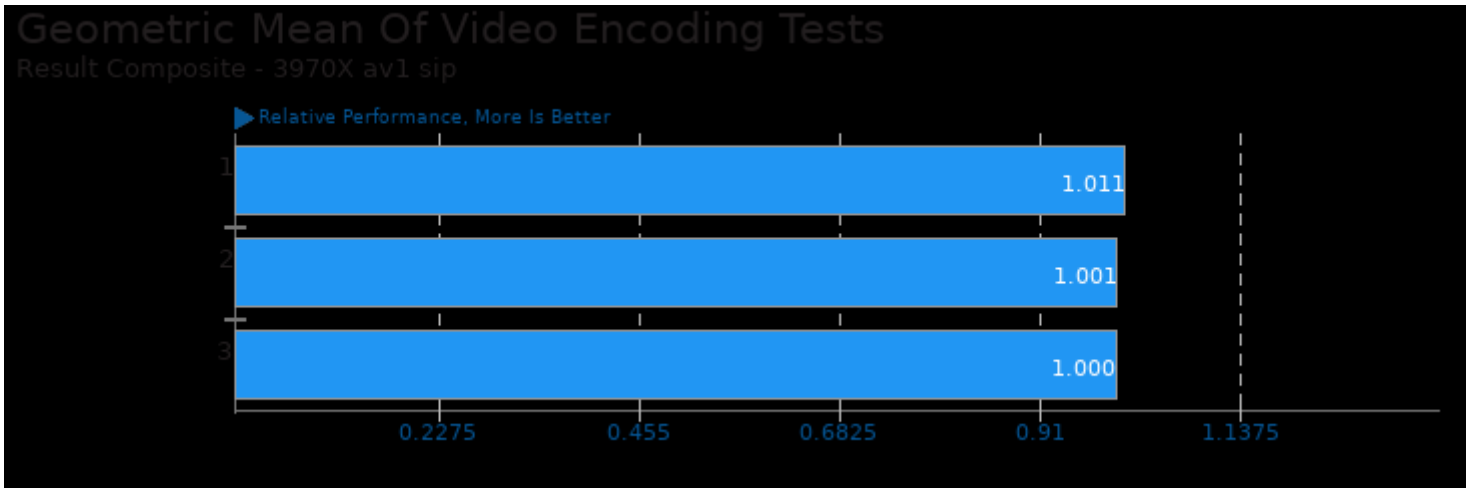
3970X av1 sip



Geometric mean based upon tests: pts/aom-av1 and pts/libgav1



Geometric mean based upon tests: pts/aom-av1 and pts/libgav1



Geometric mean based upon tests: pts/aom-av1 and pts/libgav1

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 00:43.