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## test1

AMD Ryzen 7 5700X 8-Core testing with a MSI PRO B550M-VC WIFI (MS-7C95) v3.0 (H.30 BIOS) and AMD DIMGREY\_CAVEFISH 8GB on Ubuntu 22.04 via the Phoronix Test Suite.

## Test Systems:

### AMD Ryzen 7 5700X 8-Core

Processor: AMD Ryzen 7 5700X 8-Core @ 3.40GHz (8 Cores / 16 Threads), Motherboard: MSI PRO B550M-VC WIFI (MS-7C95) v3.0 (H.30 BIOS), Chipset: AMD Starship/Matisse, Memory: 2 x 16 GB DDR4-2667MT/s F4-3600C18-16GVK, Disk: Western Digital WD\_BLACK SN850X 1000GB, Graphics: AMD DIMGREY\_CAVEFISH 8GB (2765/1094MHz), Audio: AMD Navi 21 HDMI Audio, Monitor: G24F 2, Network: Realtek RTL8111/8168/8411 + MEDIATEK Device 0608

OS: Ubuntu 22.04, Kernel: 5.15.0-52-generic (x86\_64), Desktop: KDE Plasma 5.24.6, Display Server: X Server 1.21.1.3, OpenGL: 4.6 Mesa 22.0.5 (LLVM 13.0.1 DRM 3.42), Vulkan: 1.3.204, Compiler: GCC 11.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: amdgpu.pffeaturemask=0xffffffff - 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-xKiWfi/gcc-11-11.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-xKiWfi/gcc-11-11.3.0/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 --withabi=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 ondemand (Boost: Enabled) - CPU Microcode: 0xa20120a  
 Java Notes: OpenJDK Runtime Environment (build 11.0.16+8-post-Ubuntu-0ubuntu122.04)  
 Python Notes: Python 3.10.6  
 Security Notes: itlb\_multihit: Not affected + I1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio\_stale\_data: Not affected + retbleed: 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 Retpolines IBPB: conditional IBRS\_FW STIBP: always-on RSB filling PBRSB-elIBRS: Not affected + srbds: Not affected + tsx\_async\_abort: Not affected

## AMD Ryzen 7 5700X 8-Core

<b>C-Blosc - blosclz shuffle (MB/s)</b>	20049
Standard Deviation	0.6%
<b>C-Blosc - blosclz bitshuffle (MB/s)</b>	12174
Standard Deviation	0.9%
<b>Crypto++ - All Algorithms (MiB/s)</b>	2120
Standard Deviation	0.1%
<b>Crypto++ - Keyed Algorithms (MiB/s)</b>	804.421420
Standard Deviation	0%
<b>Crypto++ - Unkeyed Algorithms (MiB/s)</b>	528.172660
Standard Deviation	0%
<b>Crypto++ - I.E.C.P.K.A (MiB/s)</b>	6381
Standard Deviation	0.4%
<b>LeelaChessZero - BLAS (Nodes/s)</b>	800
Standard Deviation	1.1%
<b>Izbench - XZ 0 - Compression (MB/s)</b>	51
Standard Deviation	1.1%
<b>Izbench - XZ 0 - Decompression (MB/s)</b>	165
Standard Deviation	0.3%
<b>Izbench - Zstd 1 - Compression (MB/s)</b>	651
Standard Deviation	2.2%
<b>Izbench - Zstd 1 - Decompression (MB/s)</b>	2231
Standard Deviation	0.1%
<b>Izbench - Zstd 8 - Compression (MB/s)</b>	121
Standard Deviation	1.7%
<b>Izbench - Zstd 8 - Decompression (MB/s)</b>	2466
Standard Deviation	1%
<b>Izbench - Crush 0 - Compression (MB/s)</b>	166
Standard Deviation	2.3%
<b>Izbench - Crush 0 - Decompression (MB/s)</b>	674
Standard Deviation	0.2%
<b>Izbench - Brotli 0 - Compression (MB/s)</b>	614
Standard Deviation	0.4%
<b>Izbench - Brotli 0 - Decompression (MB/s)</b>	760
Standard Deviation	0.2%
<b>Izbench - Brotli 2 - Compression (MB/s)</b>	253
Standard Deviation	0.2%
<b>Izbench - Brotli 2 - Decompression (MB/s)</b>	903
Standard Deviation	0.1%

**Izbench - Libdeflate 1 - Compression (MB/s)** 310  
Standard Deviation 0.5%

**Izbench - Libdeflate 1 - Decompression (MB/s)** 1535  
Standard Deviation 0.1%

**SMHasher - wyhash (MiB/sec)** 27036  
Standard Deviation 0.3%

**SMHasher - wyhash (cycles/hash)** 15.968  
Standard Deviation 0%

**SMHasher - SHA3-256 (MiB/sec)** 193.52  
Standard Deviation 2.2%

**SMHasher - SHA3-256 (cycles/hash)** 2008  
Standard Deviation 2.6%

**SMHasher - Spooky32 (MiB/sec)** 19674  
Standard Deviation 0.1%

**SMHasher - Spooky32 (cycles/hash)** 30.970  
Standard Deviation 0.6%

**SMHasher - fasthash32 (MiB/sec)** 7819  
Standard Deviation 0%

**SMHasher - fasthash32 (cycles/hash)** 25.806  
Standard Deviation 2.3%

**SMHasher - FarmHash128 (MiB/sec)** 17937  
Standard Deviation 0.2%

**SMHasher - FarmHash128 (cycles/hash)** 53.580  
Standard Deviation 0%

**SMHasher - t1ha2\_atonce (MiB/sec)** 20474  
Standard Deviation 0.4%

**SMHasher - t1ha2\_atonce (cycles/hash)** 23.640  
Standard Deviation 0.1%

**SMHasher - F.x.A (MiB/sec)** 35031  
Standard Deviation 0.2%

**SMHasher - F.x.A (cycles/hash)** 29.387  
Standard Deviation 0%

**SMHasher - t.x (MiB/sec)** 79047  
Standard Deviation 1.2%

**SMHasher - t.x (cycles/hash)** 22.642  
Standard Deviation 0%

**SMHasher - M.x.A.N (MiB/sec)** 46790  
Standard Deviation 0.5%

**SMHasher - M.x.A.N (cycles/hash)** 49.589  
Standard Deviation 0%

**BLAKE2 (Cycles/Byte)** 4.57  
Standard Deviation 0%

**libgav1 - Chimera 1080p (FPS)** 254.20  
Standard Deviation 0.1%

**libgav1 - Summer Nature 4K (FPS)** 88.69  
Standard Deviation 0.7%

**libgav1 - S.N.1 (FPS)** 350.44  
Standard Deviation 0.2%

**libgav1 - C.1.1.b (FPS)** 80.19  
Standard Deviation 0.4%

**Xmrig - Monero - 1M (H/s)** 7789  
Standard Deviation 0.6%

**Xmrig - Wownero - 1M (H/s)** 8297

	Standard Deviation	0.1%
<b>Chia Blockchain VDF - Square Plain C++ (IPS)</b>	206833	
	Standard Deviation	0.9%
<b>Chia Blockchain VDF - S.A.O (IPS)</b>	230133	
	Standard Deviation	0.3%
<b>Bork File Encrypter - F.E.T (sec)</b>	6.629	
	Standard Deviation	0.6%
<b>LZ4 Compression - 1 - Compression Speed (MB/s)</b>	9637	
	Standard Deviation	0.7%
<b>LZ4 Compression - 1 - D.S (MB/s)</b>	10497	
	Standard Deviation	1%
<b>LZ4 Compression - 3 - Compression Speed (MB/s)</b>	68.27	
	Standard Deviation	1.1%
<b>LZ4 Compression - 3 - D.S (MB/s)</b>	10372	
	Standard Deviation	0%
<b>LZ4 Compression - 9 - Compression Speed (MB/s)</b>	67.26	
	Standard Deviation	2.4%
<b>LZ4 Compression - 9 - D.S (MB/s)</b>	10376	
	Standard Deviation	0.2%
<b>Zstd Compression - 3 - Compression Speed (MB/s)</b>	2962	
	Standard Deviation	1.9%
<b>Zstd Compression - 3 - D.S (MB/s)</b>	4181	
	Standard Deviation	0.3%
<b>Zstd Compression - 8 - Compression Speed (MB/s)</b>	645.4	
	Standard Deviation	2.5%
<b>Zstd Compression - 8 - D.S (MB/s)</b>	4368	
	Standard Deviation	1.2%
<b>Zstd Compression - 19 - Compression Speed (MB/s)</b>	33.6	
	Standard Deviation	1%
<b>Zstd Compression - 19 - D.S (MB/s)</b>	3850	
	Standard Deviation	1.1%
<b>Zstd Compression - 3, Long Mode - Compression Speed (MB/s)</b>	1298	
	Standard Deviation	1.9%
<b>Zstd Compression - 3, Long Mode - D.S (MB/s)</b>	4419	
	Standard Deviation	0.8%
<b>Zstd Compression - 8, Long Mode - Compression Speed (MB/s)</b>	873.0	
	Standard Deviation	0.9%
<b>Zstd Compression - 8, Long Mode - D.S (MB/s)</b>	4587	
	Standard Deviation	1.2%
<b>Zstd Compression - 19, Long Mode - Compression Speed (MB/s)</b>	28.0	
	Standard Deviation	0.4%
<b>Zstd Compression - 19, Long Mode - D.S (MB/s)</b>	3866	
	Standard Deviation	1.8%
<b>Nettle - aes256 (Mbyte/s)</b>	7130	
	Standard Deviation	0%
<b>Nettle - chacha (Mbyte/s)</b>	1177	
	Standard Deviation	0%
<b>Nettle - sha512 (Mbyte/s)</b>	726.90	
	Standard Deviation	0%
<b>Nettle - poly1305-aes (Mbyte/s)</b>	3353	
	Standard Deviation	0.1%
<b>Botan - KASUMI (MiB/s)</b>	111.325	
	Standard Deviation	0.1%

<b>Botan - KASUMI - Decrypt (MiB/s)</b>	106.894
Standard Deviation	0%
<b>Botan - AES-256 (MiB/s)</b>	7211
Standard Deviation	0%
<b>Botan - AES-256 - Decrypt (MiB/s)</b>	7142
Standard Deviation	0.1%
<b>Botan - Twofish (MiB/s)</b>	423.002
Standard Deviation	1.7%
<b>Botan - Twofish - Decrypt (MiB/s)</b>	411.414
Standard Deviation	0.5%
<b>Botan - Blowfish (MiB/s)</b>	466.081
Standard Deviation	0.4%
<b>Botan - Blowfish - Decrypt (MiB/s)</b>	466.359
Standard Deviation	0.3%
<b>Botan - CAST-256 (MiB/s)</b>	165.446
Standard Deviation	0.1%
<b>Botan - CAST-256 - Decrypt (MiB/s)</b>	165.500
Standard Deviation	0.1%
<b>Botan - ChaCha20Poly1305 (MiB/s)</b>	932.653
Standard Deviation	1%
<b>Botan - ChaCha20Poly1305 - Decrypt (MiB/s)</b>	918.381
Standard Deviation	0.4%
<b>Crafty - Elapsed Time (Nodes/s)</b>	11538105
Standard Deviation	1.2%
<b>TSCP - A.C.P (Nodes/s)</b>	1954553
Standard Deviation	0.6%
<b>dav1d - Chimera 1080p (FPS)</b>	655.41
Standard Deviation	0.2%
<b>dav1d - Summer Nature 4K (FPS)</b>	192.16
Standard Deviation	0.2%
<b>dav1d - S.N.1 (FPS)</b>	904.09
Standard Deviation	1.4%
<b>dav1d - C.1.1.b (FPS)</b>	489.67
Standard Deviation	0.2%
<b>AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)</b>	0.2
Standard Deviation	0%
<b>AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)</b>	6.65
Standard Deviation	0.7%
<b>AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)</b>	18.81
Standard Deviation	1.3%
<b>AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)</b>	11.90
Standard Deviation	1.2%
<b>AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)</b>	21.55
Standard Deviation	1.4%
<b>AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)</b>	25.09
Standard Deviation	0.7%
<b>AOM AV1 - Speed 10 Realtime - Bosphorus 4K (FPS)</b>	26.11
Standard Deviation	0.5%
<b>AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p (FPS)</b>	0.59
Standard Deviation	0%
<b>AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS)</b>	15.86
Standard Deviation	0.1%
<b>AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)</b>	36.15

	Standard Deviation	1.7%
<b>AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS)</b>	35.75	
	Standard Deviation	0.5%
<b>AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)</b>	64.24	
	Standard Deviation	0.3%
<b>AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)</b>	69.29	
	Standard Deviation	0.6%
<b>AOM AV1 - Speed 10 Realtime - Bosphorus 1080p (FPS)</b>	70.23	
	Standard Deviation	1.1%
<b>Kvazaar - Bosphorus 4K - Slow (FPS)</b>	8.28	
	Standard Deviation	0.1%
<b>Kvazaar - Bosphorus 4K - Medium (FPS)</b>	8.41	
	Standard Deviation	0.1%
<b>Kvazaar - Bosphorus 1080p - Slow (FPS)</b>	42.48	
	Standard Deviation	0.3%
<b>Kvazaar - Bosphorus 1080p - Medium (FPS)</b>	43.49	
	Standard Deviation	0.1%
<b>Kvazaar - Bosphorus 4K - Very Fast (FPS)</b>	18.89	
	Standard Deviation	0.3%
<b>Kvazaar - Bosphorus 4K - Ultra Fast (FPS)</b>	32.12	
	Standard Deviation	0.5%
<b>Kvazaar - Bosphorus 1080p - Very Fast (FPS)</b>	79.64	
	Standard Deviation	0.2%
<b>Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)</b>	139.51	
	Standard Deviation	0.4%
<b>rav1e - 1 (FPS)</b>	0.583	
	Standard Deviation	0.3%
<b>rav1e - 5 (FPS)</b>	3.032	
	Standard Deviation	0.7%
<b>rav1e - 6 (FPS)</b>	4.044	
	Standard Deviation	0.7%
<b>rav1e - 10 (FPS)</b>	10.223	
	Standard Deviation	1.7%
<b>SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)</b>	1.685	
	Standard Deviation	0.2%
<b>SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)</b>	34.820	
	Standard Deviation	0.7%
<b>SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)</b>	69.033	
	Standard Deviation	1.3%
<b>SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)</b>	93.592	
	Standard Deviation	0.6%
<b>SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)</b>	5.369	
	Standard Deviation	1.1%
<b>SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)</b>	101.078	
	Standard Deviation	0.4%
<b>SVT-AV1 - Preset 10 - Bosphorus 1080p (FPS)</b>	227.371	
	Standard Deviation	1.7%
<b>SVT-AV1 - Preset 12 - Bosphorus 1080p (FPS)</b>	384.213	
	Standard Deviation	1%
<b>SVT-HEVC - 1 - Bosphorus 4K (FPS)</b>	2.11	
	Standard Deviation	0%
<b>SVT-HEVC - 7 - Bosphorus 4K (FPS)</b>	38.69	
	Standard Deviation	0.7%

<b>SVT-HEVC - 10 - Bosphorus 4K (FPS)</b>	71.17
Standard Deviation	0.5%
<b>SVT-HEVC - 1 - Bosphorus 1080p (FPS)</b>	8.42
Standard Deviation	0.2%
<b>SVT-HEVC - 7 - Bosphorus 1080p (FPS)</b>	126.74
Standard Deviation	0.2%
<b>SVT-HEVC - 10 - Bosphorus 1080p (FPS)</b>	252.46
Standard Deviation	0.5%
<b>SVT-VP9 - VMAF Optimized - Bosphorus 4K (FPS)</b>	42.36
Standard Deviation	1.8%
<b>SVT-VP9 - VMAF Optimized - Bosphorus 1080p (FPS)</b>	156.12
Standard Deviation	1.7%
<b>SVT-VP9 - P.S.O - Bosphorus 4K (FPS)</b>	47.19
Standard Deviation	0.6%
<b>SVT-VP9 - P.S.O - Bosphorus 1080p (FPS)</b>	164.11
Standard Deviation	0.2%
<b>SVT-VP9 - V.Q.O - Bosphorus 4K (FPS)</b>	41.46
Standard Deviation	0.5%
<b>SVT-VP9 - V.Q.O - Bosphorus 1080p (FPS)</b>	135.09
Standard Deviation	0.5%
<b>VP9 libvpx Encoding - Speed 0 - Bosphorus 4K (FPS)</b>	7.88
Standard Deviation	1.1%
<b>VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)</b>	18.16
Standard Deviation	1%
<b>VP9 libvpx Encoding - Speed 0 - Bosphorus 1080p (FPS)</b>	16.67
Standard Deviation	0.6%
<b>VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p (FPS)</b>	40.51
Standard Deviation	0.3%
<b>x264 - Bosphorus 4K (FPS)</b>	29.54
Standard Deviation	2.5%
<b>x264 - Bosphorus 1080p (FPS)</b>	125.80
Standard Deviation	1.3%
<b>x265 - Bosphorus 4K (FPS)</b>	13.76
Standard Deviation	2.4%
<b>x265 - Bosphorus 1080p (FPS)</b>	63.12
Standard Deviation	0.7%
<b>7-Zip Compression - Compression Rating (MIPS)</b>	71032
Standard Deviation	0.1%
<b>7-Zip Compression - D.R (MIPS)</b>	72660
Standard Deviation	0.3%
<b>Stockfish - Total Time (Nodes/s)</b>	26976086
Standard Deviation	2.4%
<b>asmFish - 1.H.M.2.D (Nodes/s)</b>	32132543
Standard Deviation	0.7%
<b>Stargate Digital Audio Workstation - 44100 - 512 (Render Ratio)</b>	3.573570
Standard Deviation	0.1%
<b>Stargate Digital Audio Workstation - 96000 - 512 (Render Ratio)</b>	2.635635
Standard Deviation	0.3%
<b>Stargate Digital Audio Workstation - 192000 - 512 (Render Ratio)</b>	1.816793
Standard Deviation	0.2%
<b>Stargate Digital Audio Workstation - 44100 - 1024 (Render Ratio)</b>	3.657383
Standard Deviation	0.8%
<b>Stargate Digital Audio Workstation - 480000 - 512 (Render Ratio)</b>	3.534784

	Standard Deviation	0.1%
<b>Stargate Digital Audio Workstation - 96000 - 1024 (Render Ratio)</b>	2.718972	
	Standard Deviation	0.2%
<b>Stargate Digital Audio Workstation - 192000 - 1024 (Render Ratio)</b>	1.873693	
	Standard Deviation	0.1%
<b>Stargate Digital Audio Workstation - 480000 - 1024 (Render Ratio)</b>	3.613405	
	Standard Deviation	0.3%
<b>libavif avifenc - 0 (sec)</b>	157.192	
	Standard Deviation	0.2%
<b>libavif avifenc - 2 (sec)</b>	73.674	
	Standard Deviation	0.4%
<b>libavif avifenc - 6 (sec)</b>	7.451	
	Standard Deviation	0.4%
<b>libavif avifenc - 6, Lossless (sec)</b>	11.357	
	Standard Deviation	0.4%
<b>libavif avifenc - 10, Lossless (sec)</b>	5.416	
	Standard Deviation	1.6%
<b>Parallel BZIP2 Compression - F.1.0.R.a.m.i.C (sec)</b>	7.361	
	Standard Deviation	1.8%
<b>Gzip Compression - L.S.T.A.T.t.g (sec)</b>	30.812	
	Standard Deviation	0%
<b>XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)</b>	30.003	
	Standard Deviation	0.1%
<b>FLAC Audio Encoding - WAV To FLAC (sec)</b>	14.250	
	Standard Deviation	0.1%
<b>LAME MP3 Encoding - WAV To MP3 (sec)</b>	5.940	
	Standard Deviation	0.1%
<b>FFmpeg - H.2.H.T.N.D (sec)</b>	4.577	
	Standard Deviation	1.8%
<b>Gcrypt Library (sec)</b>	176.322	
	Standard Deviation	0.6%
<b>m-queens - Time To Solve (sec)</b>	59.914	
	Standard Deviation	0.1%
<b>N-Queens - Elapsed Time (sec)</b>	13.555	
	Standard Deviation	0.1%
<b>System GZIP Decompression (sec)</b>	2.473	
	Standard Deviation	2.4%
<b>System XZ Decompression (sec)</b>	2.679	
	Standard Deviation	0.2%
<b>Aircrack-ng (k/s)</b>	39568	
	Standard Deviation	0%
<b>SecureMark - SecureMark-TLS (marks)</b>	317093	
	Standard Deviation	0.5%
<b>System ZLIB Decompression (ms)</b>	1340	
	Standard Deviation	0.8%
<b>OpenSSL - SHA256 (byte/s)</b>	13642655883	
	Standard Deviation	0.3%
<b>OpenSSL - RSA4096 (sign/s)</b>	2531	
	Standard Deviation	0.1%
<b>OpenSSL - RSA4096 (verify/s)</b>	165270	
	Standard Deviation	0%
<b>Cryptsetup - PBKDF2-sha512 (Iterations/sec)</b>	2240600	
	Standard Deviation	0.6%

**Cryptsetup - PBKDF2-whirlpool (Iterations/sec)** 830013  
Standard Deviation 0.3%

**Cryptsetup - A.X.2.E (MiB/s)** 5185  
Standard Deviation 2%

**Cryptsetup - A.X.2.D (MiB/s)** 5229  
Standard Deviation 1%

**Cryptsetup - S.X.2.E (MiB/s)** 929.7  
Standard Deviation 0.5%

**Cryptsetup - S.X.2.D (MiB/s)** 914.9  
Standard Deviation 0.4%

**Cryptsetup - T.X.2.E (MiB/s)** 496.6  
Standard Deviation 0.6%

**Cryptsetup - T.X.2.D (MiB/s)** 507.9  
Standard Deviation 0.7%

**Cryptsetup - A.X.5.E (MiB/s)** 4400  
Standard Deviation 0.7%

**Cryptsetup - A.X.5.D (MiB/s)** 4416  
Standard Deviation 0.4%

**Cryptsetup - S.X.5.E (MiB/s)** 929.4  
Standard Deviation 0.2%

**Cryptsetup - S.X.5.D (MiB/s)** 916.5  
Standard Deviation 0.1%

**Cryptsetup - T.X.5.E (MiB/s)** 499.2  
Standard Deviation 0%

**Cryptsetup - T.X.5.D (MiB/s)** 509.5  
Standard Deviation 0%

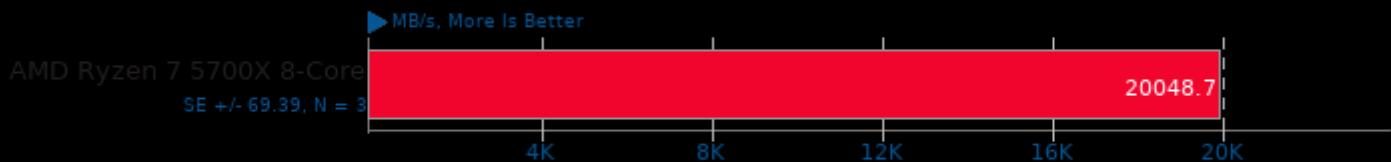
**RAR Compression - L.S.T.A.T.R (sec)** 39.200  
Standard Deviation 1.8%

**WavPack Audio Encoding - WAV To WavPack (sec)** 11.558  
Standard Deviation 0.1%

**GnuPG - 2.7.S.F.E (sec)** 53.890  
Standard Deviation 0.6%

## C-Blosc 2.3

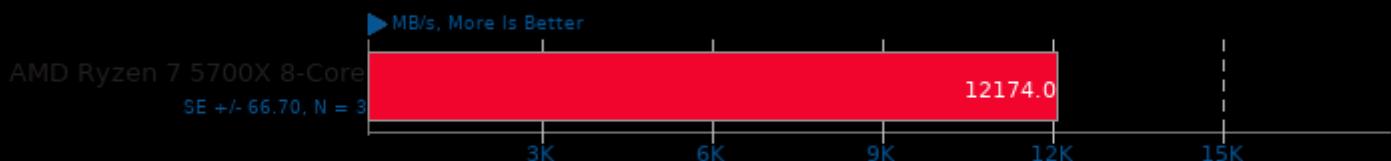
Test: blosclz shuffle



1. (CC) gcc options: -std=gnu99 -O3 -frt -lm

## C-Blosc 2.3

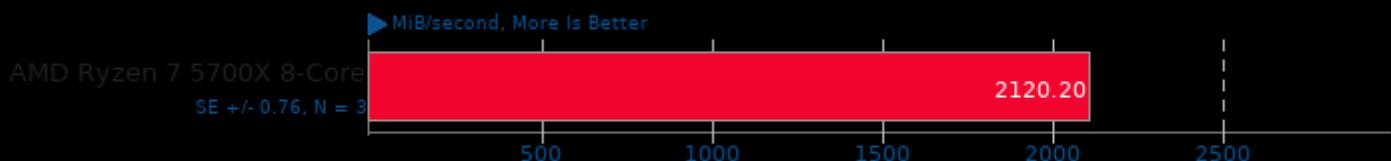
Test: blosclz bitshuffle



1. (CC) gcc options: -std=gnu99 -O3 -frt -lm

## Crypto++ 8.2

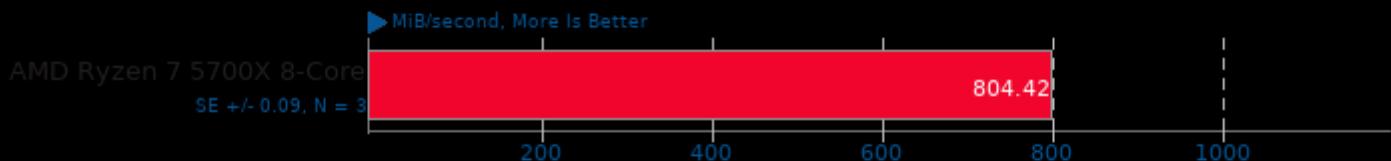
Test: All Algorithms



1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

## Crypto++ 8.2

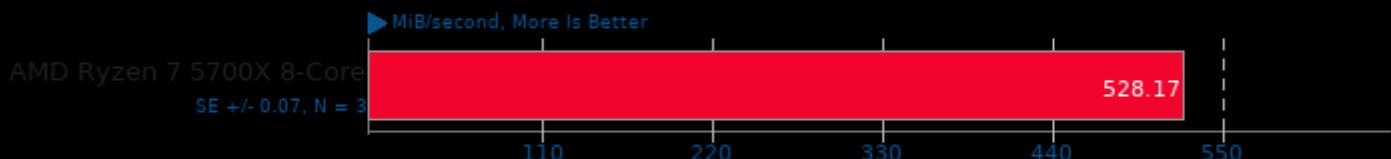
Test: Keyed Algorithms



1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

## Crypto++ 8.2

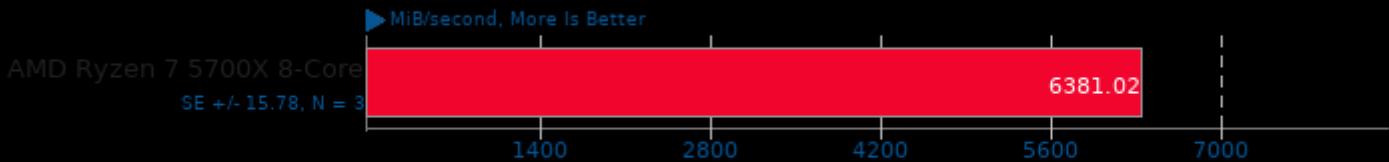
Test: Unkeyed Algorithms



1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

## Crypto++ 8.2

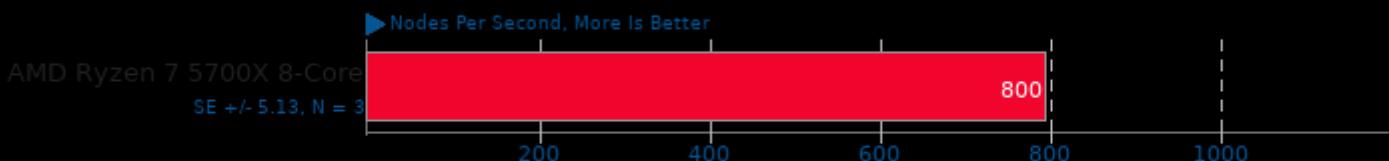
Test: Integer + Elliptic Curve Public Key Algorithms



1. (CXX) g++ options: -g2 -O3 -fPIC -pthread -pipe

## LeelaChessZero 0.28

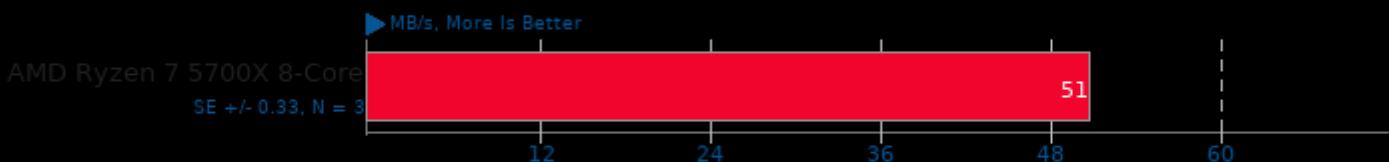
Backend: BLAS



1. (CXX) g++ options: -fno -pthread

## Izbench 1.8

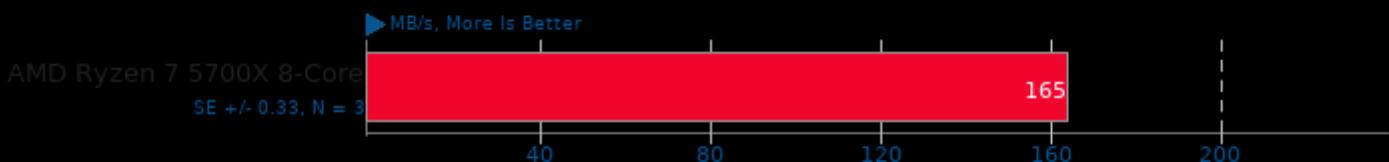
Test: XZ 0 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

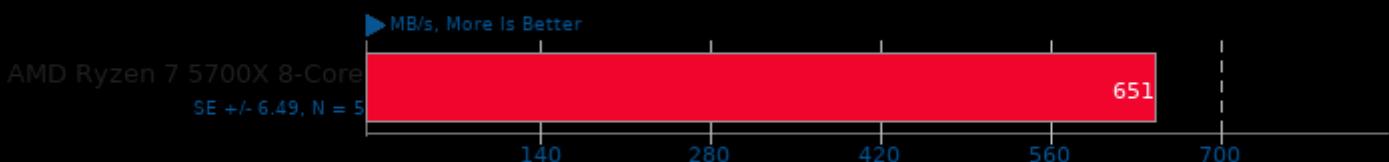
Test: XZ 0 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

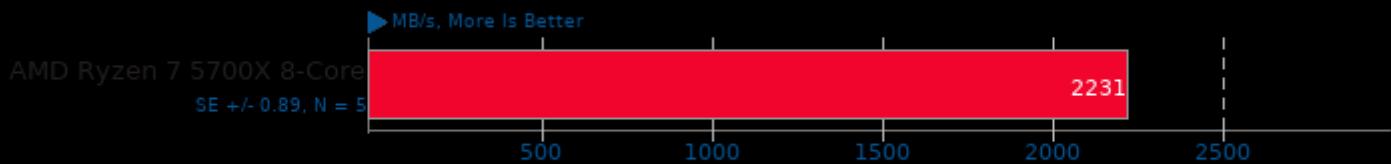
Test: Zstd 1 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

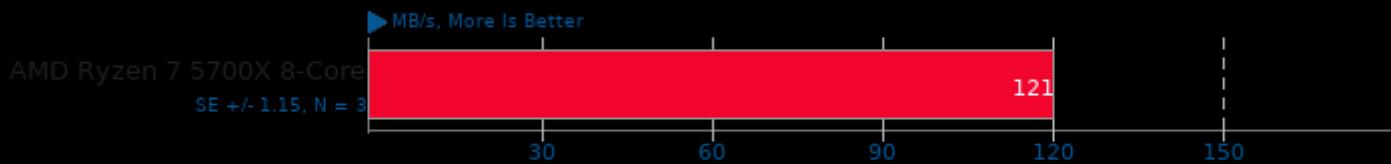
Test: Zstd 1 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

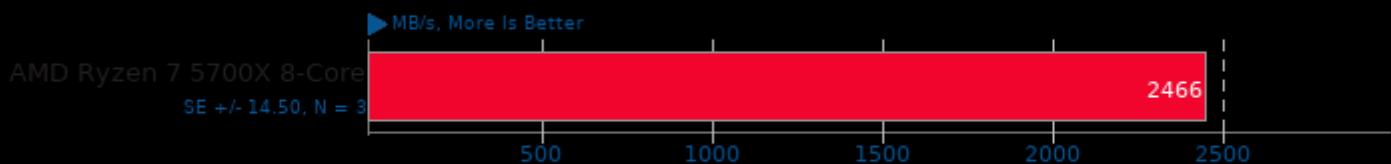
Test: Zstd 8 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

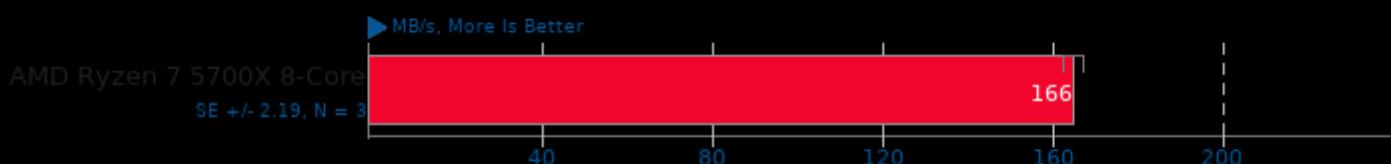
Test: Zstd 8 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

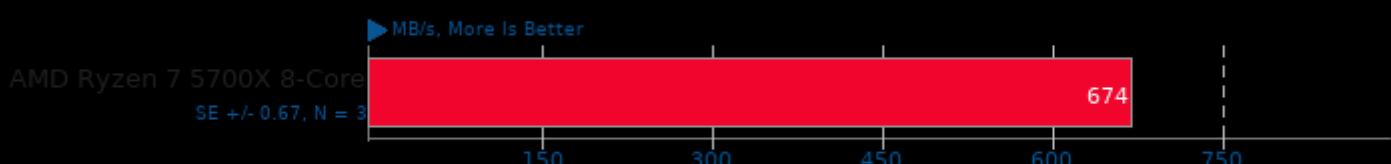
Test: Crush 0 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

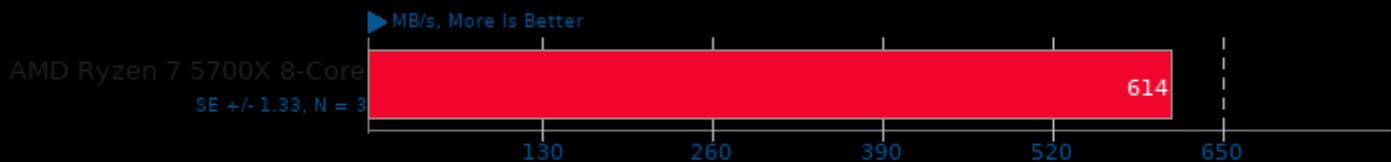
Test: Crush 0 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

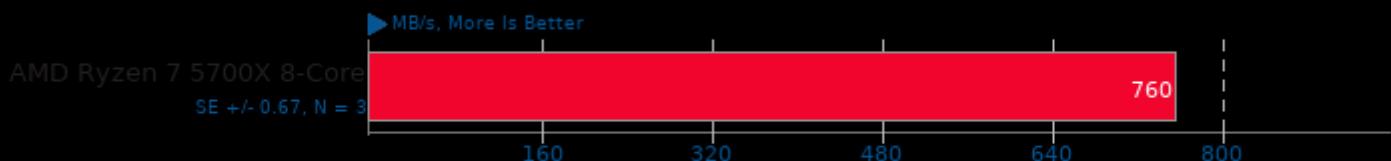
Test: Brotli 0 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

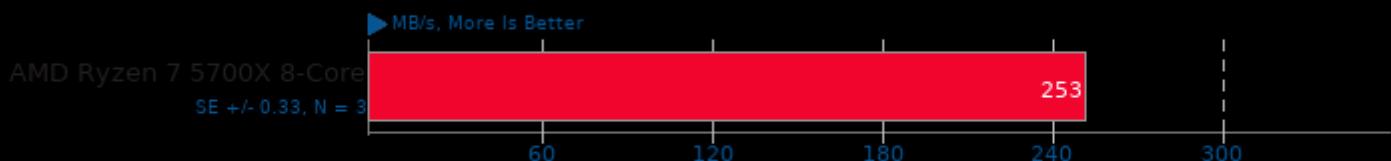
Test: Brotli 0 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

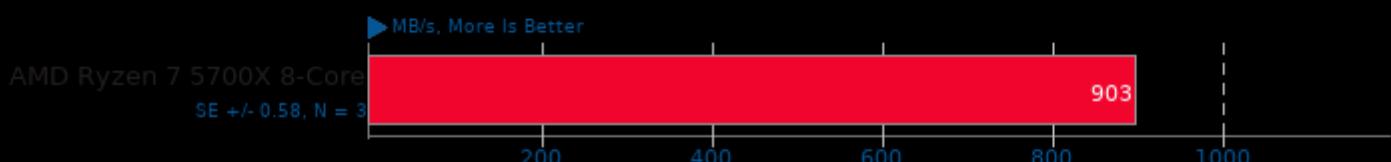
Test: Brotli 2 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

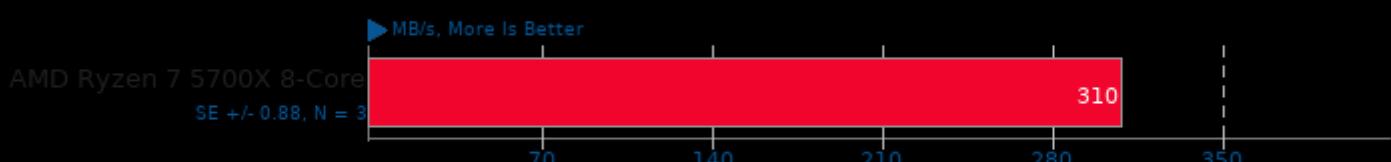
Test: Brotli 2 - Process: Decompression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

## Izbench 1.8

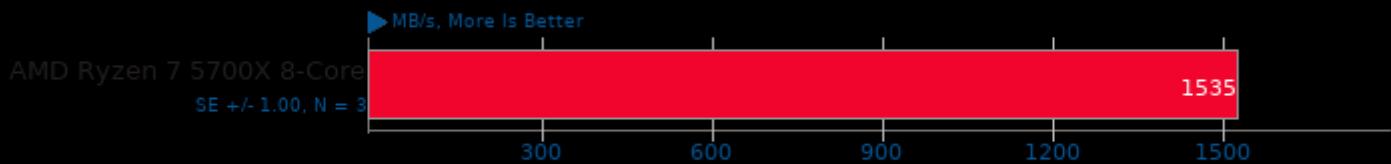
Test: Libdeflate 1 - Process: Compression



1. (CXX) g++ options: -pthread -fomit-frame-pointer -fstrict-aliasing -ffast-math -O3

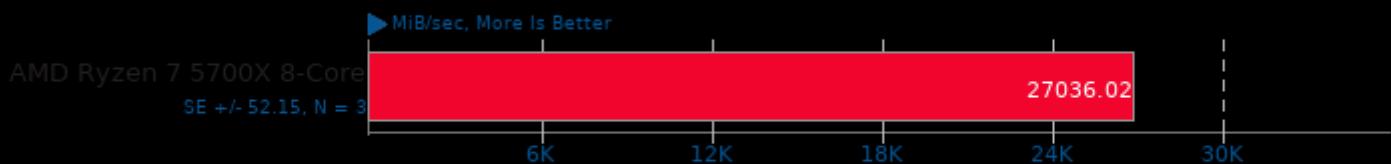
## Izbench 1.8

Test: Libdeflate 1 - Process: Decompression



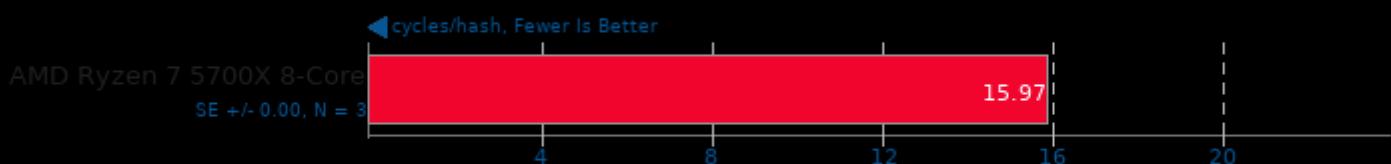
## SMHasher 2022-08-22

Hash: wyhash



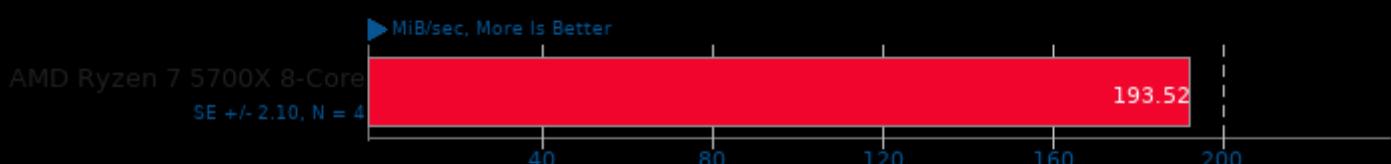
## SMHasher 2022-08-22

Hash: wyhash



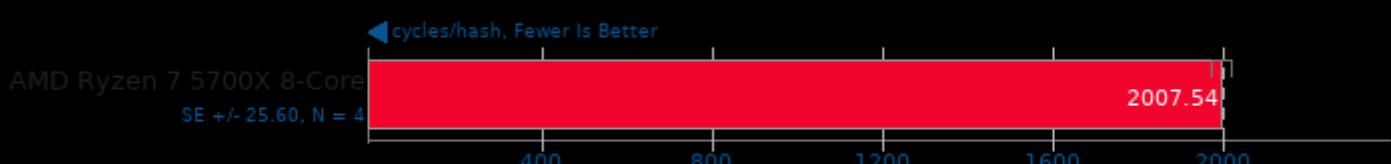
## SMHasher 2022-08-22

Hash: SHA3-256



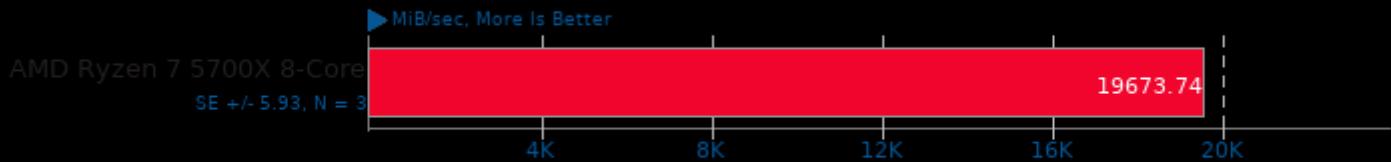
## SMHasher 2022-08-22

Hash: SHA3-256



**SMHasher 2022-08-22**

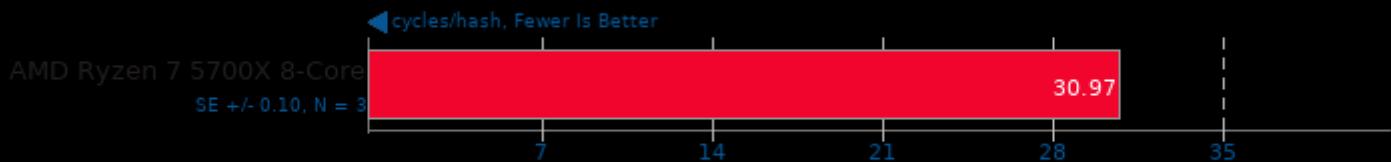
Hash: Spooky32



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

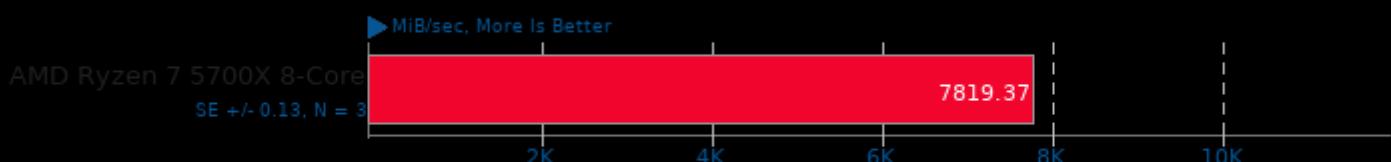
Hash: Spooky32



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

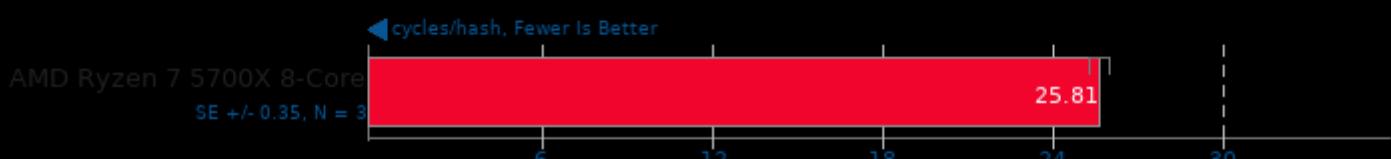
Hash: fasthash32



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

Hash: fasthash32



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

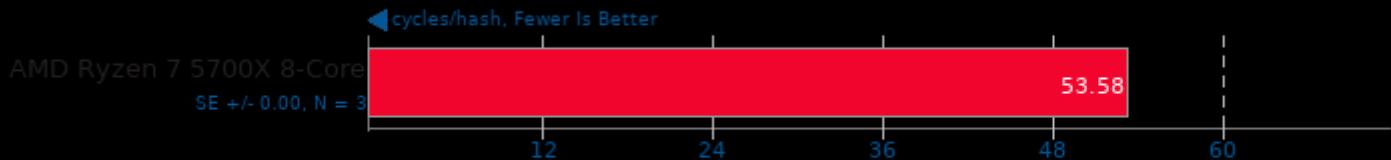
Hash: FarmHash128



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

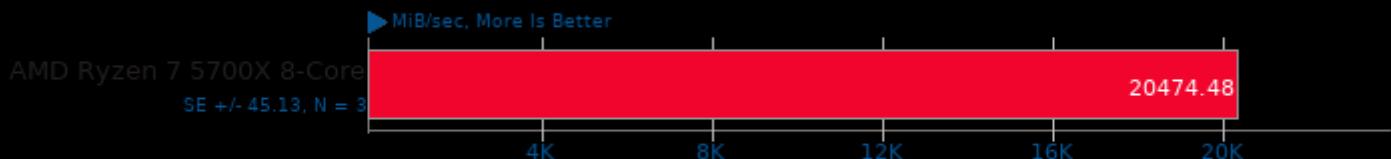
Hash: FarmHash128



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

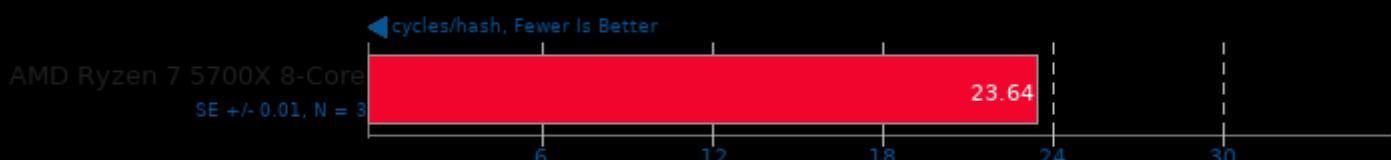
Hash: tlha2\_atonce



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

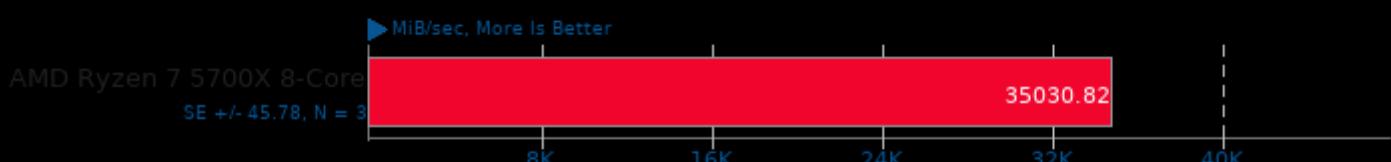
Hash: tlha2\_atonce



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

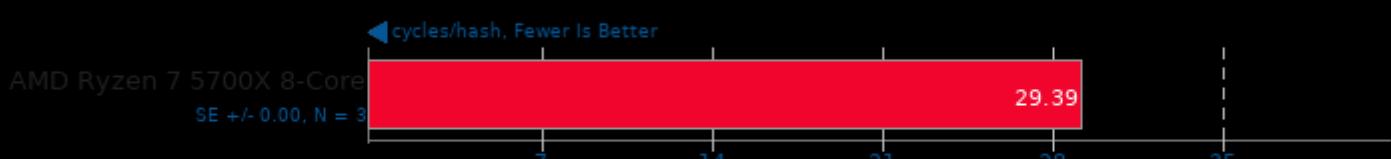
Hash: FarmHash32\_x86\_64\_AVX



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

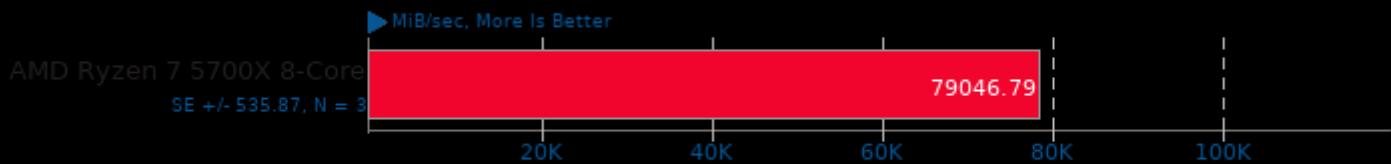
Hash: FarmHash32\_x86\_64\_AVX



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

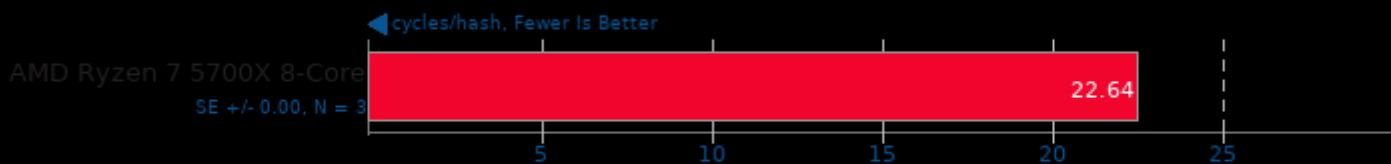
Hash: t1ha0\_aes\_avx2 x86\_64



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

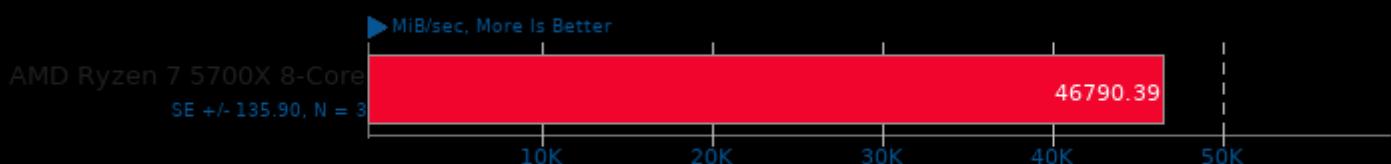
Hash: t1ha0\_aes\_avx2 x86\_64



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

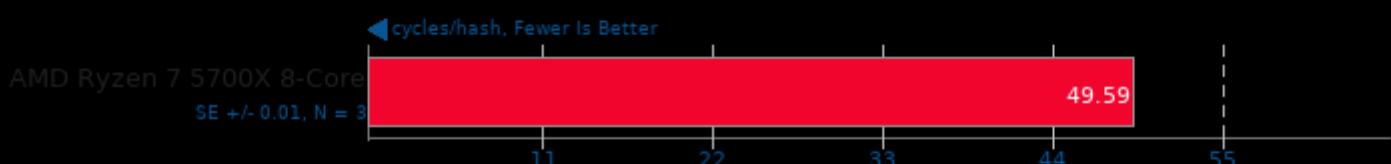
Hash: MeowHash x86\_64 AES-NI



1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**SMHasher 2022-08-22**

Hash: MeowHash x86\_64 AES-NI



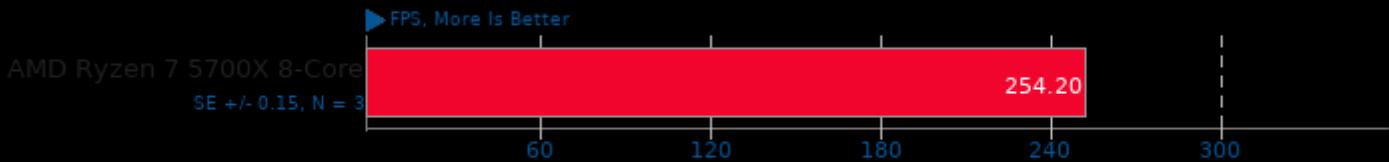
1. (CXX) g++ options: -march=native -O3 -fno-fat-lto-objects

**BLAKE2 20170307**

1. (CC) gcc options: -O3 -march=native -lcrypto -lz

**libgavl 0.17**

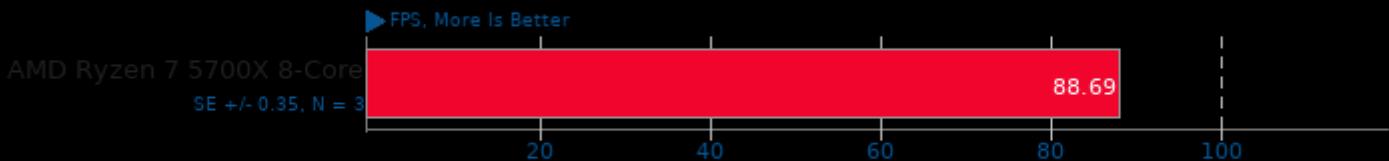
Video Input: Chimera 1080p



1. (CXX) g++ options: -O3 -frt

**libgavl 0.17**

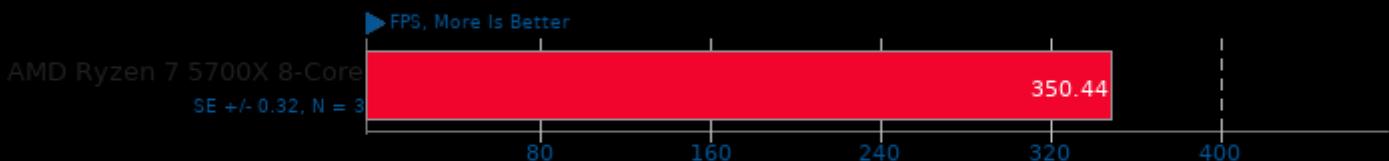
Video Input: Summer Nature 4K



1. (CXX) g++ options: -O3 -frt

**libgavl 0.17**

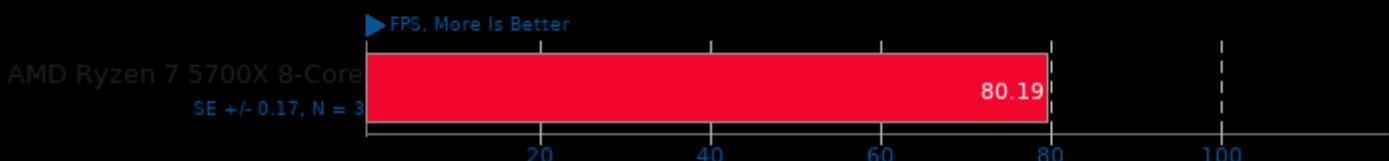
Video Input: Summer Nature 1080p



1. (CXX) g++ options: -O3 -frt

**libgavl 0.17**

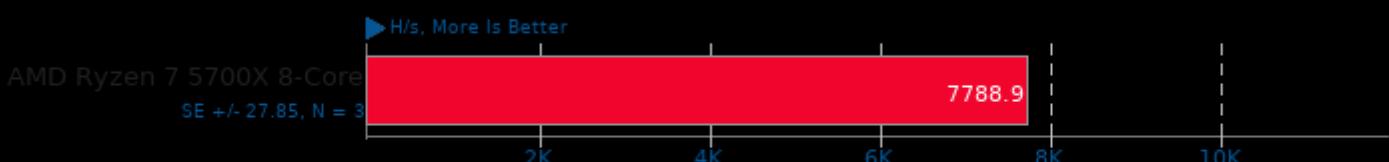
Video Input: Chimera 1080p 10-bit



1. (CXX) g++ options: -O3 -frt

**Xmrig 6.18.1**

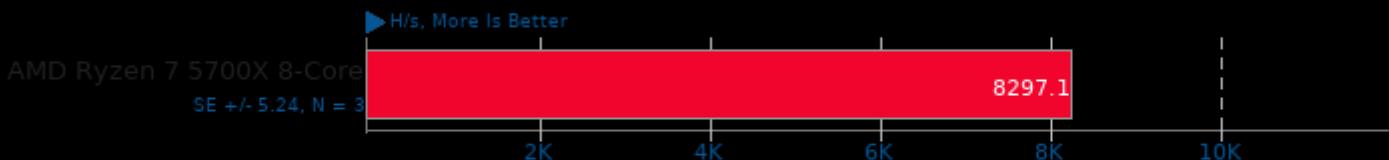
Variant: Monero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

## Xmrig 6.18.1

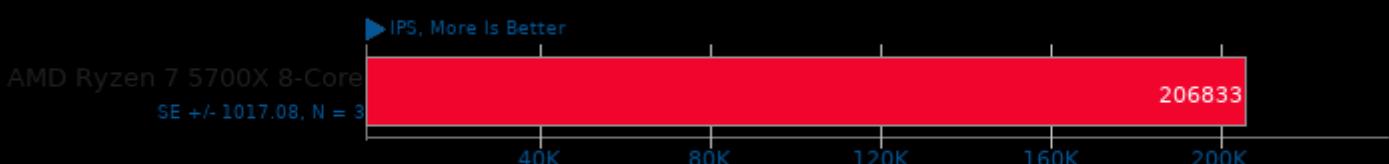
Variant: Wownero - Hash Count: 1M



1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

## Chia Blockchain VDF 1.0.7

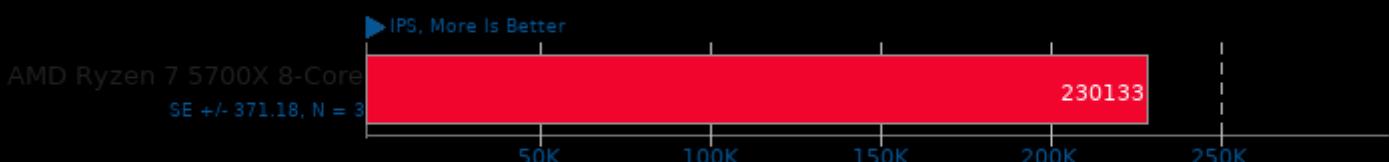
Test: Square Plain C++



1. (CXX) g++ options: -fno-pie -lgmpxx -lgmp -lboost\_system -pthread

## Chia Blockchain VDF 1.0.7

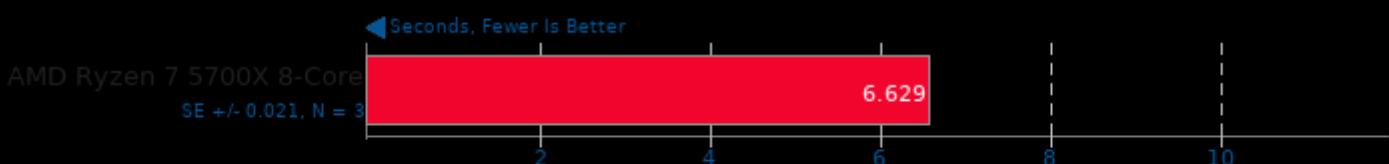
Test: Square Assembly Optimized



1. (CXX) g++ options: -fno-pie -lgmpxx -lgmp -lboost\_system -pthread

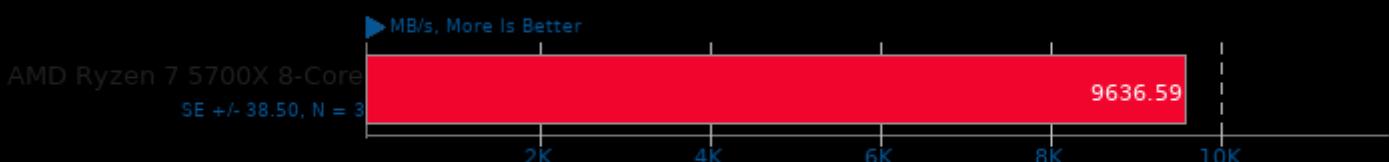
## Bork File Encrypter 1.4

File Encryption Time



## LZ4 Compression 1.9.3

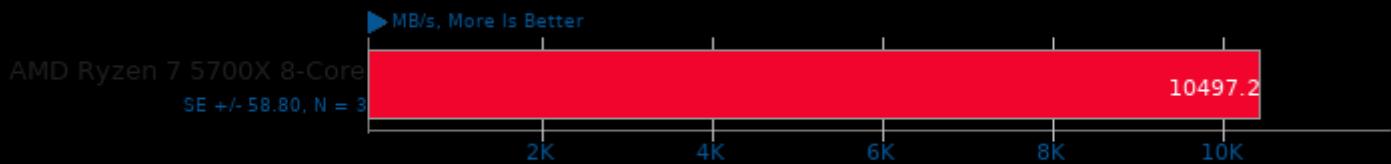
Compression Level: 1 - Compression Speed



1. (CC) gcc options: -O3

## LZ4 Compression 1.9.3

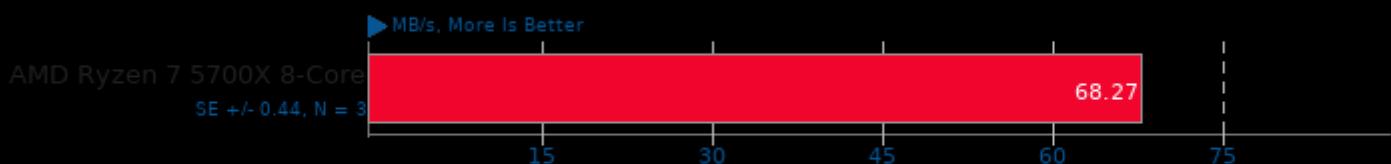
Compression Level: 1 - Decompression Speed



1. (CC) gcc options: -O3

## LZ4 Compression 1.9.3

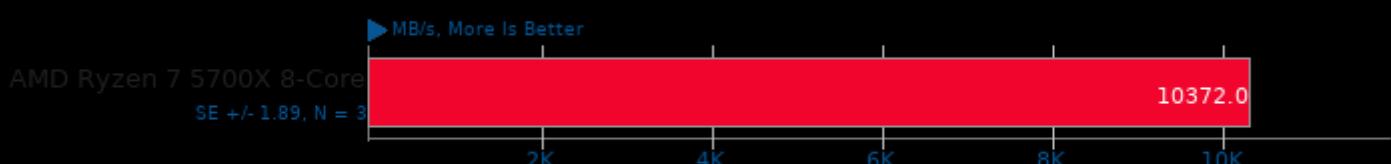
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3

## LZ4 Compression 1.9.3

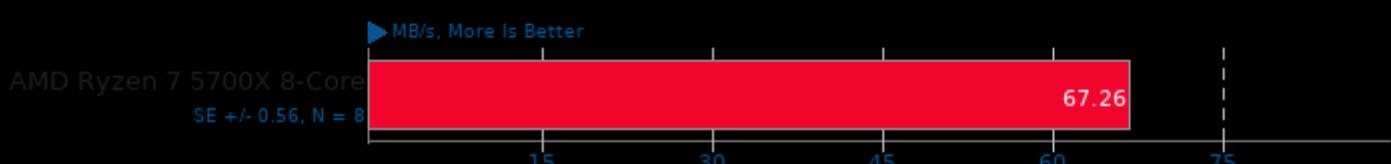
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3

## LZ4 Compression 1.9.3

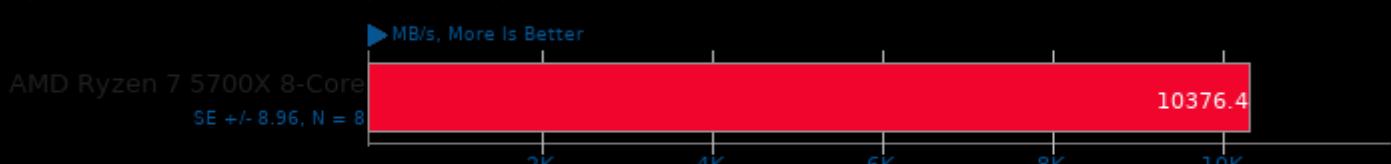
Compression Level: 9 - Compression Speed



1. (CC) gcc options: -O3

## LZ4 Compression 1.9.3

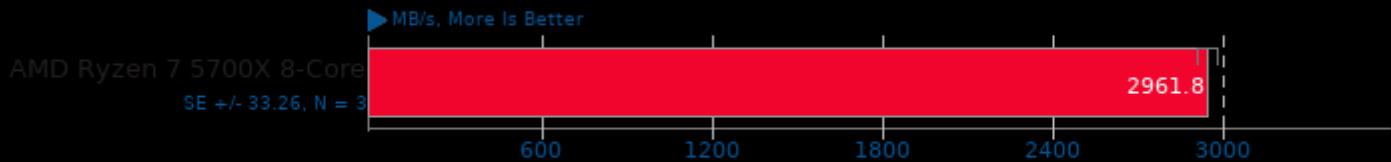
Compression Level: 9 - Decompression Speed



1. (CC) gcc options: -O3

## Zstd Compression 1.5.0

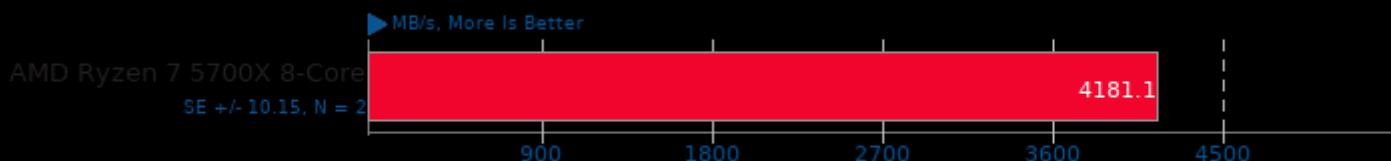
Compression Level: 3 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

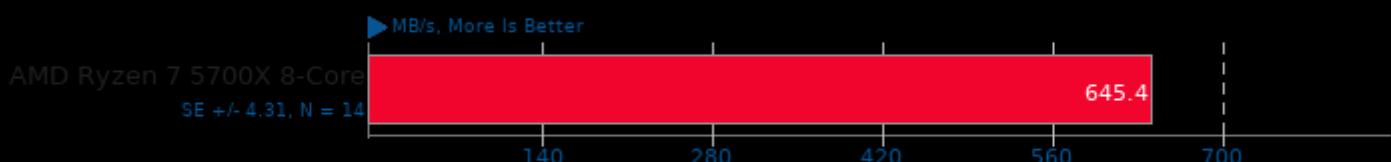
Compression Level: 3 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

Compression Level: 8 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

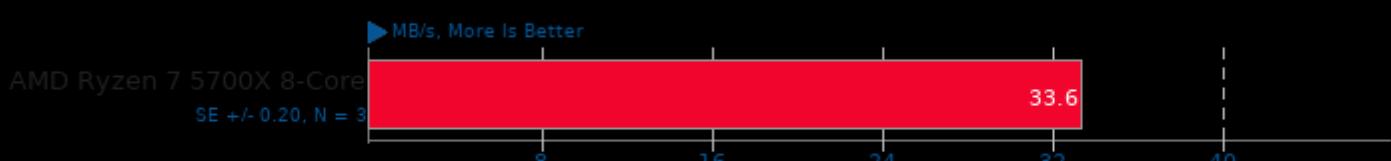
Compression Level: 8 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

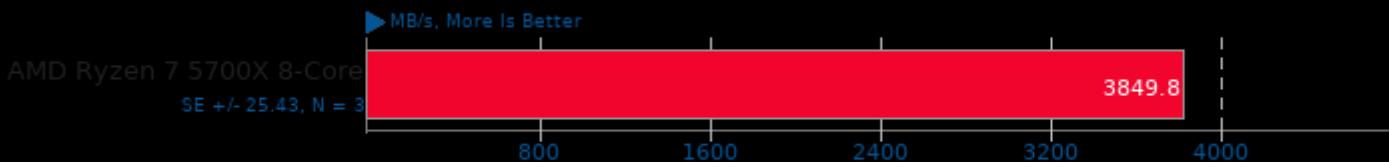
Compression Level: 19 - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

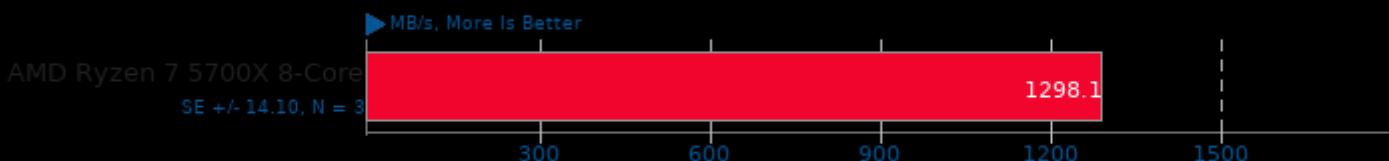
Compression Level: 19 - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

Compression Level: 3, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

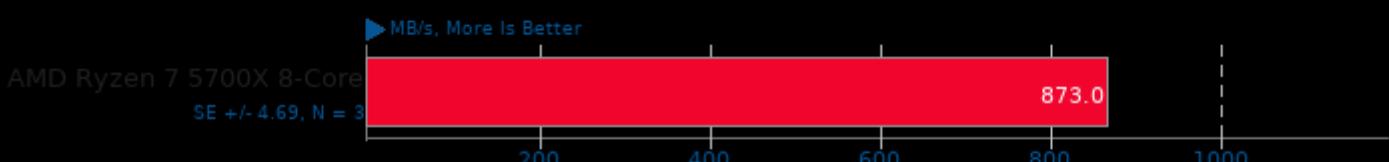
Compression Level: 3, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

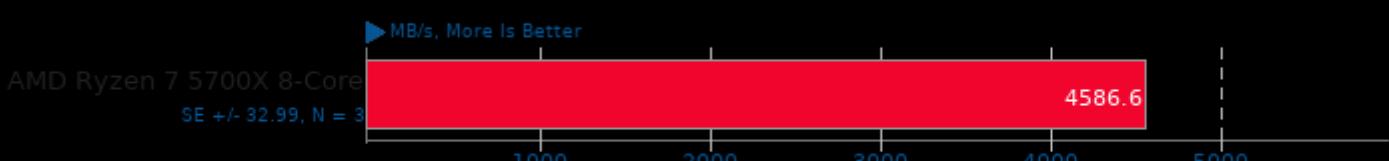
Compression Level: 8, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

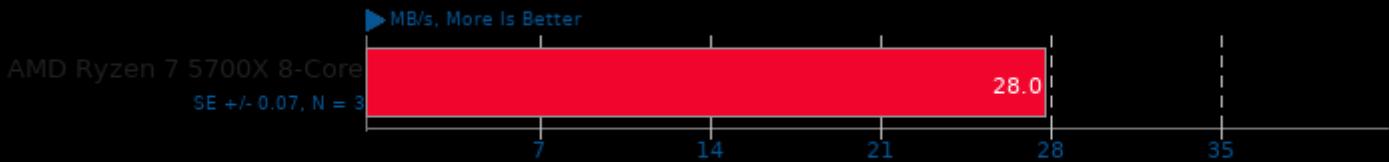
Compression Level: 8, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -lizma

## Zstd Compression 1.5.0

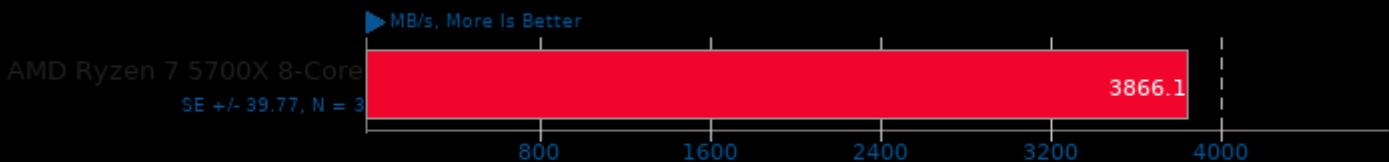
Compression Level: 19, Long Mode - Compression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

## Zstd Compression 1.5.0

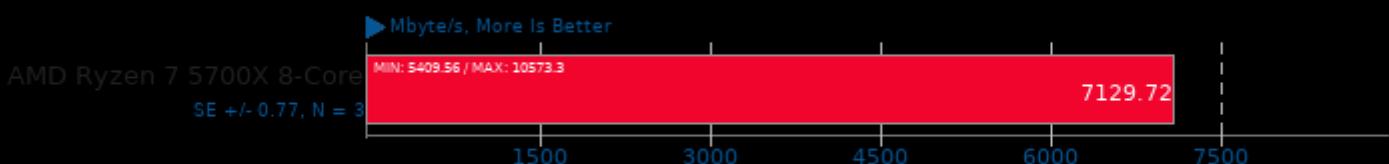
Compression Level: 19, Long Mode - Decompression Speed



1. (CC) gcc options: -O3 -pthread -lz -llzma

## Nettle 3.8

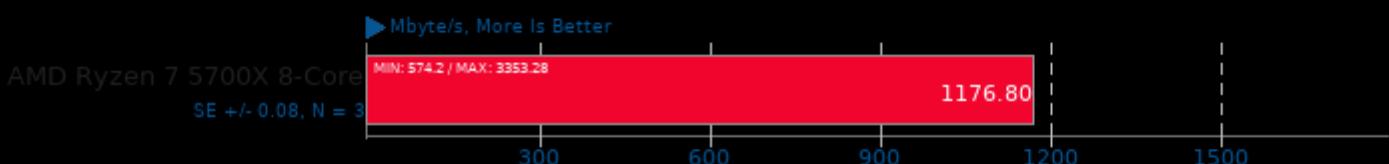
Test: aes256



1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

## Nettle 3.8

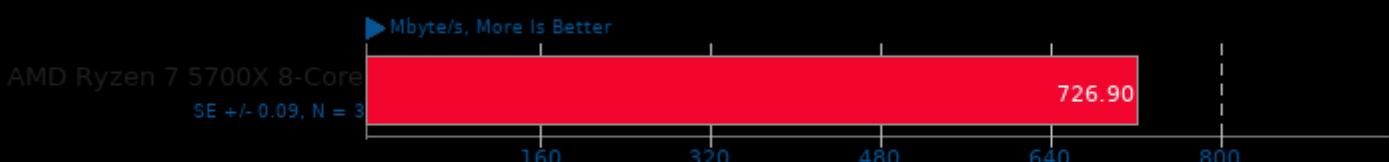
Test: chacha



1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

## Nettle 3.8

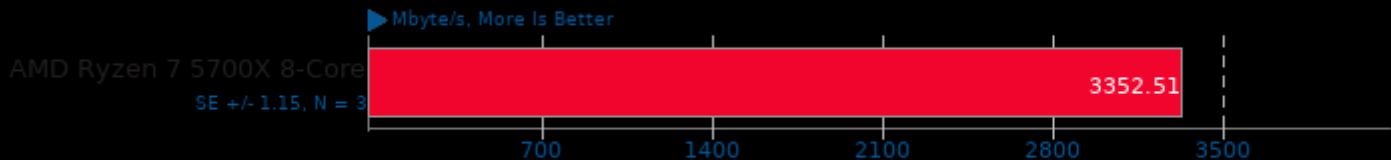
Test: sha512



1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

## Nettle 3.8

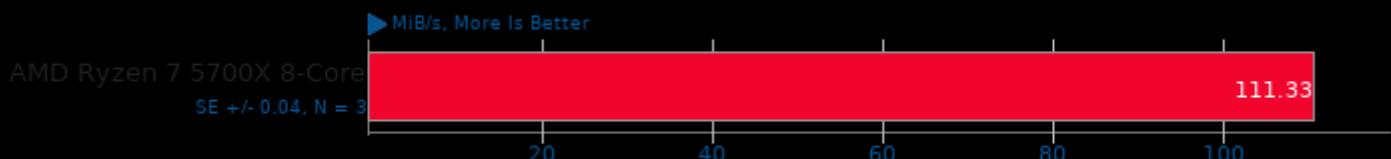
Test: poly1305-aes



1. (CC) gcc options: -O2 -ggdb3 -lnettle -lgmp -lm -lcrypto

## Botan 2.17.3

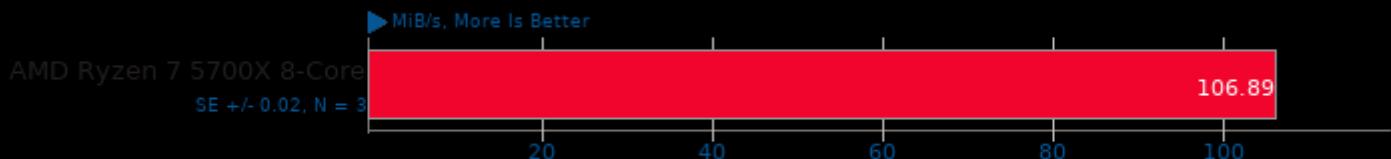
Test: KASUMI



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

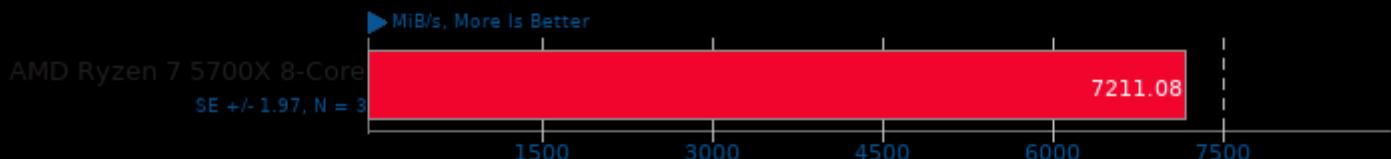
Test: KASUMI - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

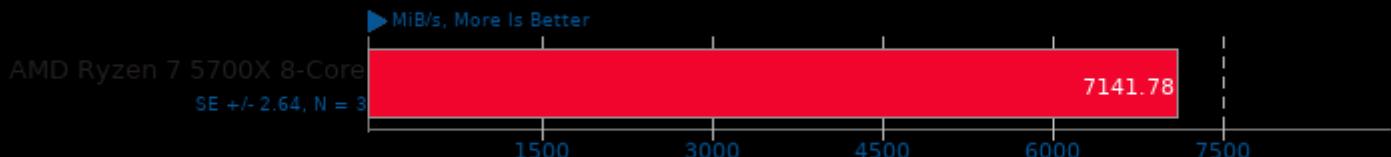
Test: AES-256



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

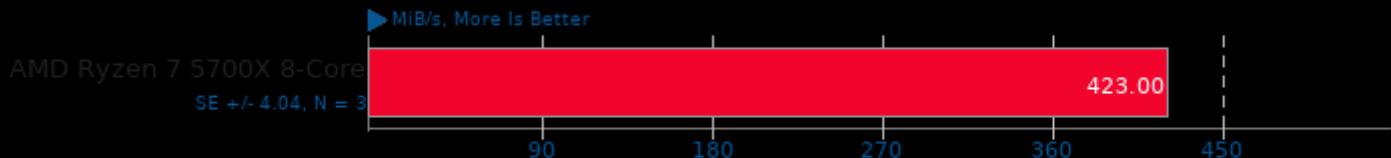
Test: AES-256 - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

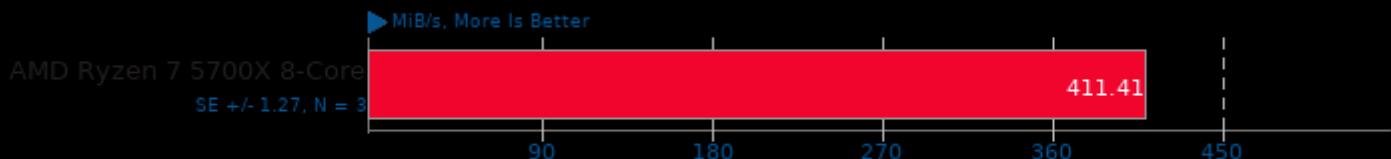
Test: Twofish



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

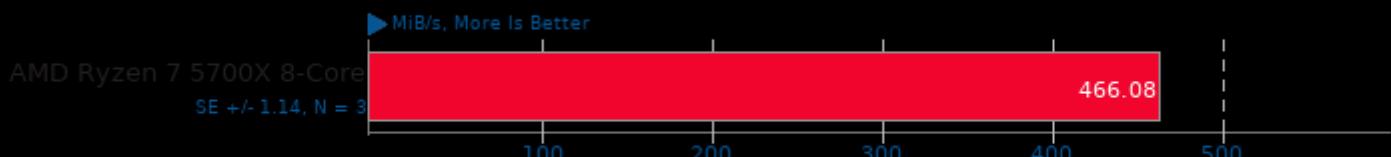
Test: Twofish - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

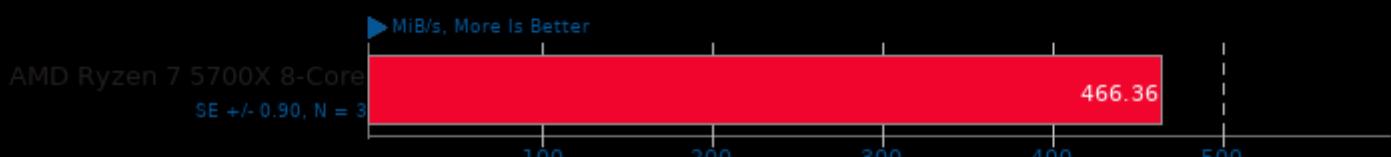
Test: Blowfish



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

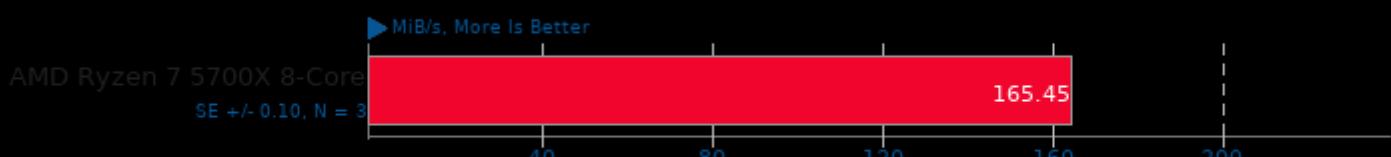
Test: Blowfish - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

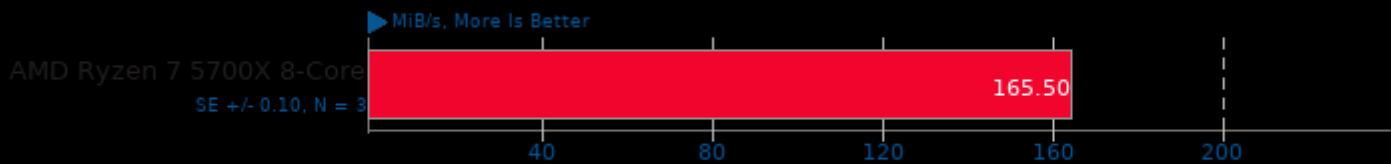
Test: CAST-256



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

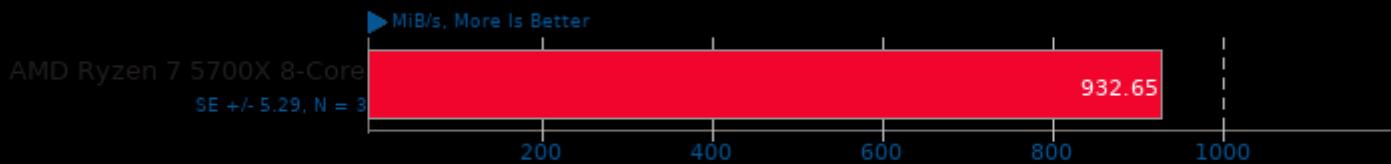
Test: CAST-256 - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

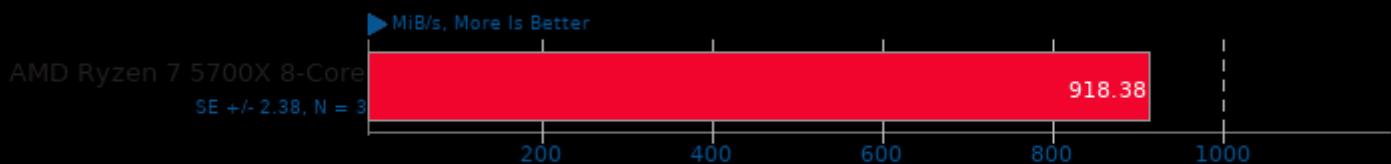
Test: ChaCha20Poly1305



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Botan 2.17.3

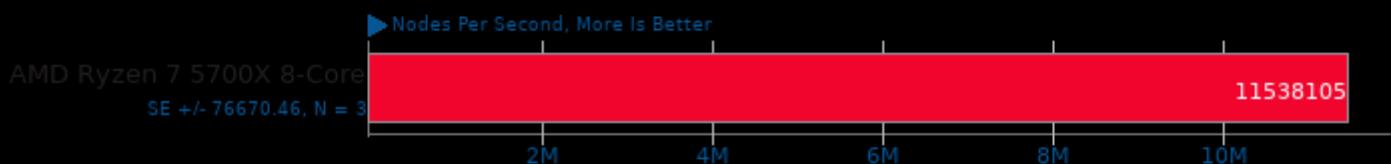
Test: ChaCha20Poly1305 - Decrypt



1. (CXX) g++ options: -fstack-protector -m64 -pthread -lbotan-2 -ldl -lrt

## Crafty 25.2

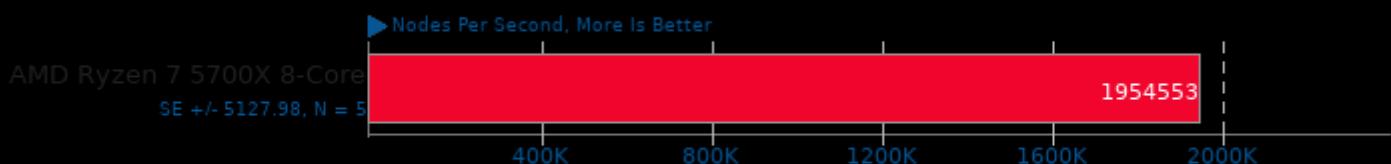
Elapsed Time



1. (CC) gcc options: -pthread -stdc++ -fprofile-use -lm

## TSCP 1.81

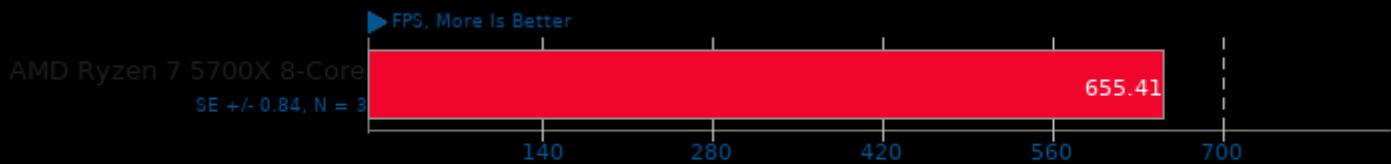
AI Chess Performance



1. (CC) gcc options: -O3 -march=native

**dav1d 1.0**

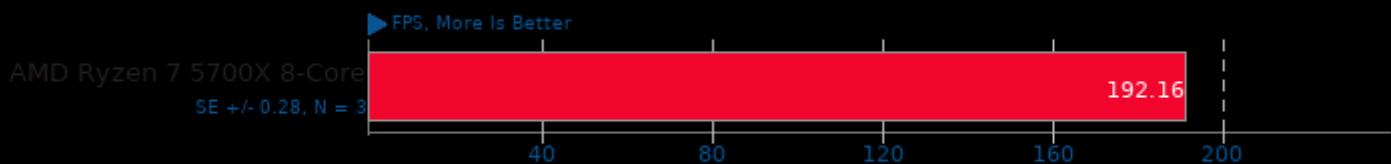
Video Input: Chimera 1080p



1. (CC) gcc options: -pthread -lm

**dav1d 1.0**

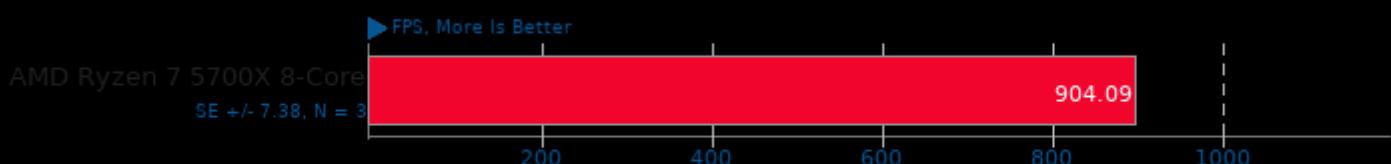
Video Input: Summer Nature 4K



1. (CC) gcc options: -pthread -lm

**dav1d 1.0**

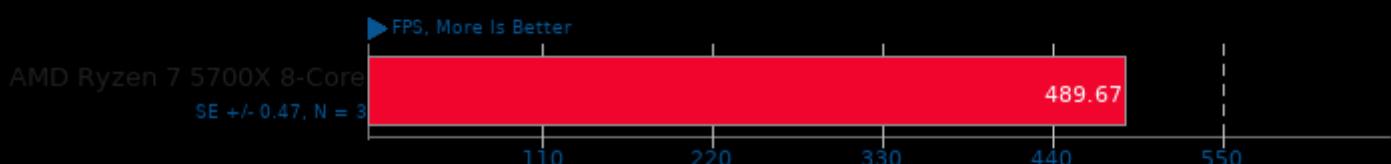
Video Input: Summer Nature 1080p



1. (CC) gcc options: -pthread -lm

**dav1d 1.0**

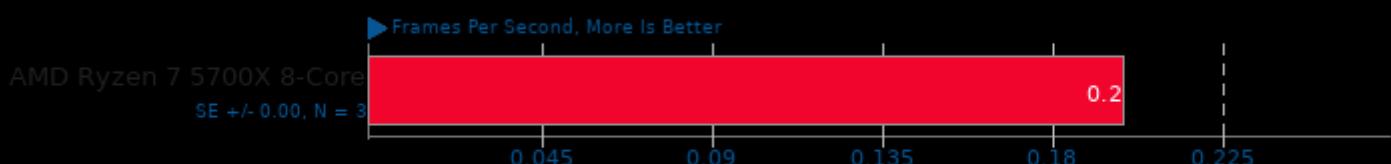
Video Input: Chimera 1080p 10-bit



1. (CC) gcc options: -pthread -lm

**AOM AV1 3.5**

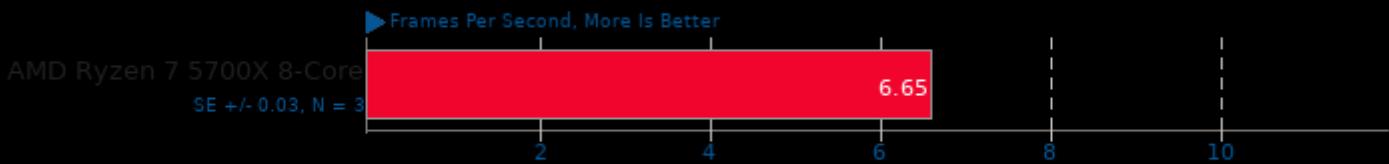
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm

## AOM AV1 3.5

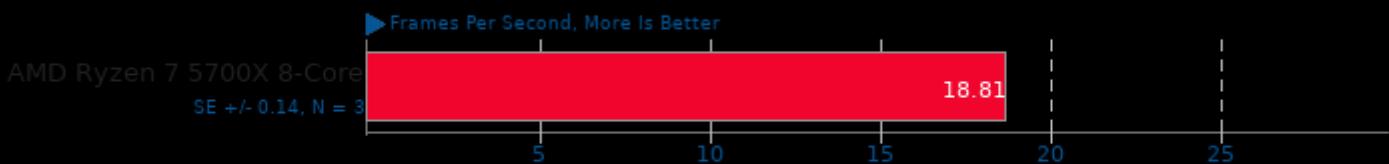
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

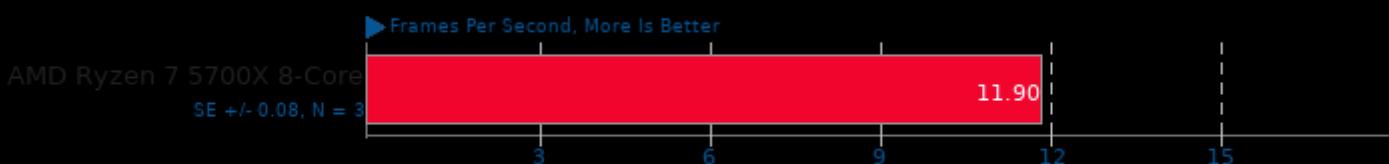
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

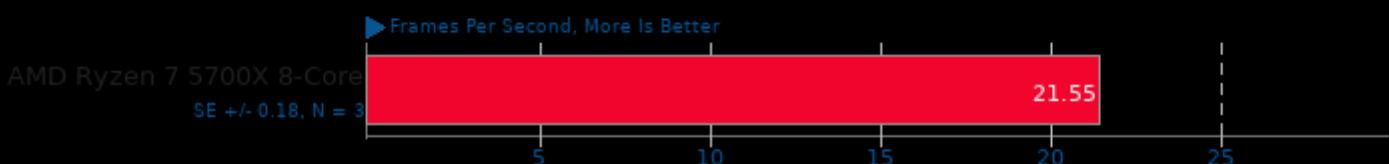
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

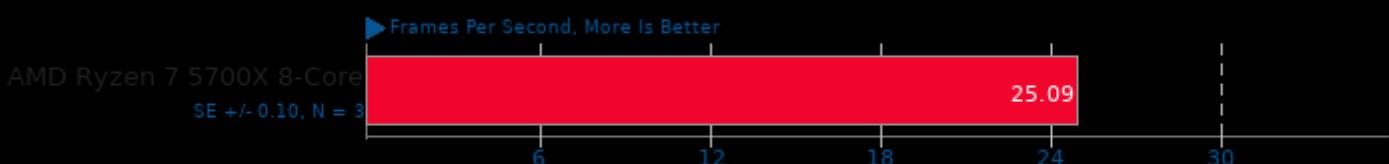
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

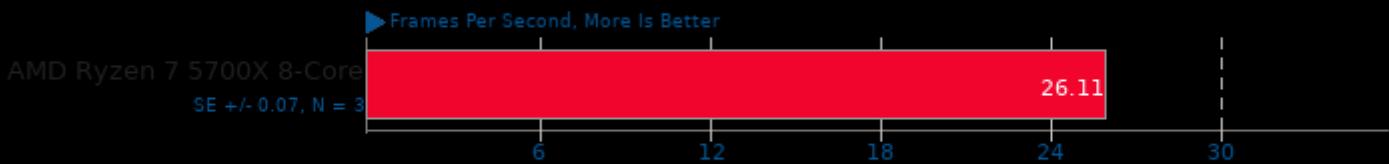
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

Encoder Mode: Speed 10 Realtime - Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

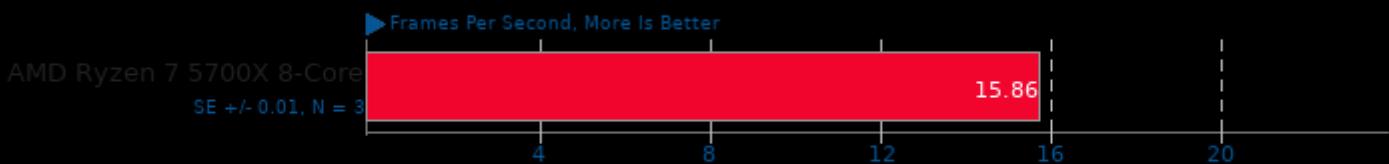
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

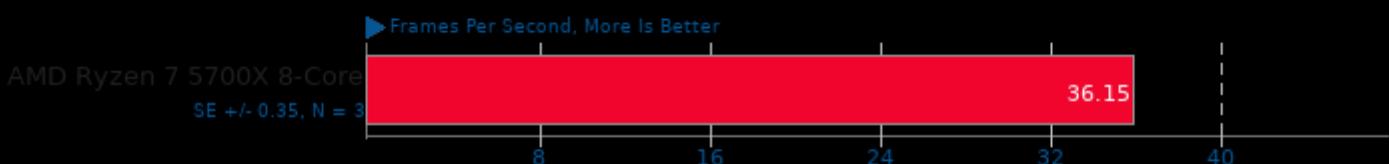
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

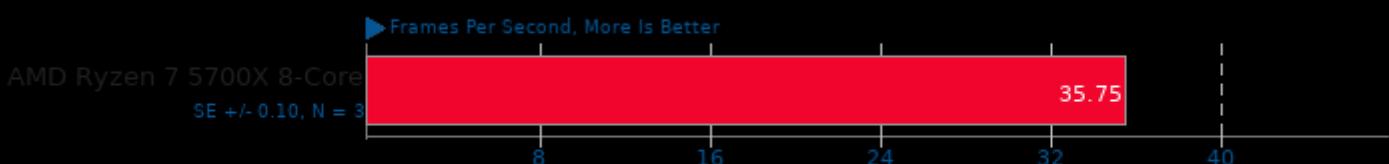
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

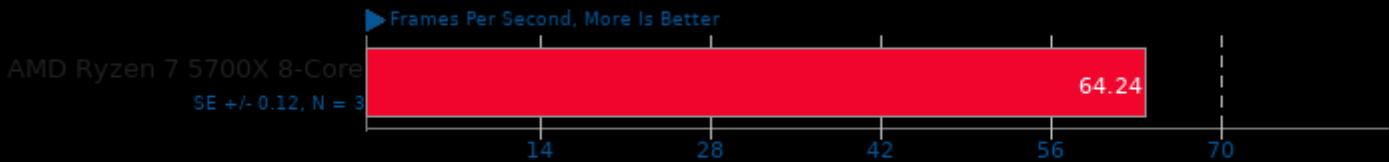
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -fno-math-errno

## AOM AV1 3.5

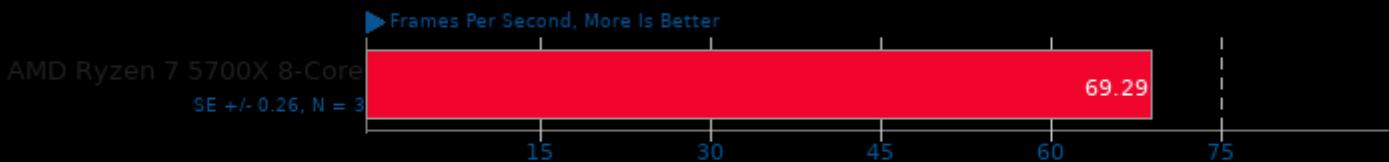
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm

## AOM AV1 3.5

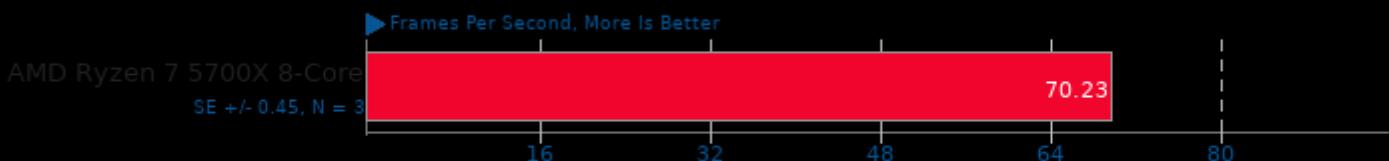
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm

## AOM AV1 3.5

Encoder Mode: Speed 10 Realtime - Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -std=c++11 -U\_FORTIFY\_SOURCE -lm

## Kvazaar 2.1

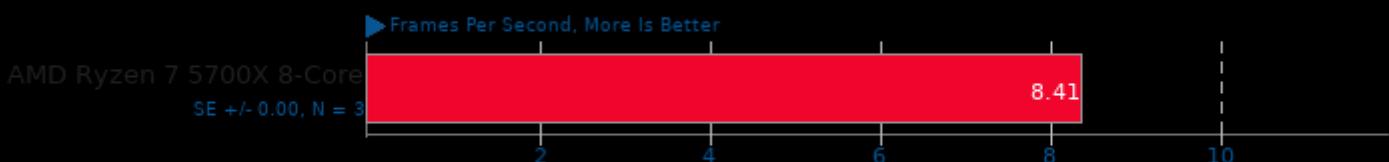
Video Input: Bosphorus 4K - Video Preset: Slow



1. (CC) gcc options: -pthread -fno-tree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

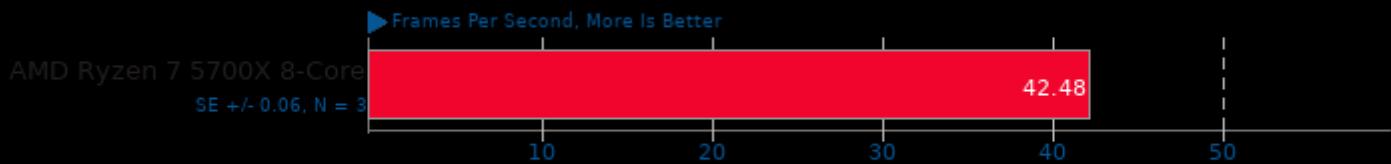
Video Input: Bosphorus 4K - Video Preset: Medium



1. (CC) gcc options: -pthread -fno-tree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

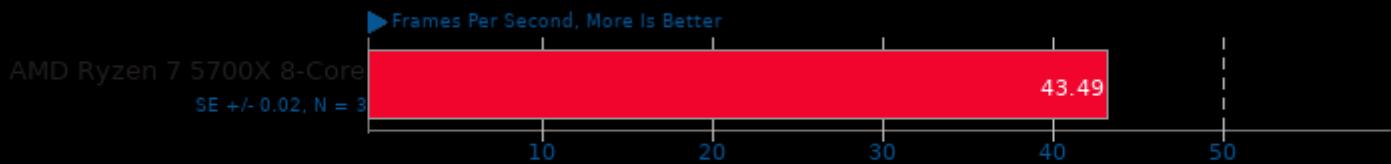
Video Input: Bosphorus 1080p - Video Preset: Slow



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

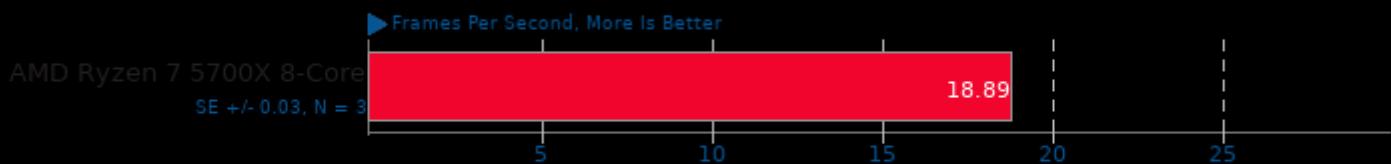
Video Input: Bosphorus 1080p - Video Preset: Medium



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

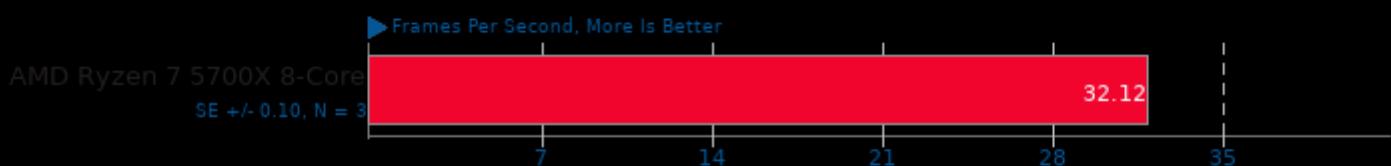
Video Input: Bosphorus 4K - Video Preset: Very Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

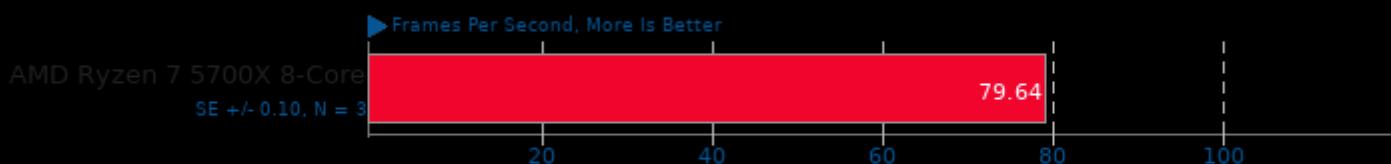
Video Input: Bosphorus 4K - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

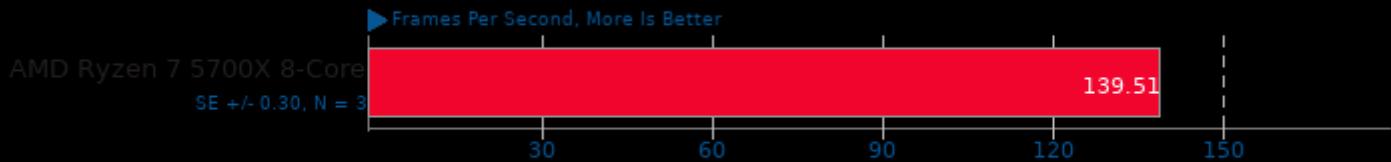
Video Input: Bosphorus 1080p - Video Preset: Very Fast



1. (CC) gcc options: -pthread -fthread-vectorize -visibility=hidden -O2 -lpthread -lm -lrt

## Kvazaar 2.1

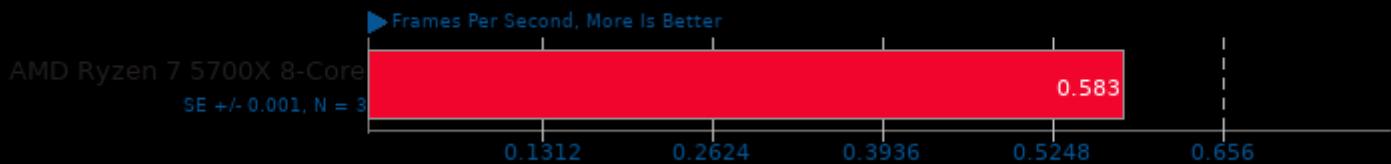
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



1. (CC) gcc options: -pthread -fno-tree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

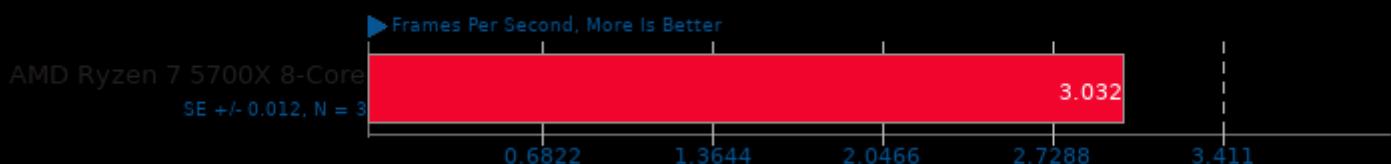
## rav1e 0.5

Speed: 1



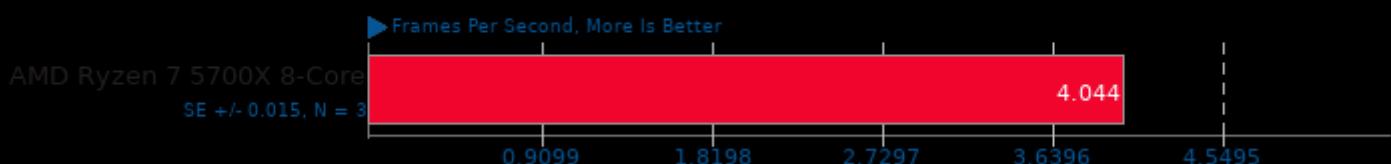
## rav1e 0.5

Speed: 5



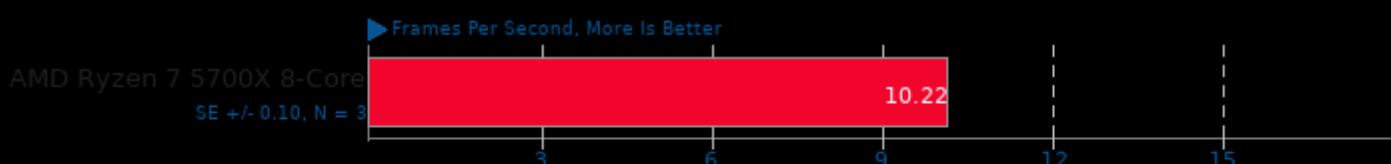
## rav1e 0.5

Speed: 6



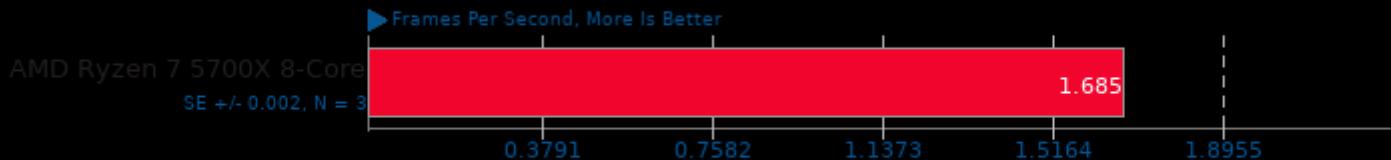
## rav1e 0.5

Speed: 10



## SVT-AV1 1.2

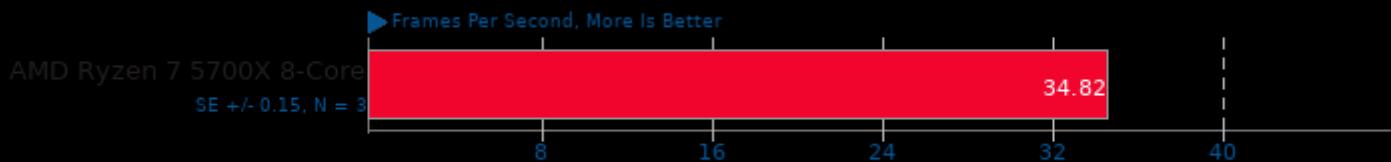
Encoder Mode: Preset 4 - Input: Bosphorus 4K



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

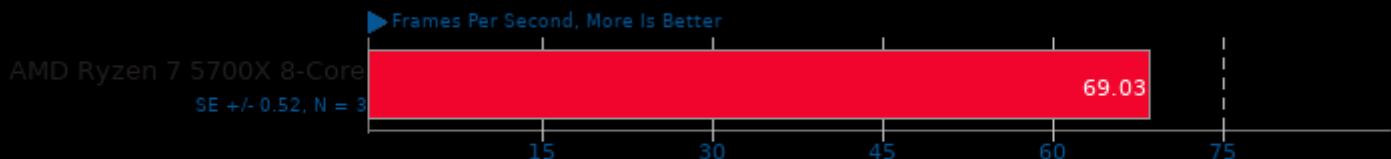
Encoder Mode: Preset 8 - Input: Bosphorus 4K



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

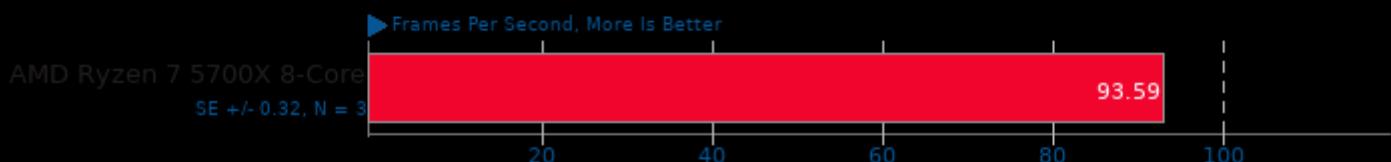
Encoder Mode: Preset 10 - Input: Bosphorus 4K



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

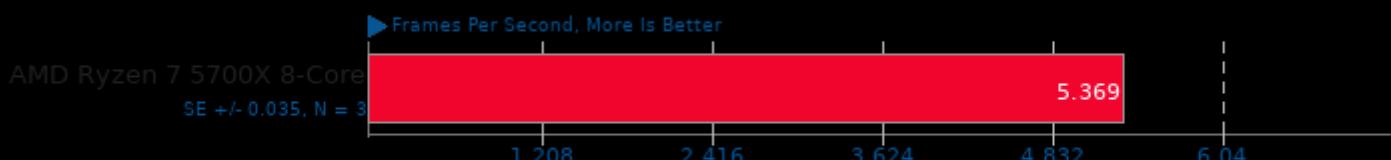
Encoder Mode: Preset 12 - Input: Bosphorus 4K



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

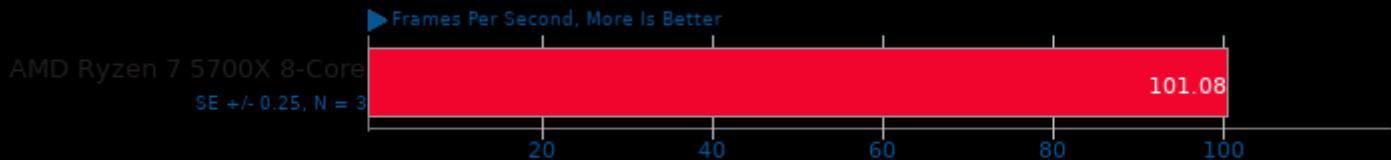
Encoder Mode: Preset 4 - Input: Bosphorus 1080p



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

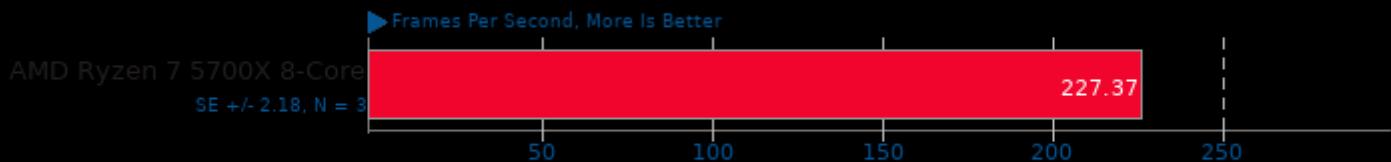
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

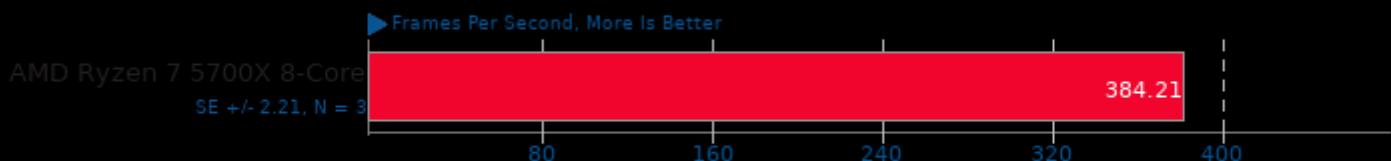
Encoder Mode: Preset 10 - Input: Bosphorus 1080p



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-AV1 1.2

Encoder Mode: Preset 12 - Input: Bosphorus 1080p



1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

## SVT-HEVC 1.5.0

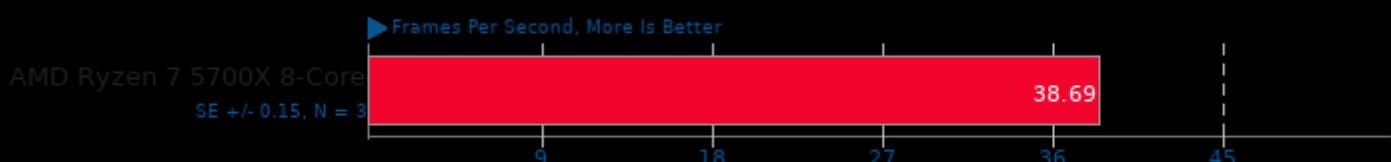
Tuning: 1 - Input: Bosphorus 4K



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

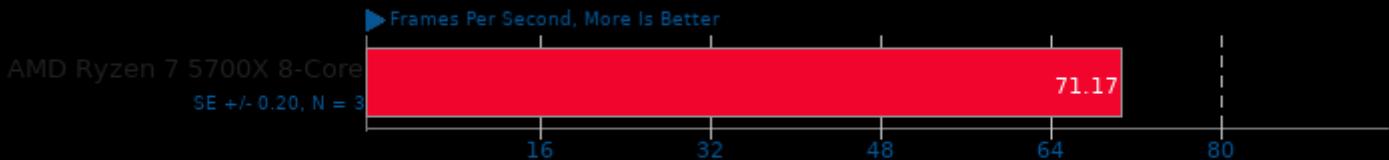
Tuning: 7 - Input: Bosphorus 4K



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

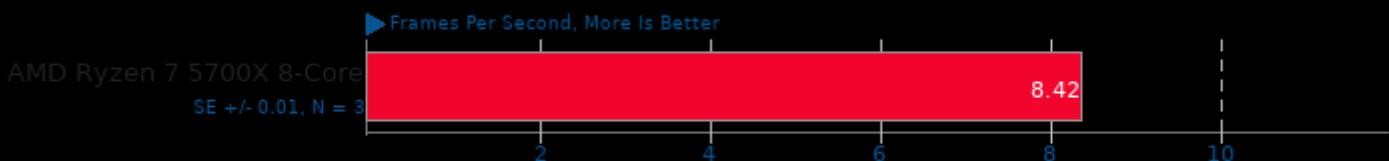
Tuning: 10 - Input: Bosphorus 4K



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

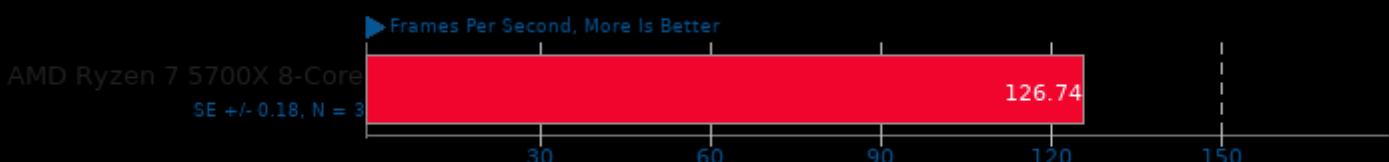
Tuning: 1 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

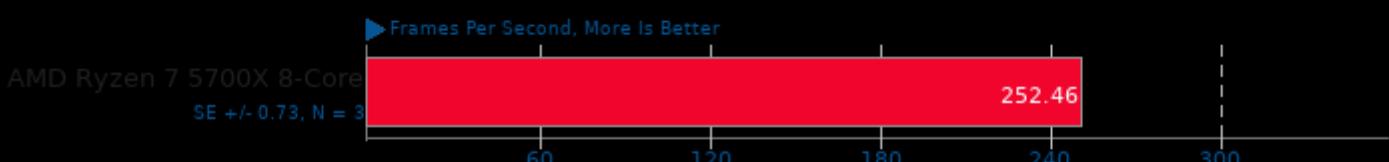
Tuning: 7 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-HEVC 1.5.0

Tuning: 10 - Input: Bosphorus 1080p



1. (CC) gcc options: -fPIE -fPIC -O3 -O2 -pie -rdynamic -lpthread -lrt

## SVT-VP9 0.3

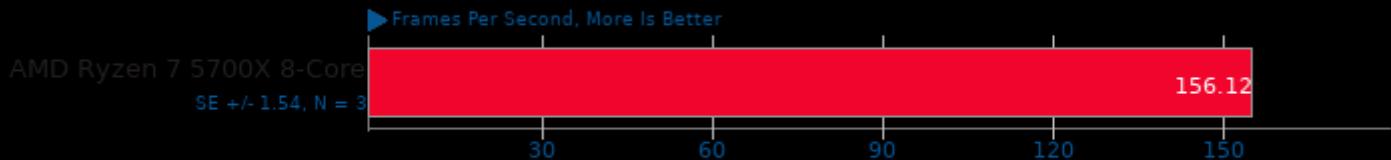
Tuning: VMAF Optimized - Input: Bosphorus 4K



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

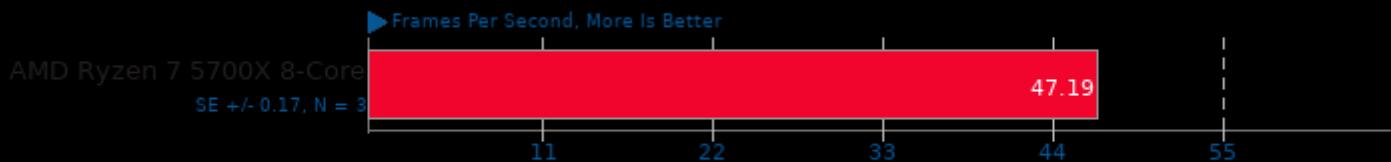
Tuning: VMAF Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

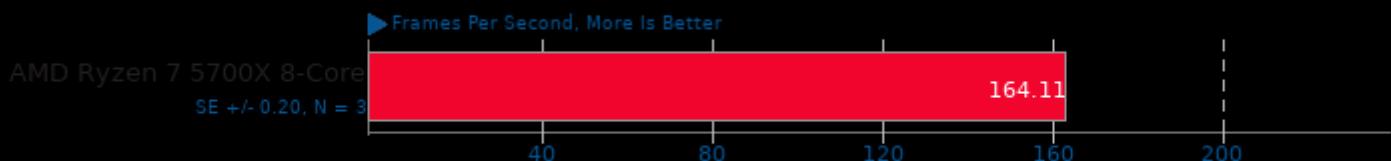
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 4K



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

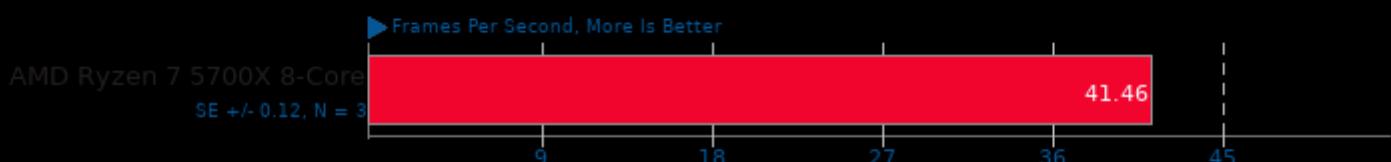
Tuning: PSNR/SSIM Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

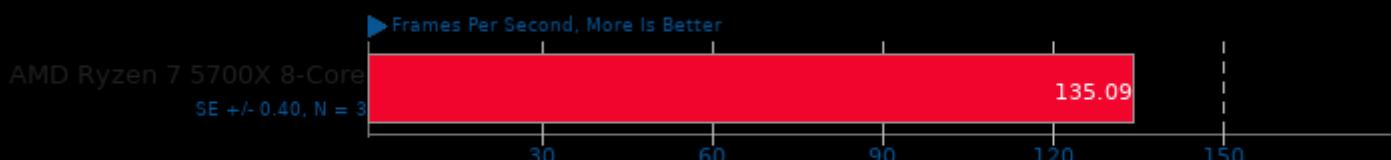
Tuning: Visual Quality Optimized - Input: Bosphorus 4K



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## SVT-VP9 0.3

Tuning: Visual Quality Optimized - Input: Bosphorus 1080p



1. (CC) gcc options: -O3 -fcommon -fPIE -fPIC -fvisibility=hidden -pie -rdynamic -lpthread -lrt -lm

## VP9 libvpx Encoding 1.10.0

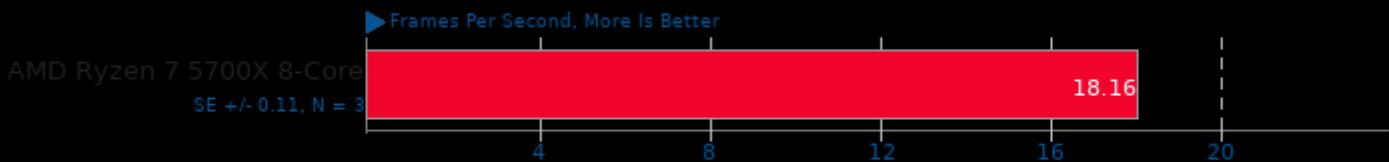
Speed: Speed 0 - Input: Bosphorus 4K



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## VP9 libvpx Encoding 1.10.0

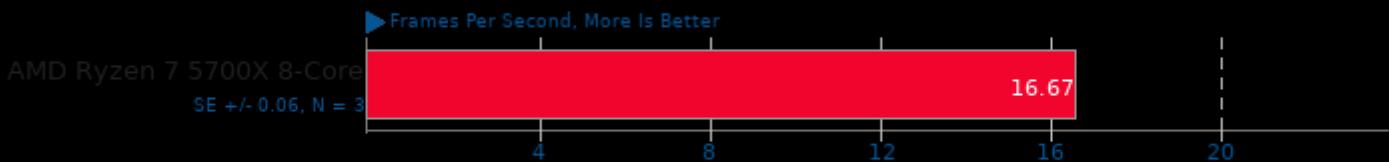
Speed: Speed 5 - Input: Bosphorus 4K



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## VP9 libvpx Encoding 1.10.0

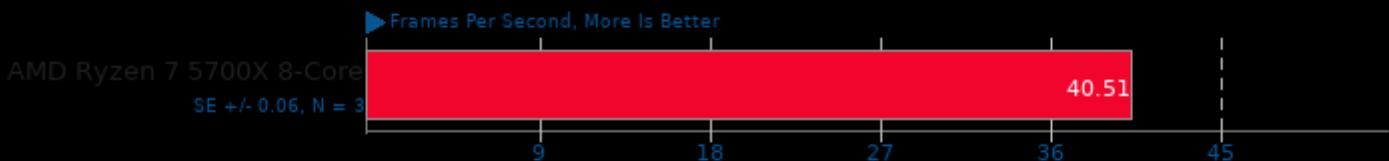
Speed: Speed 0 - Input: Bosphorus 1080p



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## VP9 libvpx Encoding 1.10.0

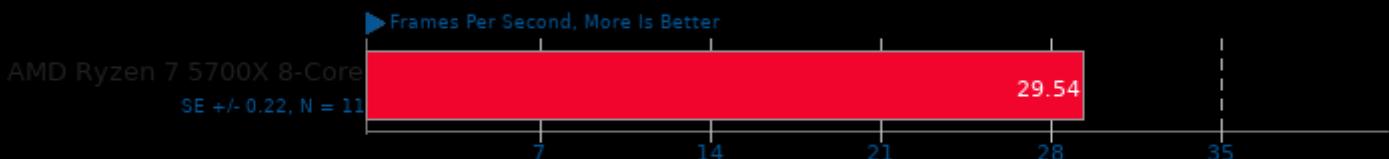
Speed: Speed 5 - Input: Bosphorus 1080p



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U\_FORTIFY\_SOURCE -std=gnu++11

## x264 2022-02-22

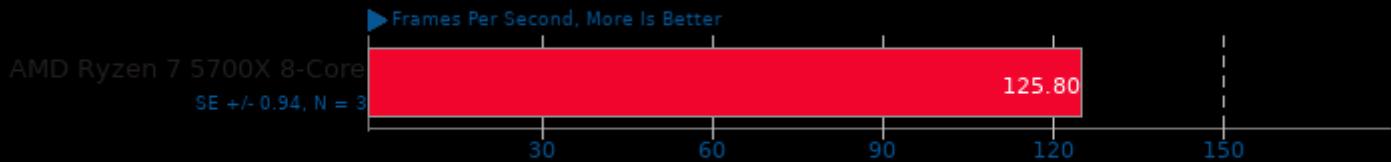
Video Input: Bosphorus 4K



1. (CC) gcc options: -ldl -lavformat -lavcodec -lavutil -lswscale -m64 -lm -lpthread -O3 -fno

## x264 2022-02-22

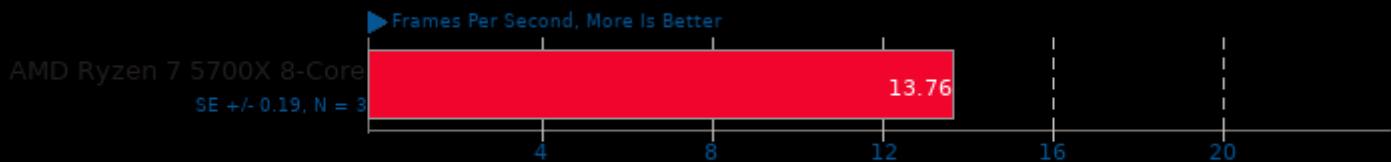
Video Input: Bosphorus 1080p



1. (CC) gcc options: -ldl -lavformat -lavcodec -lavutil -lswscale -m64 -lm -lpthread -O3 -fno

## x265 3.4

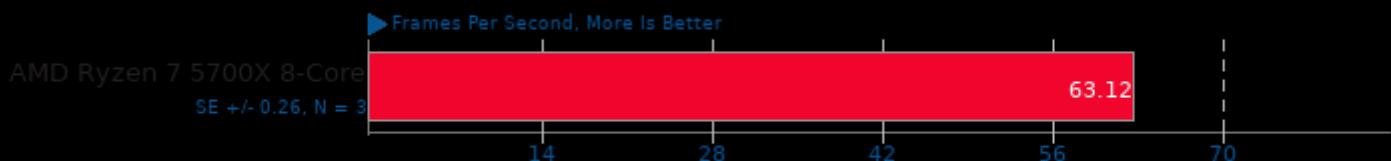
Video Input: Bosphorus 4K



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lt -ldl -lnuma

## x265 3.4

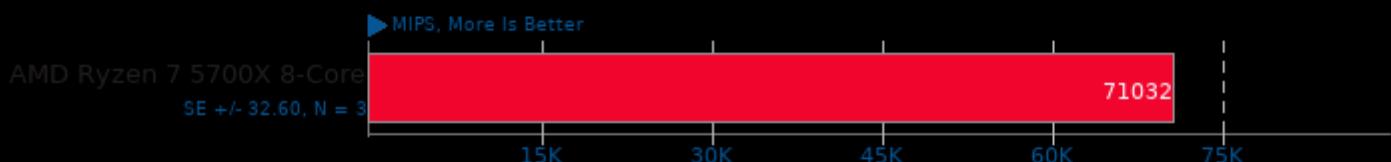
Video Input: Bosphorus 1080p



1. (CXX) g++ options: -O3 -rdynamic -lpthread -lt -ldl -lnuma

## 7-Zip Compression 22.01

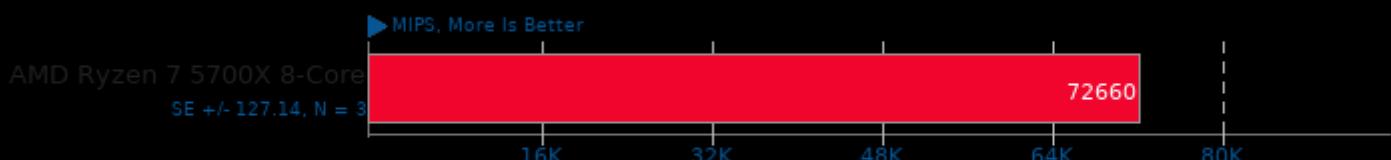
Test: Compression Rating



1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

## 7-Zip Compression 22.01

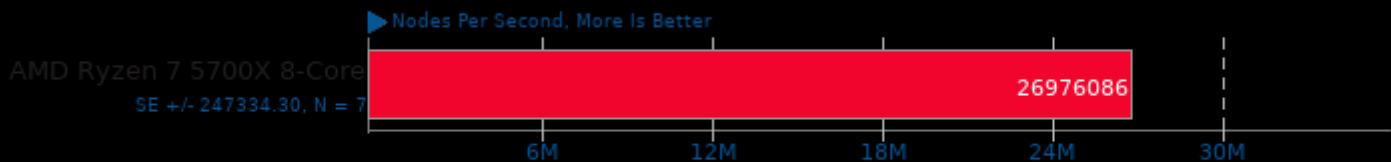
Test: Decompression Rating



1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC

## Stockfish 15

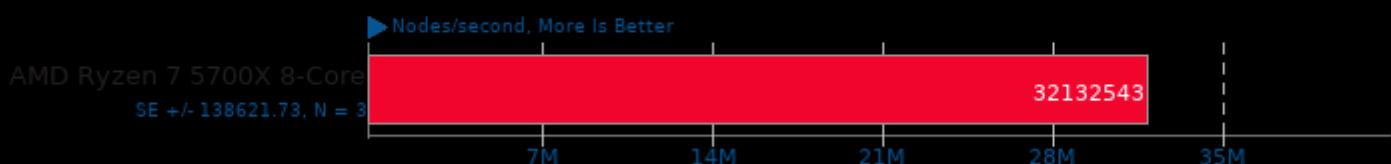
Total Time



1. (CXX) g++ options: -lgcov -m64 -lpthread -fno-exceptions -std=c++17 -fno-peel-loops -fno-tracer -pedantic -O3 -msse -msse3 -mpopcnt -mavx2 -msse

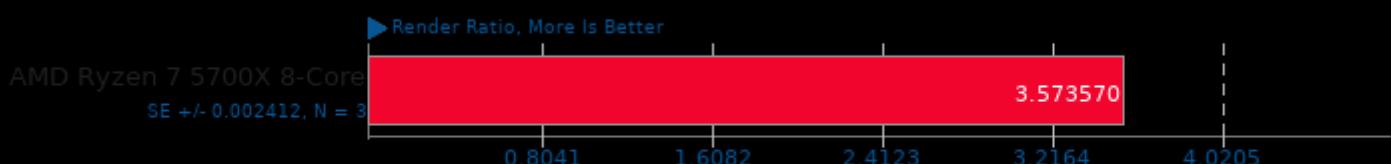
## asmFish 2018-07-23

1024 Hash Memory, 26 Depth



## Stargate Digital Audio Workstation 21.10.9

Sample Rate: 44100 - Buffer Size: 512



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

Sample Rate: 96000 - Buffer Size: 512



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

Sample Rate: 192000 - Buffer Size: 512



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

Sample Rate: 44100 - Buffer Size: 1024



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

Sample Rate: 480000 - Buffer Size: 512



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

Sample Rate: 96000 - Buffer Size: 1024



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

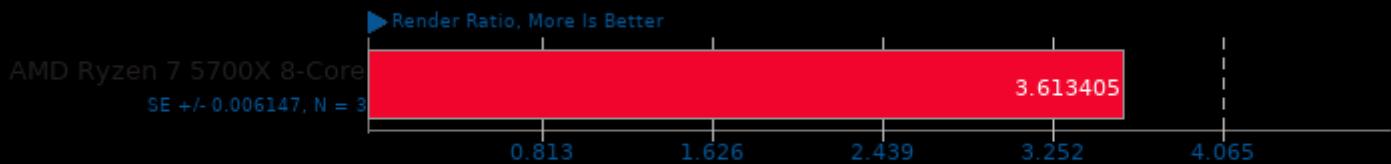
Sample Rate: 192000 - Buffer Size: 1024



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## Stargate Digital Audio Workstation 21.10.9

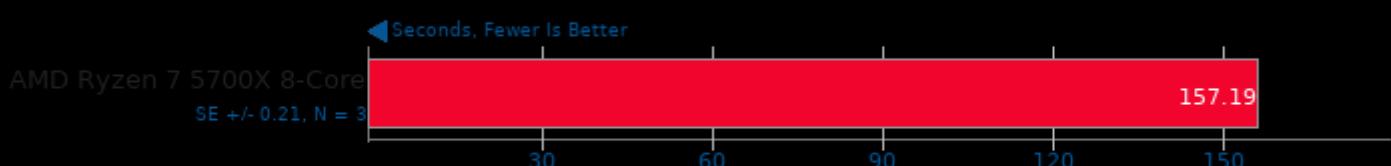
Sample Rate: 480000 - Buffer Size: 1024



1. (CXX) g++ options: -lpthread -lsndfile -lm -O3 -march=native -ffast-math -funroll-loops -fstrength-reduce -fstrict-aliasing -finline-functions

## libavif avifenc 0.11

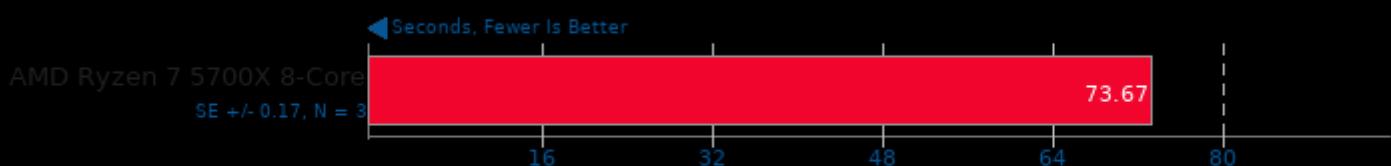
Encoder Speed: 0



1. (CXX) g++ options: -O3 -fPIC -lm

## libavif avifenc 0.11

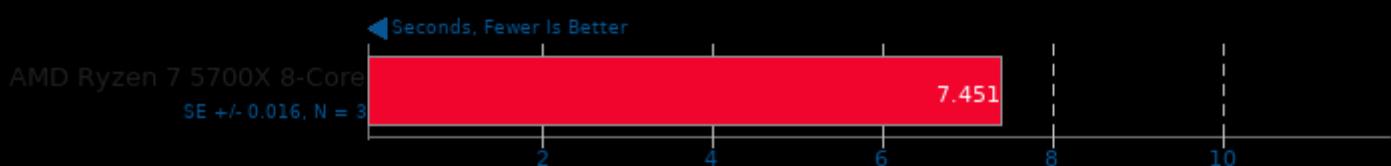
Encoder Speed: 2



1. (CXX) g++ options: -O3 -fPIC -lm

## libavif avifenc 0.11

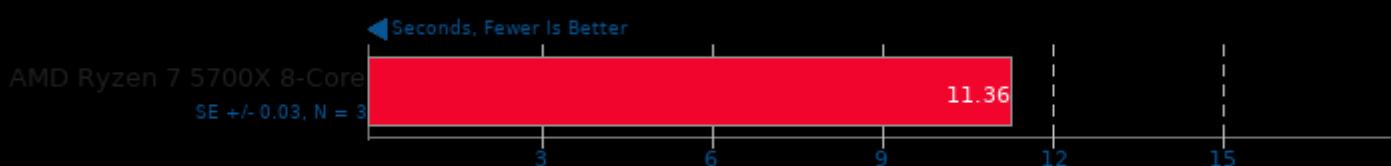
Encoder Speed: 6



1. (CXX) g++ options: -O3 -fPIC -lm

## libavif avifenc 0.11

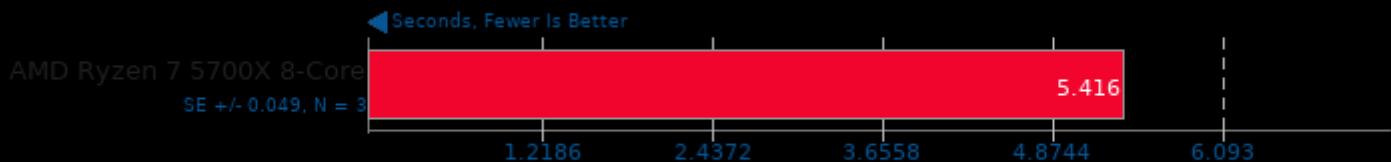
Encoder Speed: 6, Lossless



1. (CXX) g++ options: -O3 -fPIC -lm

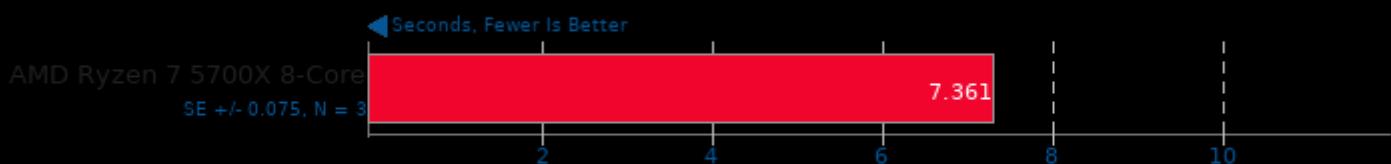
## libavif avifenc 0.11

Encoder Speed: 10, Lossless



## Parallel BZIP2 Compression 1.1.13

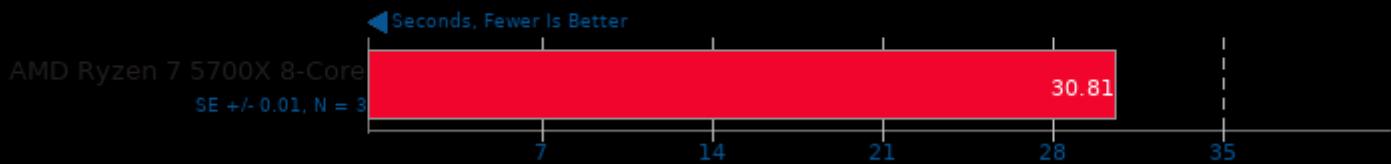
FreeBSD-13.0-RELEASE-amd64-memstick.img Compression



1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread

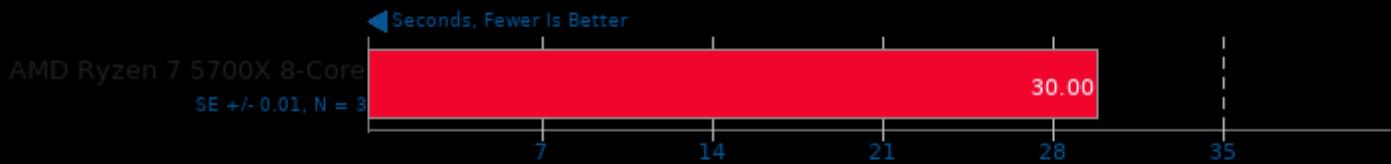
## Gzip Compression

Linux Source Tree Archiving To .tar.gz



## XZ Compression 5.2.4

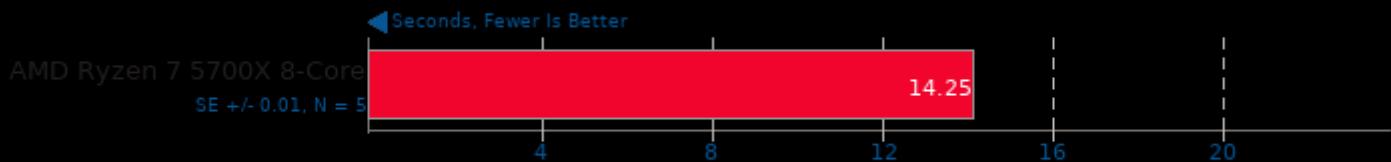
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9



1. (CC) gcc options: -fvisibility=hidden -O2

## FLAC Audio Encoding 1.4

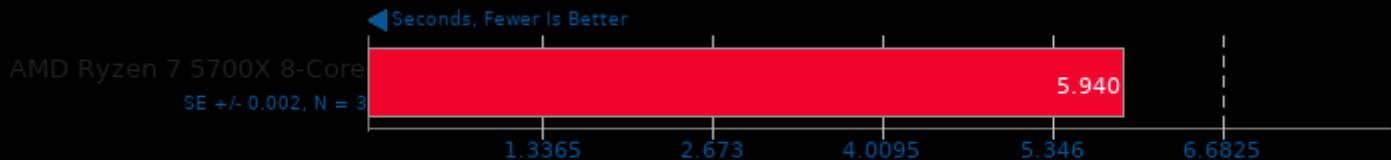
WAV To FLAC



1. (CXX) g++ options: -O3 -fvisibility=hidden -log -lm

## LAME MP3 Encoding 3.100

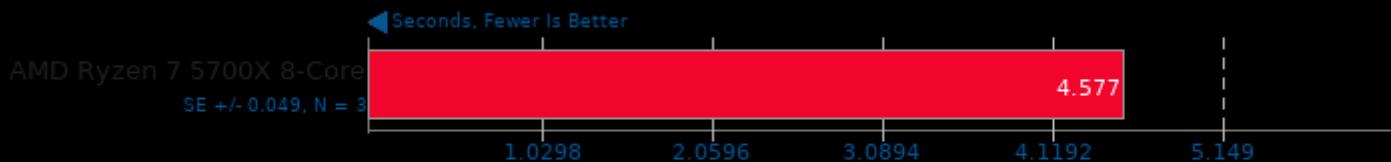
WAV To MP3



1. (CC) gcc options: -O3 -ffast-math -funroll-loops -fschedule-insns2 -fbranch-count-reg -fforce-addr -pipe -fincrusts -fim

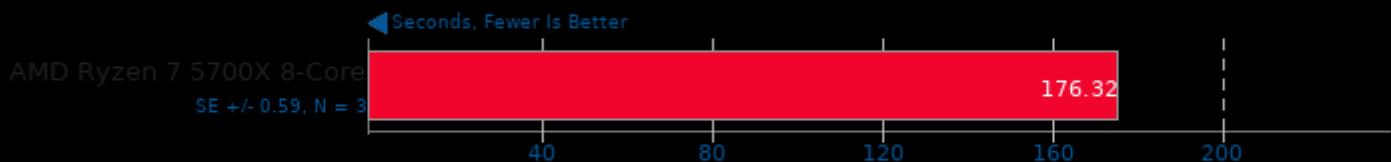
## FFmpeg 4.0.2

H.264 HD To NTSC DV



1. (CC) gcc options: -lavdevice -lavfilter -lavformat -lavcodec -lswresample -lswscale -lavutil -lXv -lX11 -lXext -lsm -lxcb -lasound -lSDL2 -lsndio -pthread -lt

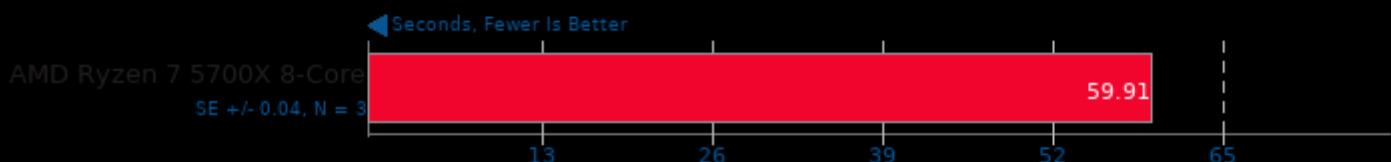
## Gcrypt Library 1.9



1. (CC) gcc options: -O2 -fvisibility=hidden -lgpg-error

## m-queens 1.2

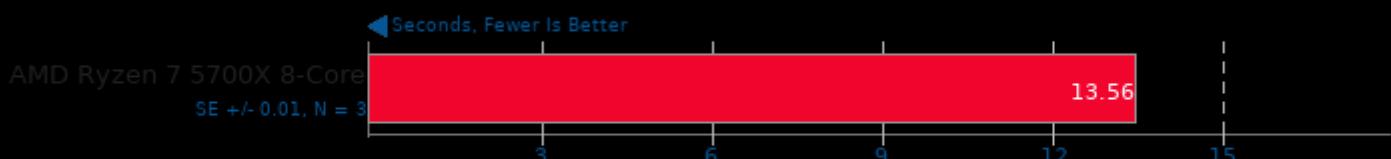
Time To Solve



1. (CXX) g++ options: -fopenmp -O2 -march=native

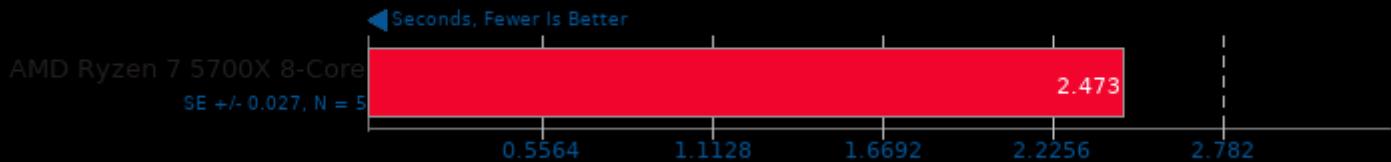
## N-Queens 1.0

Elapsed Time

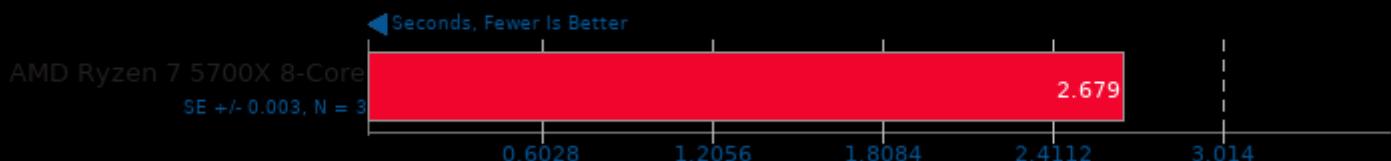


1. (CC) gcc options: -static -fopenmp -O3 -march=native

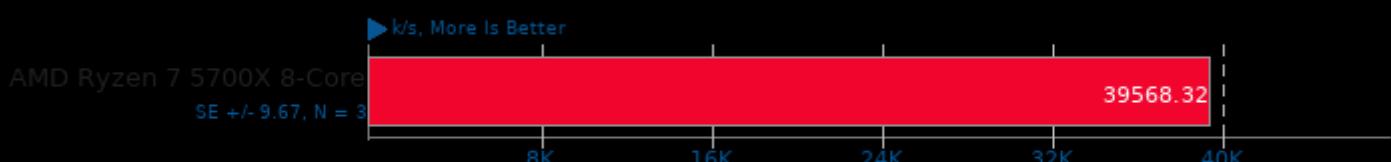
## System GZIP Decompression



## System XZ Decompression



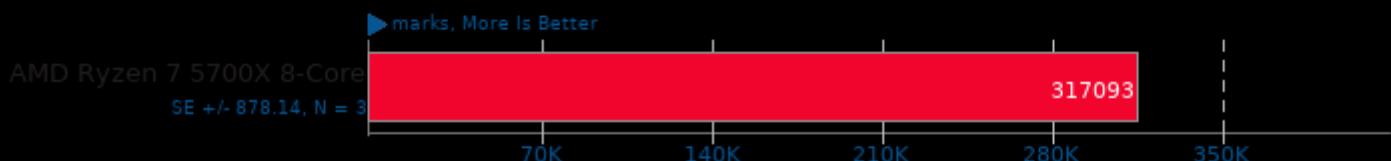
## Aircrack-ng 1.7



1. (CXX) g++ options: -std=gnu++17 -O3 -fvisibility=hidden -fcommon -rdynamic -lInl-3 -lInl-genl-3 -lpcre -sqlite3 -pthread -lz -lssl -lcrypto -lhwloc -ldl -

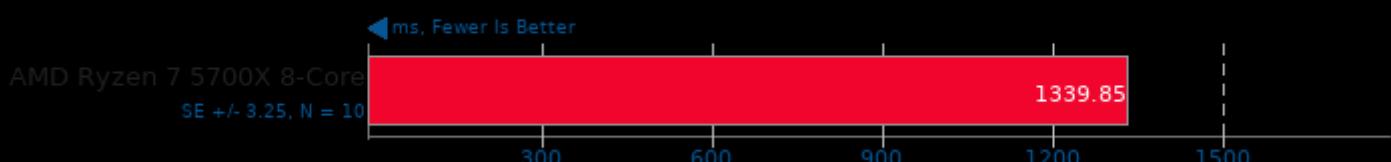
## SecureMark 1.0.4

Benchmark: SecureMark-TLS



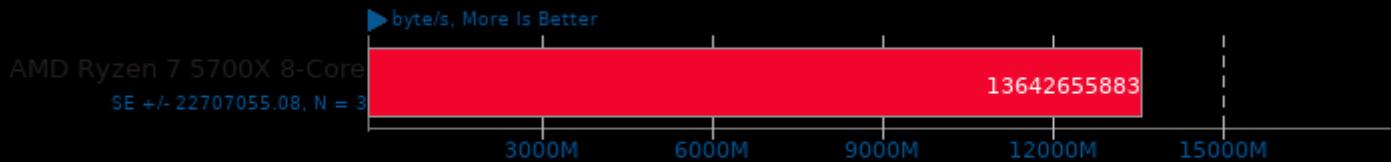
1. (CC) gcc options: -pedantic -O3

## System ZLIB Decompression 1.2.7



## OpenSSL 3.0

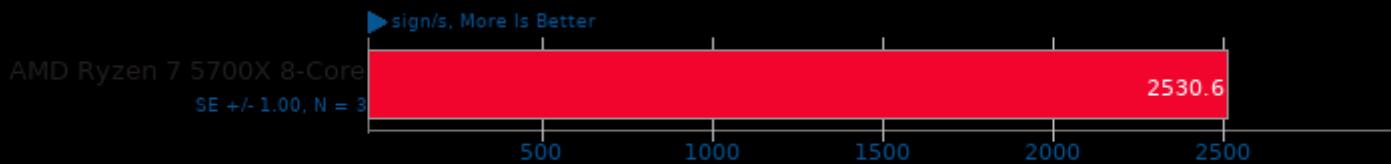
Algorithm: SHA256



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

## OpenSSL 3.0

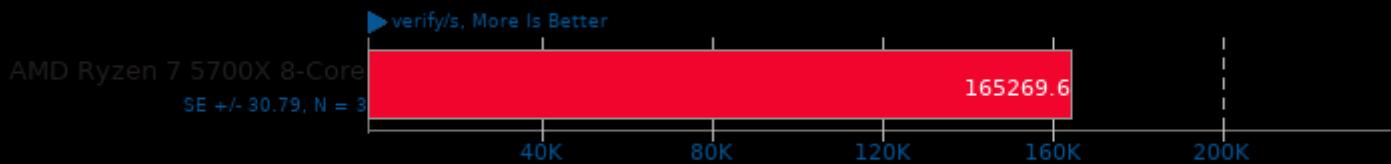
Algorithm: RSA4096



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

## OpenSSL 3.0

Algorithm: RSA4096



1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

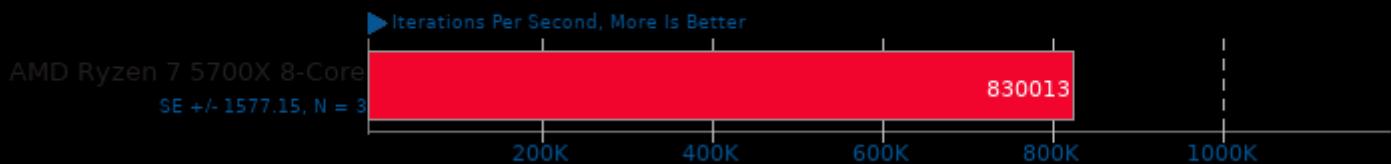
## Cryptsetup

PBKDF2-sha512



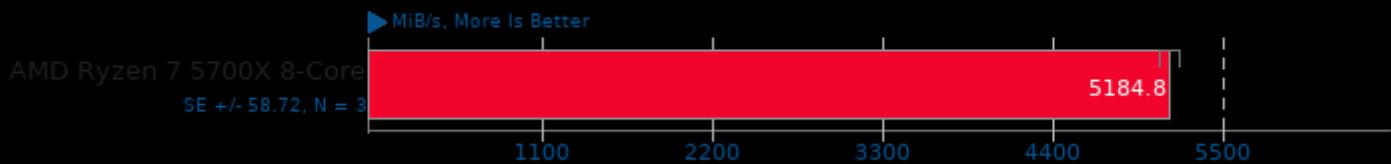
## Cryptsetup

PBKDF2-whirlpool



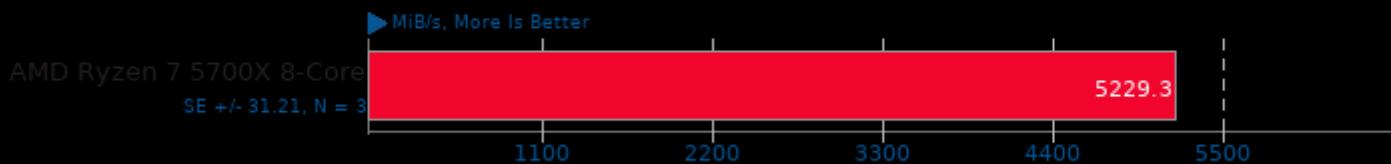
## Cryptsetup

AES-XTS 256b Encryption



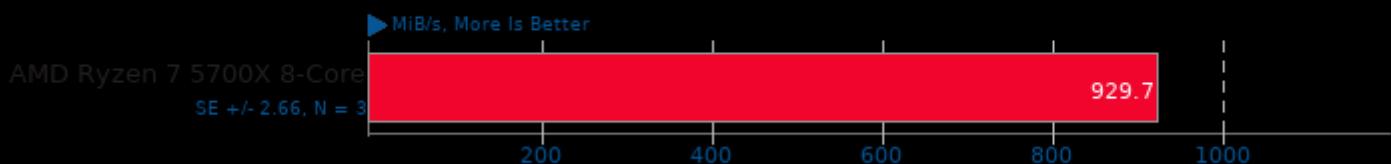
## Cryptsetup

AES-XTS 256b Decryption



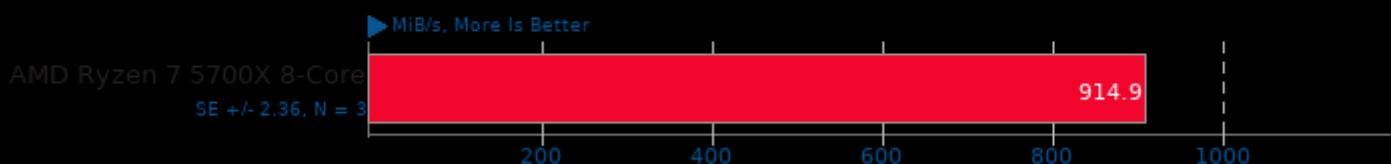
## Cryptsetup

Serpent-XTS 256b Encryption



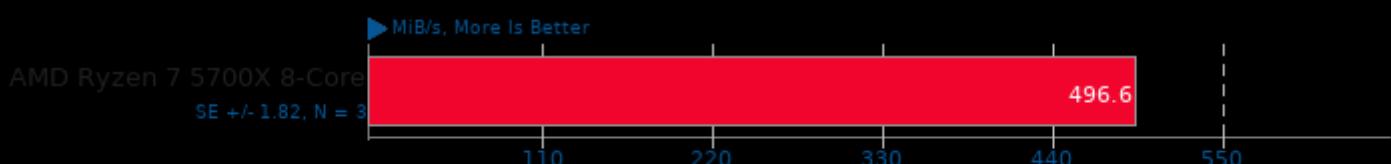
## Cryptsetup

Serpent-XTS 256b Decryption



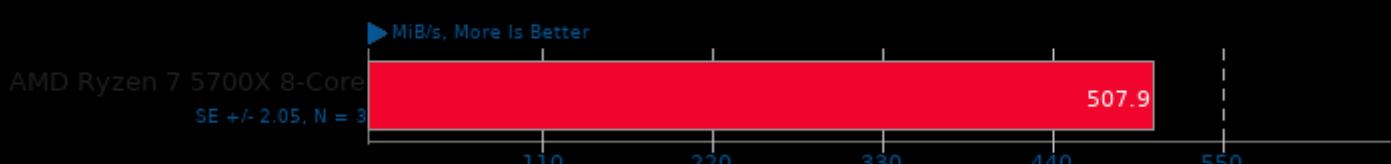
## Cryptsetup

Twofish-XTS 256b Encryption



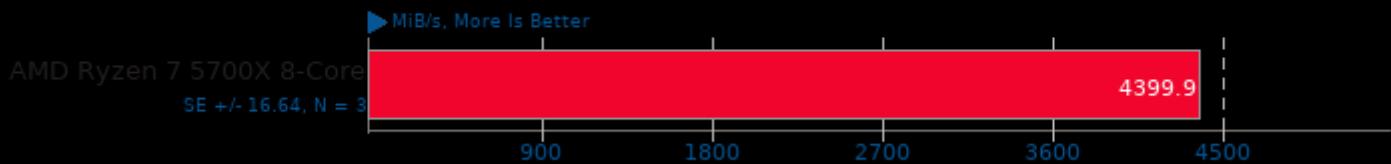
## Cryptsetup

Twofish-XTS 256b Decryption



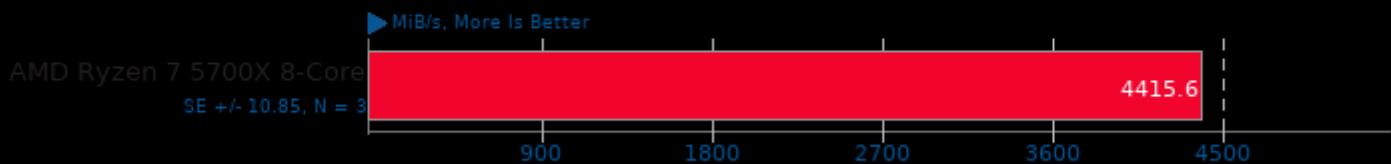
## Cryptsetup

AES-XTS 512b Encryption



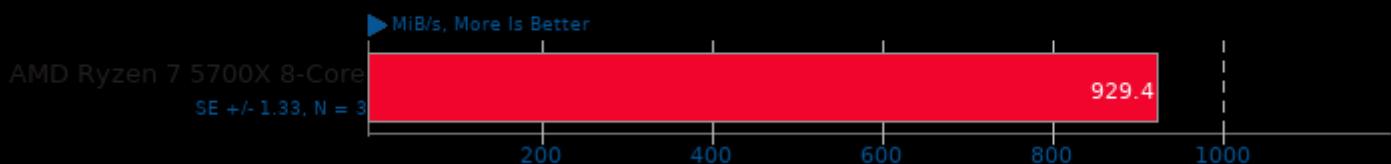
## Cryptsetup

AES-XTS 512b Decryption



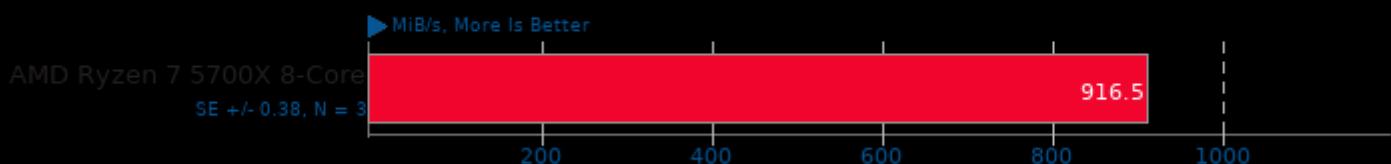
## Cryptsetup

Serpent-XTS 512b Encryption



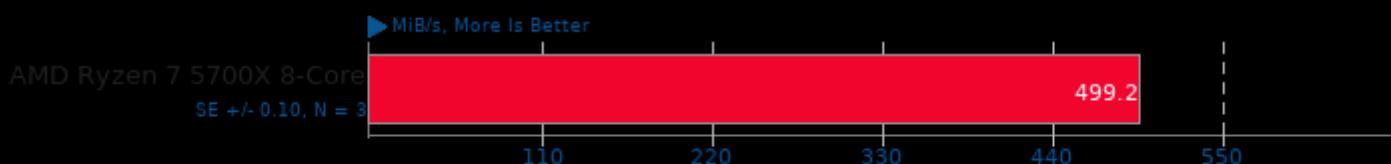
## Cryptsetup

Serpent-XTS 512b Decryption



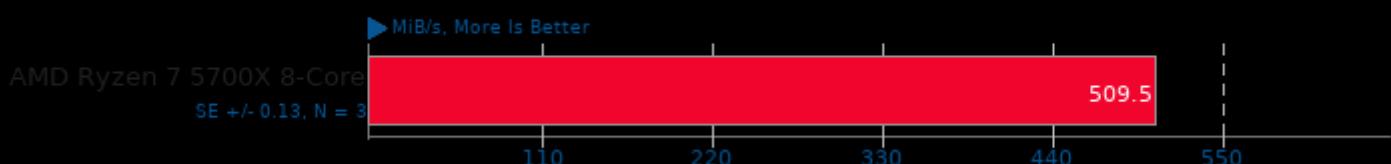
## Cryptsetup

Twofish-XTS 512b Encryption



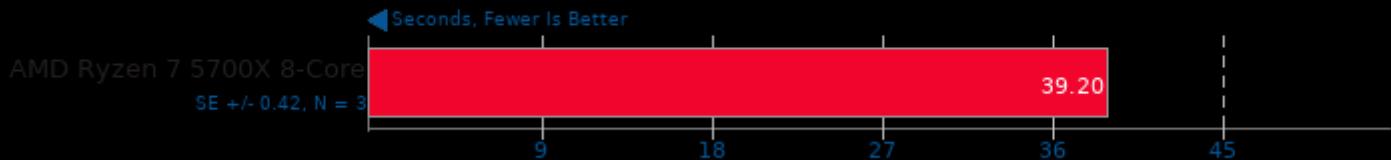
## Cryptsetup

Twofish-XTS 512b Decryption



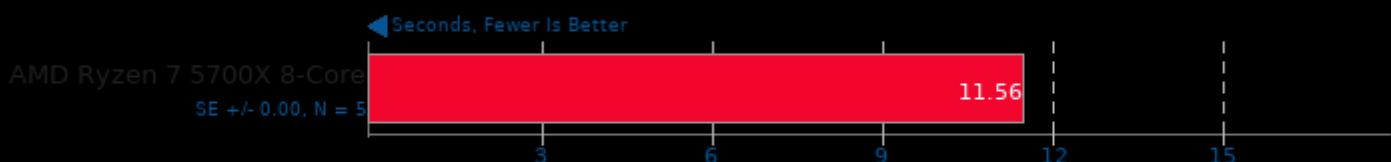
## RAR Compression 6.0.2

Linux Source Tree Archiving To RAR



## WavPack Audio Encoding 5.3

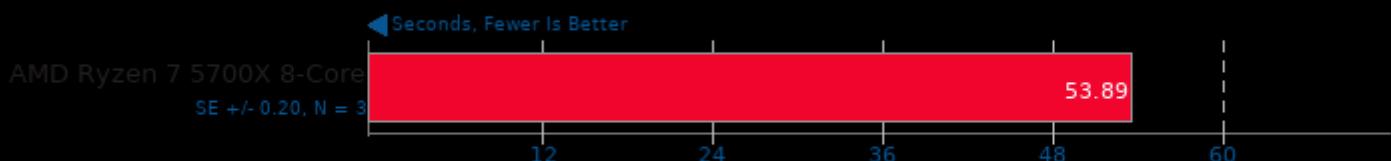
WAV To WavPack



1. (CXX) g++ options: -rdynamic

## GnuPG 2.2.27

2.7GB Sample File Encryption



1. (CC) gcc options: -O2

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