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Intel Core i7-2700K testing with a BIOSTAR B75MU3B v5.0 (4.6.5 BIOS) and Intel HD 3000 2GB on Ubuntu 21.04 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 48% of the tests.

Based on the geometric mean of all complete results, the fastest (A) was 1.002x the speed of the slowest (D). C was 0.999x the speed of A, B was 0.999x the speed of C, D was 0.999x the speed of B.

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

OpenCV (Test: Object Detection) at 1.248x
Facebook RocksDB (Test: Random Read) at 1.209x
PyHPC Benchmarks (Device: CPU - Backend: PyTorch - Project Size: 65536 - Benchmark: Equation of State) at 1.167x
Natron (Input: Spaceship) at 1.143x
OpenCV (Test: Features 2D) at 1.099x
Stress-NG (Test: CPU Cache) at 1.087x
Renaissance (Test: Apache Spark PageRank) at 1.085x
Stress-NG (Test: MMAP) at 1.077x
RAR Compression (Linux Source Tree Archiving To RAR) at 1.075x

AOM AV1 (Encoder Mode: Speed 10 Realtime - Input: Bosphorus 4K) at 1.071x.

Test Systems:

A

B

C

D

Processor: Intel Core i7-2700K @ 3.90GHz (4 Cores / 8 Threads), Motherboard: BIOSTAR B75MU3B v5.0 (4.6.5 BIOS), Chipset: Intel 2nd Generation Core DRAM, Memory: 8GB, Disk: 525GB Crucial CT525MX3, Graphics: Intel HD 3000 2GB (1350MHz), Audio: Realtek ALC662 rev1, Monitor: MX279, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 21.04, Kernel: 5.11.0-18-generic (x86_64), Desktop: GNOME Shell 3.38.4, Display Server: X Server 1.20.11, OpenGL: 3.3 Mesa 21.2.0-devel (git-849ab4e 2021-06-17 hirsute-oibaf-ppa), Vulkan: 1.1.180, Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/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-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_cpufreq schedutil - CPU Microcode: 0x2f - Thermald 2.4.3
Java Notes: OpenJDK Runtime Environment (build 11.0.11+9-Ubuntu-0ubuntu2)
Python Notes: Python 3.9.5
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + 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 generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	A	B	C	D
Stress-NG - MMAP (Bogo Ops/s)	**27.4**	26.94	**25.44**	27.02
Normalized	100%	98.32%	92.85%	98.61%
Stress-NG - NUMA (Bogo Ops/s)	68.51	**68.64**	67.11	**66.68**
Normalized	99.81%	100%	97.77%	97.14%
Stress-NG - MEMFD (Bogo Ops/s)	**191.67**	**188.7**	191.35	191.28
Normalized	100%	98.45%	99.83%	99.8%
Stress-NG - Atomic (Bogo Ops/s)	173669	**177173**	177078	**172211**
Normalized	98.02%	100%	99.95%	97.2%
Stress-NG - Crypto (Bogo Ops/s)	**524.24**	**525.48**	524.69	524.51
Normalized	99.76%	100%	99.85%	99.82%

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Stress-NG - Malloc (Bogo Ops/s)	20368354	**20295616**	**20415611**	20368874
Normalized	99.77%	99.41%	100%	99.77%
Stress-NG - Forking (Bogo Ops/s)	**19518**	19312	**19291**	19368
Normalized	100%	98.95%	98.84%	99.23%
Stress-NG - IO_uring (Bogo Ops/s)	**23446**	**22695**	23008	23188
Normalized	100%	96.8%	98.13%	98.9%
Stress-NG - SENDFILE (Bogo Ops/s)	43680	43576	**43766**	**43571**
Normalized	99.8%	99.56%	100%	99.55%
Stress-NG - CPU Cache (Bogo Ops/s)	123.93	**116.73**	**126.89**	121.8
Normalized	97.67%	91.99%	100%	95.99%
Stress-NG - CPU Stress (Bogo Ops/s)	**6396**	6326	**6304**	6305
Normalized	100%	98.9%	98.56%	98.57%
Stress-NG - Semaphores (Bogo	557291	**559343**	**554762**	558380
Normalized	99.63%	100%	99.18%	99.83%
Stress-NG - Matrix Math (Bogo Ops/s)	13340	13199	**13456**	**13166**
Normalized	99.14%	98.09%	100%	97.85%
Stress-NG - Vector Math (Bogo Ops/s)	**9445**	9443	9430	**9421**
Normalized	100%	99.98%	99.84%	99.74%
Stress-NG - Memory Copying (Bogo Ops/s)	**668.06**	666.63	667.38	**665.87**
Normalized	100%	99.79%	99.9%	99.67%
Stress-NG - Socket Activity (Bogo	2559	**2527**	**2562**	2550
Normalized	99.9%	98.66%	100%	99.56%
Stress-NG - Context Switching (Bogo Ops/s)	1015737	**1044321**	1022975	**1003793**
Normalized	97.26%	100%	97.96%	96.12%
Stress-NG - G.C.S.F (Bogo Ops/s)	**308158**	308108	**303136**	305423
Normalized	100%	99.98%	98.37%	99.11%
Stress-NG - G.Q.D.S (Bogo Ops/s)	46.13	**45.7**	**46.2**	46.13
Normalized	99.85%	98.92%	100%	99.85%
Stress-NG - S.V.M.P (Bogo Ops/s)	2518614	**2522133**	2518026	**2515206**
Normalized	99.86%	100%	99.84%	99.73%
OpenSSL - SHA256 (byte/s)	**838635470**	**837913030**	838477190	838284780
Normalized	100%	99.91%	99.98%	99.96%
dav1d - Chimera 1080p (FPS)	**189.03**	189.3	189.73	**189.94**
Normalized	99.52%	99.66%	99.89%	100%
dav1d - Summer Nature 4K (FPS)	47.29	**47.25**	47.4	**47.44**
Normalized	99.68%	99.6%	99.92%	100%
dav1d - S.N.1 (FPS)	**180.2**	180.55	**180.75**	180.45
Normalized	99.7%	99.89%	100%	99.83%
dav1d - C.1.1.b (FPS)	145.54	145.43	**145.69**	**145.37**
Normalized	99.9%	99.82%	100%	99.78%
Natron - Spaceship (FPS)	**0.7**	**0.7**	**0.8**	**0.7**
Normalized	87.5%	87.5%	100%	87.5%
yquake2 - OpenGL 1.x - 1920 x 1080 (FPS)	**186.3**	**187**	186.9	186.9
Normalized	99.63%	100%	99.95%	99.95%
yquake2 - OpenGL 3.x - 1920 x 1080 (FPS)	**139.1**	138.9	138.9	**138.4**
Normalized	100%	99.86%	99.86%	99.5%

yquake2 - Software CPU - 1920 x 1080 (FPS)	76	76.2	76.6	76.4
Normalized	99.22%	99.48%	100%	99.74%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)	0.02	0.02	0.02	0.02
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	0.84	0.84	0.84	0.84
AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	3.17	3.18	3.18	3.19
Normalized	99.37%	99.69%	99.69%	100%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	1.74	1.74	1.74	1.74
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	11.79	11.7	11.73	11.74
Normalized	100%	99.24%	99.49%	99.58%
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	16.64	16.32	16.35	16.52
Normalized	100%	98.08%	98.26%	99.28%
AOM AV1 - Speed 10 Realtime - Bosphorus 4K (FPS)	19.25	17.98	17.98	18.37
Normalized	100%	93.4%	93.4%	95.43%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p (FPS)	0.05	0.05	0.05	0.05
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS)	2.1	2.14	2.15	2.15
Normalized	97.67%	99.53%	100%	100%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)	2.95	2.95	2.94	2.95
Normalized	100%	100%	99.66%	100%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS)	5.5	5.49	5.49	5.49
Normalized	100%	99.82%	99.82%	99.82%
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)	40.35	40.4	40.45	40.31
Normalized	99.75%	99.88%	100%	99.65%
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)	48.44	48.51	48.63	48.43
Normalized	99.61%	99.75%	100%	99.59%
AOM AV1 - Speed 10 Realtime - Bosphorus 1080p (FPS)	58.21	58.18	58.38	58.32
Normalized	99.71%	99.66%	100%	99.9%
Kvazaar - Bosphorus 4K - Slow (FPS)	0.52	0.52	0.52	0.52
Kvazaar - Bosphorus 4K - Medium	0.51	0.51	0.51	0.51
Kvazaar - Bosphorus 1080p - Slow (FPS)	2.85	2.85	2.85	2.85
Kvazaar - Bosphorus 1080p - Medium (FPS)	2.84	2.84	2.84	2.84
Kvazaar - Bosphorus 4K - Very Fast (FPS)	1.25	1.25	1.25	1.25

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Kvazaar - Bosphorus 4K - Ultra Fast (FPS)	2.55	2.55	2.55	2.55
Kvazaar - Bosphorus 1080p - Very Fast (FPS)	5.9	5.9	5.9	5.9
Kvazaar - Bosphorus 1080p - Ultra Fast (FPS)	**11.53**	11.52	**11.51**	**11.51**
Normalized	100%	99.91%	99.83%	99.83%
rav1e - 1 (FPS)	**0.107**	**0.107**	**0.109**	**0.107**
Normalized	98.17%	98.17%	100%	98.17%
rav1e - 5 (FPS)	0.556	**0.559**	**0.555**	**0.555**
Normalized	99.46%	100%	99.28%	99.28%
rav1e - 6 (FPS)	**0.687**	**0.681**	0.686	0.683
Normalized	100%	99.13%	99.85%	99.42%
rav1e - 10 (FPS)	2.324	**2.311**	2.319	**2.329**
Normalized	99.79%	99.23%	99.57%	100%
simdjson - Kostya (GB/s)	**1.51**	**1.5**	**1.51**	**1.51**
Normalized	100%	99.34%	100%	100%
simdjson - LargeRand (GB/s)	0.63	0.63	0.63	0.63
simdjson - PartialTweets (GB/s)	1.96	1.96	1.96	1.96
simdjson - DistinctUserID (GB/s)	**2.12**	**2.12**	**2.12**	**2.13**
Normalized	99.53%	99.53%	99.53%	100%
OpenVKL - vklBenchmark ISPC (Items / Sec)	**17**	**16**	**17**	**16**
Normalized	100%	94.12%	100%	94.12%
OpenVKL - v.S (Items / Sec)	9	9	9	9
Cpuminer-Opt - Magi (kH/s)	62.86	**62.98**	**62.78**	62.84
Normalized	99.81%	100%	99.68%	99.78%
Cpuminer-Opt - x25x (kH/s)	59.3	**57.69**	**57.69**	**59.61**
Normalized	99.48%	96.78%	96.78%	100%
Cpuminer-Opt - Deepcoin (kH/s)	2068	**2118**	**2065**	2075
Normalized	97.61%	100%	97.5%	97.94%
Cpuminer-Opt - Ringcoin (kH/s)	**461.99**	**468.18**	462.22	466.04
Normalized	98.68%	100%	98.73%	99.54%
Cpuminer-Opt - Blake-2 S (kH/s)	57000	**54790**	56660	**57990**
Normalized	98.29%	94.48%	97.71%	100%
Cpuminer-Opt - Garlicoin (kH/s)	382.43	**381.45**	381.93	**383.07**
Normalized	99.83%	99.58%	99.7%	100%
Cpuminer-Opt - Skeincoin (kH/s)	**3032**	3020	3018	**3013**
Normalized	100%	99.62%	99.55%	99.39%
Cpuminer-Opt - Myriad-Groestl (kH/s)	**2515**	2527	**2528**	2519
Normalized	99.49%	99.95%	100%	99.63%
Cpuminer-Opt - LBC, LBRY Credits (kH/s)	1361	**1361**	**1331**	1331
Normalized	99.99%	100%	97.76%	97.8%
Cpuminer-Opt - Q.S.2.P (kH/s)	9441	**9423**	**9463**	9460
Normalized	99.77%	99.58%	100%	99.97%
Cpuminer-Opt - T.S.2.O (kH/s)	13480	13480	**13190**	**13490**
Normalized	99.93%	99.93%	97.78%	100%
C-Blosc - blosclz (MB/s)	5664	5637	**5669**	**5611**
Normalized	99.91%	99.43%	100%	98.98%

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Zstd Compression - 3 - Compression Speed (MB/s)	**788.6**	**833.3**	825	833.1
Normalized	94.64%	100%	99%	99.98%
Zstd Compression - 3 - D.S (MB/s)	2041	**2006**	**2045**	2043
Normalized	99.8%	98.12%	100%	99.92%
Zstd Compression - 8 - Compression Speed (MB/s)	**139.7**	140.8	**140.9**	140.4
Normalized	99.15%	99.93%	100%	99.65%
Zstd Compression - 8 - D.S (MB/s)	2110	**2113**	2110	**2085**
Normalized	99.86%	100%	99.9%	98.7%
Zstd Compression - 19 - Compression Speed (MB/s)	**12.6**	**12.5**	**12.6**	**12.6**
Normalized	100%	99.21%	100%	100%
Zstd Compression - 19 - D.S (MB/s)	1876	**1878**	**1859**	1872
Normalized	99.89%	100%	98.99%	99.71%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	155.7	156.3	**156.6**	**154.3**
Normalized	99.43%	99.81%	100%	98.53%
Zstd Compression - 3, Long Mode - D.S (MB/s)	2182	2134	**2133**	**2182**
Normalized	100%	97.81%	97.74%	100%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	**154.9**	**163.7**	161.4	159.7
Normalized	94.62%	100%	98.59%	97.56%
Zstd Compression - 8, Long Mode - D.S (MB/s)	2258	2262	**2263**	**2252**
Normalized	99.77%	99.95%	100%	99.54%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	**11.5**	**10.9**	**10.9**	**10.9**
Normalized	100%	94.78%	94.78%	94.78%
Zstd Compression - 19, Long Mode - D.S (MB/s)	**1952**	1955	**1959**	1957
Normalized	99.64%	99.81%	100%	99.89%
JPEG XL libjxl - PNG - 5 (MP/s)	**9.77**	**9.94**	9.81	**9.77**
Normalized	98.29%	100%	98.69%	98.29%
JPEG XL libjxl - PNG - 7 (MP/s)	**3.58**	3.6	**3.61**	3.59
Normalized	99.17%	99.72%	100%	99.45%
JPEG XL libjxl - PNG - 8 (MP/s)	0.42	0.42	0.42	0.42
JPEG XL libjxl - JPEG - 5 (MP/s)	43.11	**42.89**	**43.21**	43.18
Normalized	99.77%	99.26%	100%	99.93%
JPEG XL libjxl - JPEG - 7 (MP/s)	42.84	**42.39**	42.75	**43.16**
Normalized	99.26%	98.22%	99.05%	100%
JPEG XL libjxl - JPEG - 8 (MP/s)	16.85	**16.7**	16.82	**16.92**
Normalized	99.59%	98.7%	99.41%	100%
JPEG XL Decoding libjxl - 1 (MP/s)	24.62	24.52	**24.63**	**24.36**
Normalized	99.96%	99.55%	100%	98.9%
JPEG XL Decoding libjxl - All (MP/s)	73.3	**72.33**	73.38	**73.48**
Normalized	99.76%	98.43%	99.86%	100%
LeelaChessZero - BLAS (Nodes/s)	**254**	**244**	245	248
Normalized	100%	96.06%	96.46%	97.64%
LeelaChessZero - Eigen (Nodes/s)	262	**267**	**261**	266
Normalized	98.13%	100%	97.75%	99.63%

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Facebook RocksDB - Rand Fill (Op/s)	**294054**	290610	290569	**290308**
Normalized	100%	98.83%	98.81%	98.73%
Facebook RocksDB - Rand Read	13032696	**14686561**	13949632	**12144569**
Normalized	88.74%	100%	94.98%	82.69%
Facebook RocksDB - Update Rand (Op/s)	131452	130747	**129716**	**132231**
Normalized	99.41%	98.88%	98.1%	100%
Facebook RocksDB - Seq Fill (Op/s)	**342632**	**338120**	340274	338458
Normalized	100%	98.68%	99.31%	98.78%
Facebook RocksDB - Rand Fill Sync (Op/s)	**2102**	**2054**	2090	2077
Normalized	100%	97.72%	99.43%	98.81%
Facebook RocksDB - Read While Writing (Op/s)	**638829**	648768	639202	**650415**
Normalized	98.22%	99.75%	98.28%	100%
Facebook RocksDB - R.R.W.R (Op/s)	471819	472292	**453940**	**473091**
Normalized	99.73%	99.83%	95.95%	100%
nginx - 1 (Reqs/sec)	25690	25685	**25296**	**26446**
Normalized	97.14%	97.12%	95.65%	100%
nginx - 20 (Reqs/sec)	**154057**	153871	153602	**152579**
Normalized	100%	99.88%	99.7%	99.04%
nginx - 100 (Reqs/sec)	**150189**	149683	149676	**149243**
Normalized	100%	99.66%	99.66%	99.37%
nginx - 200 (Reqs/sec)	**141829**	146861	**146894**	146587
Normalized	96.55%	99.98%	100%	99.79%
nginx - 500 (Reqs/sec)	143588	**143590**	143518	**143453**
Normalized	100%	100%	99.95%	99.9%
nginx - 1000 (Reqs/sec)	**134795**	136665	136546	**136792**
Normalized	98.54%	99.91%	99.82%	100%
Apache HTTP Server - 1 (Reqs/sec)	5603	**5778**	**5506**	
Normalized	96.97%	100%	95.29%	
Apache HTTP Server - 20 (Reqs/sec)	**27379**	**26981**	27018	
Normalized	100%	98.55%	98.68%	
Apache HTTP Server - 100 (Reqs/sec)	**26301**	**26726**	26626	
Normalized	98.41%	100%	99.63%	
Apache HTTP Server - 200 (Reqs/sec)	**27212**	**27098**	27204	
Normalized	100%	99.58%	99.97%	
Apache HTTP Server - 500 (Reqs/sec)	**24247**	**24497**		
Normalized	98.98%	100%		
Apache HTTP Server - 1000	**24143**	**24203**		
Normalized	99.75%	100%		
OpenSSL - RSA4096 (sign/s)	496.2	496.3	**496.6**	**495.7**
Normalized	99.92%	99.94%	100%	99.82%
OpenSSL (sign/s)	496.6	**496.9**	496.7	**496.2**
Normalized	99.94%	100%	99.96%	99.86%
OpenSSL - RSA4096 (verify/s)	**32468**	32481	**32499**	32478
Normalized	99.91%	99.95%	100%	99.94%
OpenSSL (verify/s)	**32421**	**32377**	32388	32406
Normalized	100%	99.86%	99.9%	99.95%
Google SynthMark - VoiceMark_100 (Voices)	**478.275**	478.094	478.082	**478.075**
Normalized	100%	99.96%	99.96%	99.96%

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Renaissance - Scala Dotty (ms)	1715	**1725**	**1675**	1700
Normalized	97.69%	97.14%	100%	98.55%
Renaissance - Rand Forest (ms)	1116	1109	**1093**	**1122**
Normalized	97.94%	98.56%	100%	97.35%
Renaissance - ALS Movie Lens (ms)	12515	**12518**	12484	**12415**
Normalized	99.2%	99.18%	99.44%	100%
Renaissance - Apache Spark ALS	**5368**	5396	**5510**	5389
Normalized	100%	99.5%	97.43%	99.61%
Renaissance - Apache Spark Bayes (ms)	14735	**14549**	15359	**15364**
Normalized	98.74%	100%	94.73%	94.69%
Renaissance - Savina Reactors.IO	**15341**	14994	**14958**	15163
Normalized	97.51%	99.76%	100%	98.65%
Renaissance - A.S.P (ms)	6403	**6277**	6298	**6811**
Normalized	98.04%	100%	99.67%	92.16%
Renaissance - F.H.R (ms)	4052	**4031**	**4109**	4109
Normalized	99.47%	100%	98.08%	98.09%
Renaissance - I.M.D.S (ms)	**5930**	6030	6042	**6067**
Normalized	100%	98.34%	98.14%	97.74%
Renaissance - A.U.C.T (ms)	**17279**	**17854**	17358	17373
Normalized	100%	96.78%	99.55%	99.46%
Renaissance - G.A.U.J.F (ms)	1915	**1917**	1905	**1893**
Normalized	98.87%	98.79%	99.39%	100%
NCNN - CPU - mobilenet (ms)	**50.59**	**51.27**	50.92	51.19
Normalized	100%	98.67%	99.35%	98.83%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	13.86	14.12	**14.32**	13.89
Normalized	99.35%	97.52%	96.16%	99.14%
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	11.99	12.16	**12.45**	12.06
Normalized	99.83%	98.44%	96.14%	99.25%
NCNN - CPU - shufflenet-v2 (ms)	9.42	**9.38**	**9.68**	9.47
Normalized	99.58%	100%	96.9%	99.05%
NCNN - CPU - mnasnet (ms)	**12.27**	**12.11**	12.25	12.15
Normalized	98.7%	100%	98.86%	99.67%
NCNN - CPU - efficientnet-b0 (ms)	20.5	**21.26**	20.65	**20.37**
Normalized	99.37%	95.81%	98.64%	100%
NCNN - CPU - blazeface (ms)	3.82	**3.62**	**3.79**	3.7
Normalized	94.76%	100%	95.51%	97.84%
NCNN - CPU - googlenet (ms)	43.89	**43.73**	**44.32**	44.36
Normalized	99.64%	100%	98.67%	98.58%
NCNN - CPU - vgg16 (ms)	**227.86**	228.07	227.96	**228.17**
Normalized	100%	99.91%	99.96%	99.86%
NCNN - CPU - resnet18 (ms)	**45.9**	45.95	**46.13**	45.97
Normalized	100%	99.89%	99.5%	99.85%
NCNN - CPU - alexnet (ms)	35.77	**35.73**	**35.84**	35.82
Normalized	99.89%	100%	99.69%	99.75%
NCNN - CPU - resnet50 (ms)	**89.62**	**94.89**	90.01	89.77
Normalized	100%	94.45%	99.57%	99.83%
NCNN - CPU - yolov4-tiny (ms)	**79.96**	80.16	80.26	**80.27**
Normalized	100%	99.75%	99.63%	99.61%
NCNN - CPU - squeezenet_ssd (ms)	50.2	50.2	**50.35**	**50.46**
Normalized	99.72%	99.72%	99.42%	99.21%
NCNN - CPU - regnety_400m (ms)	30.3	30.12	**29.65**	29.76
Normalized	97.85%	98.44%	100%	99.63%

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OpenCV - Features 2D (ms)	285721	260037		272354
Normalized	91.01%	100%		95.48%
OpenCV - Object Detection (ms)	80290			100215
Normalized	100%			80.12%
OpenCV - DNN - D.N.N (ms)	42592			42975
Normalized	100%			99.11%
Timed Linux Kernel Compilation - Time To Compile (sec)	312.651	313.688	313.41	313.435
Normalized	100%	99.67%	99.76%	99.75%
Timed LLVM Compilation - Ninja (sec)	2471	2471	2474	2472
Normalized	99.99%	100%	99.86%	99.97%
Timed LLVM Compilation - Unix Makefiles (sec)	2498	2508	2516	2522
Normalized	100%	99.57%	99.28%	99.04%
YafaRay - T.T.F.S.S (sec)	479.466	479.881	480.169	479.313
Normalized	99.97%	99.88%	99.82%	100%
FLAC Audio Encoding - WAV To FLAC (sec)	27.952	28.177	28.193	28.169
Normalized	100%	99.2%	99.15%	99.23%
Tachyon - Total Time (sec)	385.9141	386.0947	384.4016	385.6897
Normalized	99.61%	99.56%	100%	99.67%
RAR Compression - L.S.T.A.T.R (sec)	85.635	90.601		92.092
Normalized	100%	94.52%		92.99%
PyHPC Benchmarks - CPU - JAX - 16384 - Equation of State (sec)	0.001	0.001		0.001
PyHPC Benchmarks - CPU - JAX - 16384 - Isoneutral Mixing (sec)	0.006	0.006		0.006
PyHPC Benchmarks - CPU - JAX - 65536 - Equation of State (sec)	0.002	0.002		0.002
PyHPC Benchmarks - CPU - JAX - 65536 - Isoneutral Mixing (sec)	0.029	0.028		0.028
Normalized	96.55%	100%		100%
PyHPC Benchmarks - CPU - JAX - 262144 - Equation of State (sec)	0.008	0.008		0.008
PyHPC Benchmarks - CPU - JAX - 262144 - Isoneutral Mixing (sec)	0.089	0.095		0.094
Normalized	100%	93.68%		94.68%
PyHPC Benchmarks - CPU - JAX - 1048576 - Equation of State (sec)	0.032	0.032		0.032
PyHPC Benchmarks - CPU - JAX - 1048576 - Isoneutral Mixing (sec)	0.355	0.366		0.356
Normalized	100%	96.99%		99.72%
PyHPC Benchmarks - CPU - JAX - 4194304 - Equation of State (sec)	0.125	0.126		0.126
Normalized	100%	99.21%		99.21%
PyHPC Benchmarks - CPU - JAX - 4194304 - Isoneutral Mixing (sec)	1.559	1.57		1.563
Normalized	100%	99.3%		99.74%
PyHPC Benchmarks - CPU - Numba - 16384 - Equation of State (sec)	0.003	0.003		0.003

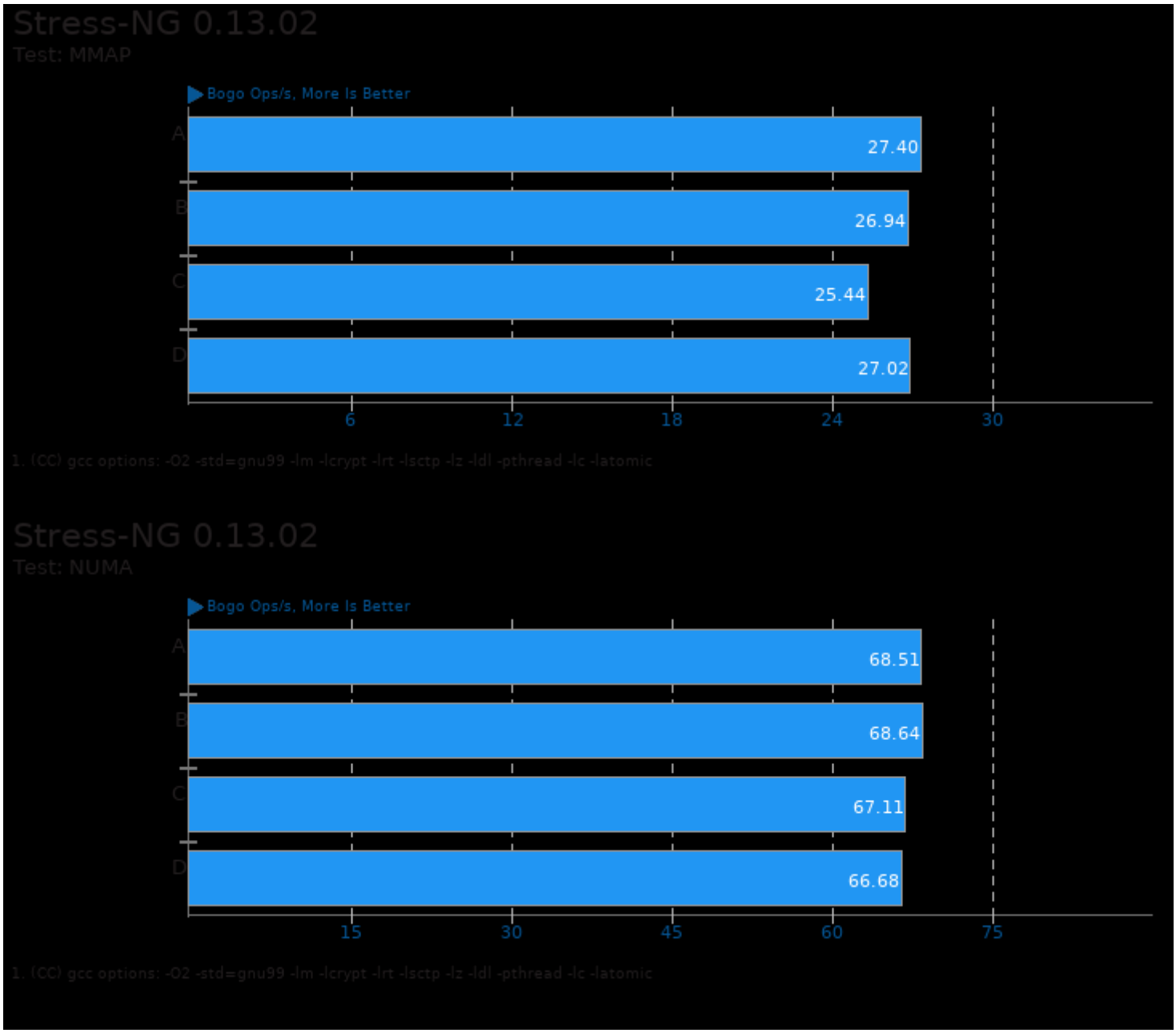
PyHPC Benchmarks - CPU - Numba - 16384 - Isoneutral Mixing (sec)	0.007	0.007	0.007
PyHPC Benchmarks - CPU - Numba - 65536 - Equation of State (sec)	0.01	0.01	0.01
PyHPC Benchmarks - CPU - Numba - 65536 - Isoneutral Mixing (sec)	0.031	0.031	0.031
PyHPC Benchmarks - CPU - Numpy - 16384 - Equation of State (sec)	0.007	0.007	0.007
PyHPC Benchmarks - CPU - Numpy - 16384 - Isoneutral Mixing (sec)	0.014	0.014	0.014
PyHPC Benchmarks - CPU - Numpy - 65536 - Equation of State (sec)	0.031	0.031	0.031
PyHPC Benchmarks - CPU - Numpy - 65536 - Isoneutral Mixing (sec)	0.06	0.06	0.06
PyHPC Benchmarks - CPU - Aesara - 16384 - Equation of State (sec)	0.005	0.005	0.005
PyHPC Benchmarks - CPU - Aesara - 16384 - Isoneutral Mixing (sec)	0.009	0.009	0.009
PyHPC Benchmarks - CPU - Aesara - 65536 - Equation of State (sec)	0.019	0.019	0.019
PyHPC Benchmarks - CPU - Aesara - 65536 - Isoneutral Mixing (sec)	0.039	0.038	0.038
Normalized	97.44%	100%	100%
PyHPC Benchmarks - CPU - Numba - 262144 - Equation of State (sec)	0.036	0.036	0.037
Normalized	100%	100%	97.3%
PyHPC Benchmarks - CPU - Numba - 262144 - Isoneutral Mixing (sec)	0.118	0.117	0.117
Normalized	99.15%	100%	100%
PyHPC Benchmarks - CPU - Numpy - 262144 - Equation of State (sec)	0.124	0.124	0.124
PyHPC Benchmarks - CPU - Numpy - 262144 - Isoneutral Mixing (sec)	0.234	0.233	0.233
Normalized	99.57%	100%	100%
PyHPC Benchmarks - CPU - Aesara - 262144 - Equation of State (sec)	0.068	0.068	0.067
Normalized	98.53%	98.53%	100%
PyHPC Benchmarks - CPU - Aesara - 262144 - Isoneutral Mixing (sec)	0.157	0.157	0.157
PyHPC Benchmarks - CPU - Numba - 1048576 - Equation of State (sec)	0.15	0.15	0.149
Normalized	99.33%	99.33%	100%
PyHPC Benchmarks - CPU - Numba - 1048576 - Isoneutral Mixing (sec)	0.52	0.526	0.522
Normalized	100%	98.86%	99.62%
PyHPC Benchmarks - CPU - Numba - 4194304 - Equation of State (sec)	0.591	0.592	0.592
Normalized	100%	99.83%	99.83%

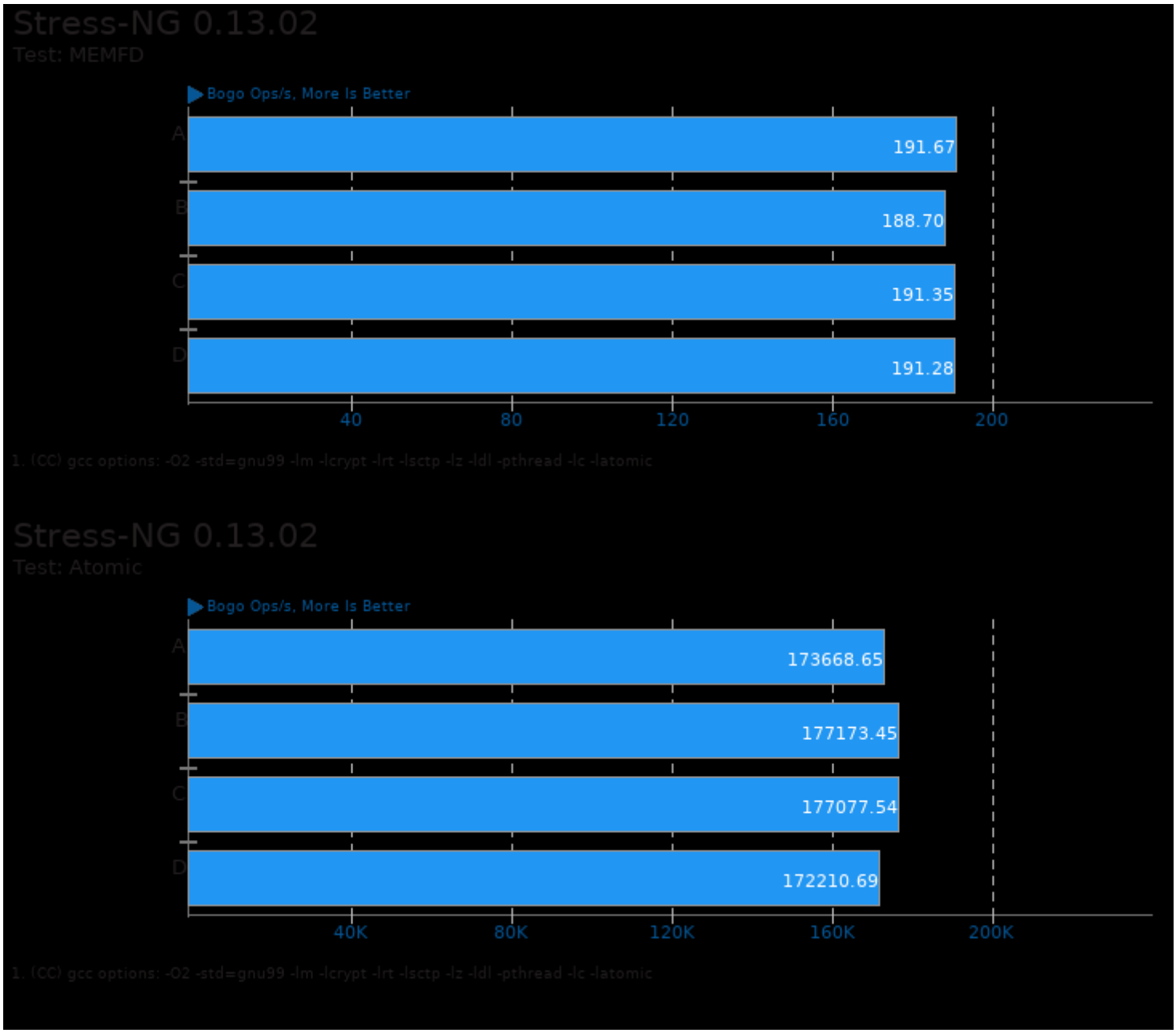
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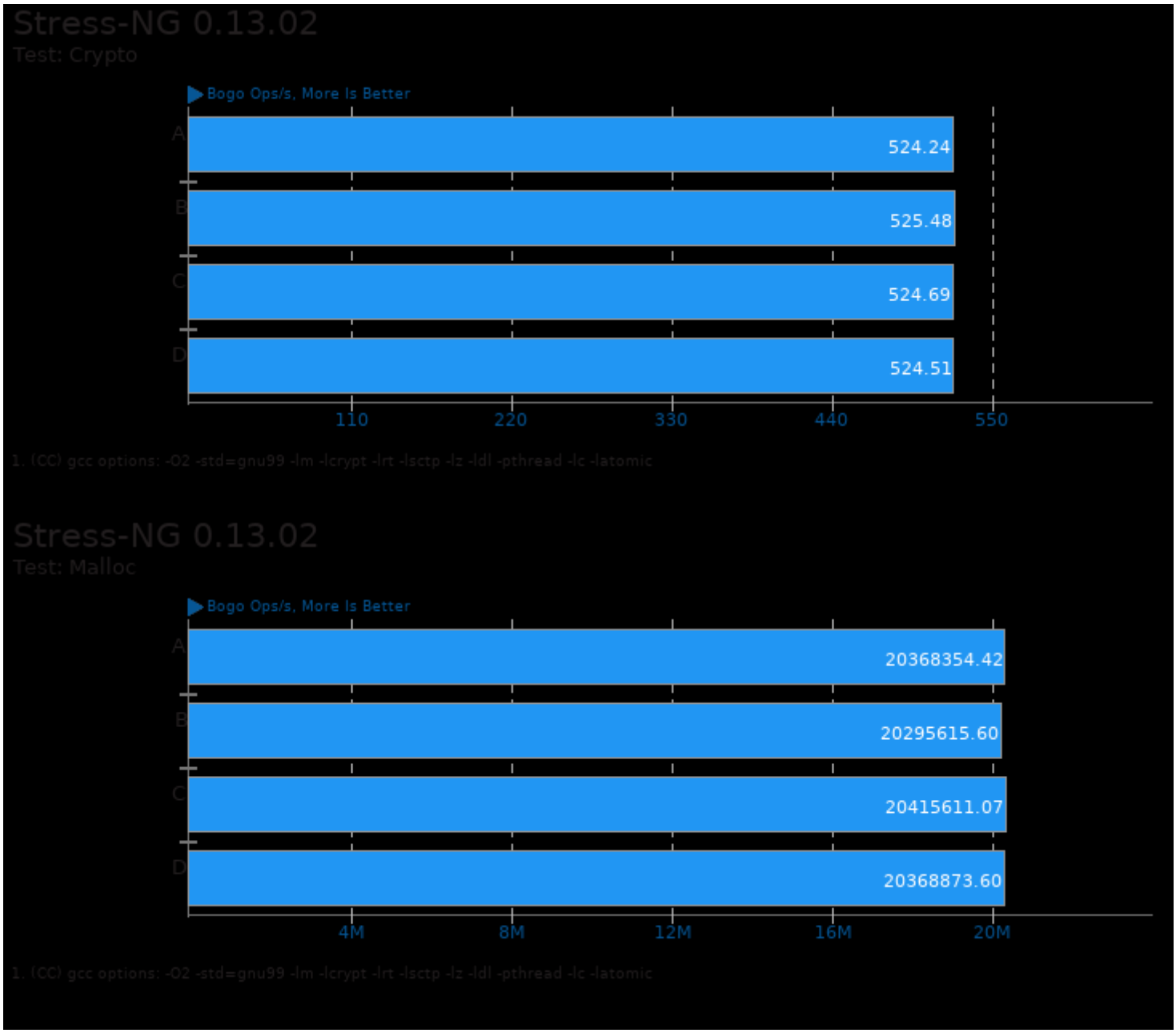
PyHPC Benchmarks - CPU - Numba - 4194304 - Isoneutral Mixing (sec)	2.182	2.16	2.162
Normalized	98.99%	100%	99.91%
PyHPC Benchmarks - CPU - Numpy - 1048576 - Equation of State (sec)	0.633	0.63	0.633
Normalized	99.53%	100%	99.53%
PyHPC Benchmarks - CPU - Numpy - 1048576 - Isoneutral Mixing (sec)	1.095	1.094	1.095
Normalized	99.91%	100%	99.91%
PyHPC Benchmarks - CPU - Numpy - 4194304 - Equation of State (sec)	2.67	2.674	2.699
Normalized	100%	99.85%	98.93%
PyHPC Benchmarks - CPU - Numpy - 4194304 - Isoneutral Mixing (sec)	4.445	4.454	4.451
Normalized	100%	99.8%	99.87%
PyHPC Benchmarks - CPU - PyTorch - 16384 - Equation of State (sec)	0.002	0.002	0.002
PyHPC Benchmarks - CPU - PyTorch - 16384 - Isoneutral Mixing (sec)	0.012	0.012	0.012
PyHPC Benchmarks - CPU - PyTorch - 65536 - Equation of State (sec)	0.006	0.007	0.006
Normalized	100%	85.71%	100%
PyHPC Benchmarks - CPU - PyTorch - 65536 - Isoneutral Mixing (sec)	0.048	0.046	0.046
Normalized	95.83%	100%	100%
PyHPC Benchmarks - CPU - Aesara - 1048576 - Equation of State (sec)	0.279	0.28	0.279
Normalized	100%	99.64%	100%
PyHPC Benchmarks - CPU - Aesara - 1048576 - Isoneutral Mixing (sec)	0.699	0.7	0.7
Normalized	100%	99.86%	99.86%
PyHPC Benchmarks - CPU - Aesara - 4194304 - Equation of State (sec)	1.109	1.1	1.097
Normalized	98.92%	99.73%	100%
PyHPC Benchmarks - CPU - Aesara - 4194304 - Isoneutral Mixing (sec)	2.975	3	2.994
Normalized	100%	99.17%	99.37%
PyHPC Benchmarks - CPU - PyTorch - 262144 - Equation of State (sec)	0.018	0.019	0.019
Normalized	100%	94.74%	94.74%
PyHPC Benchmarks - CPU - PyTorch - 262144 - Isoneutral Mixing (sec)	0.183	0.178	0.179
Normalized	97.27%	100%	99.44%
PyHPC Benchmarks - CPU - PyTorch - 1048576 - Equation of State (sec)	0.077	0.077	0.077
PyHPC Benchmarks - CPU - PyTorch - 1048576 - Isoneutral Mixing (sec)	0.832	0.83	0.836
Normalized	99.76%	100%	99.28%

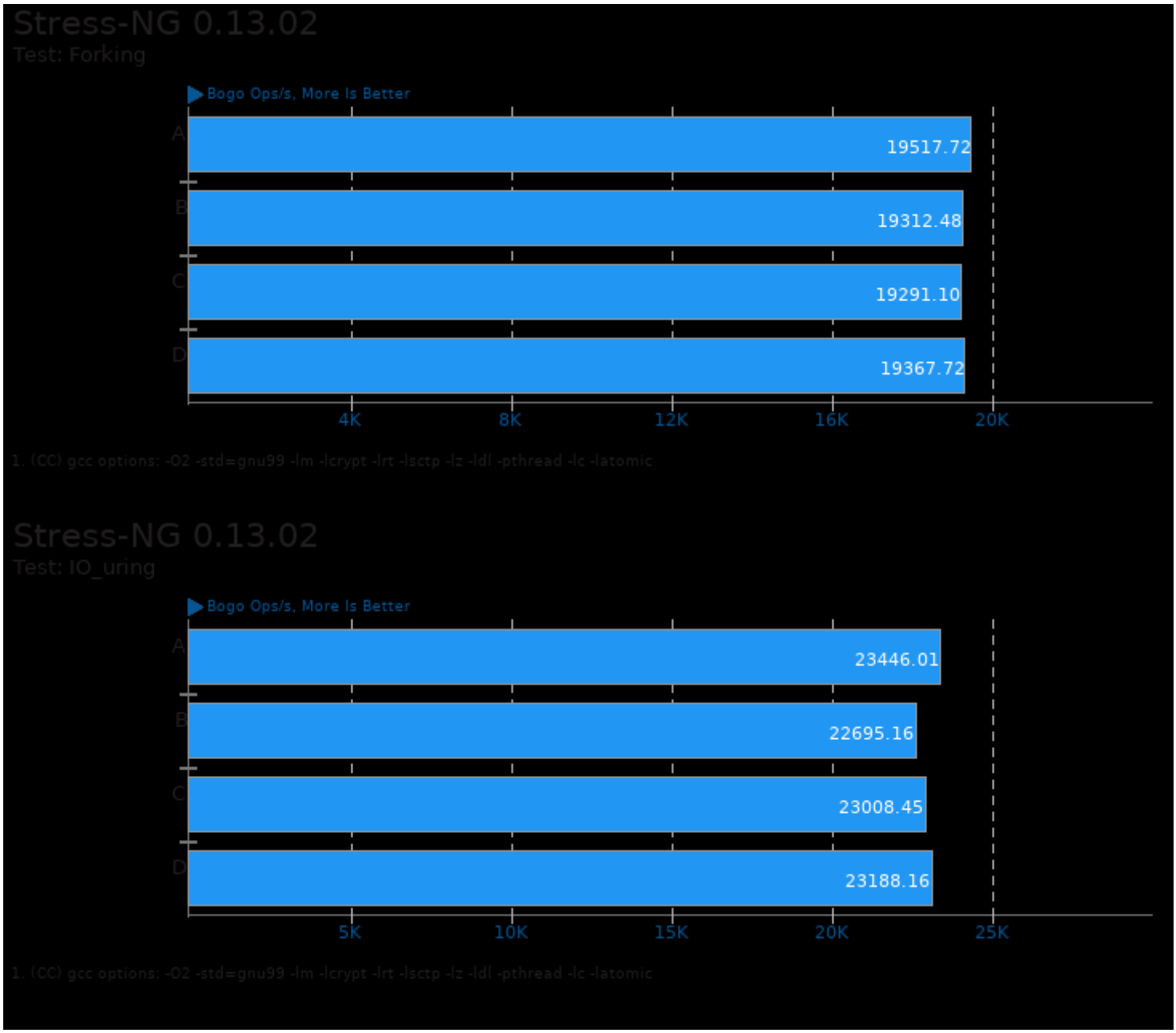
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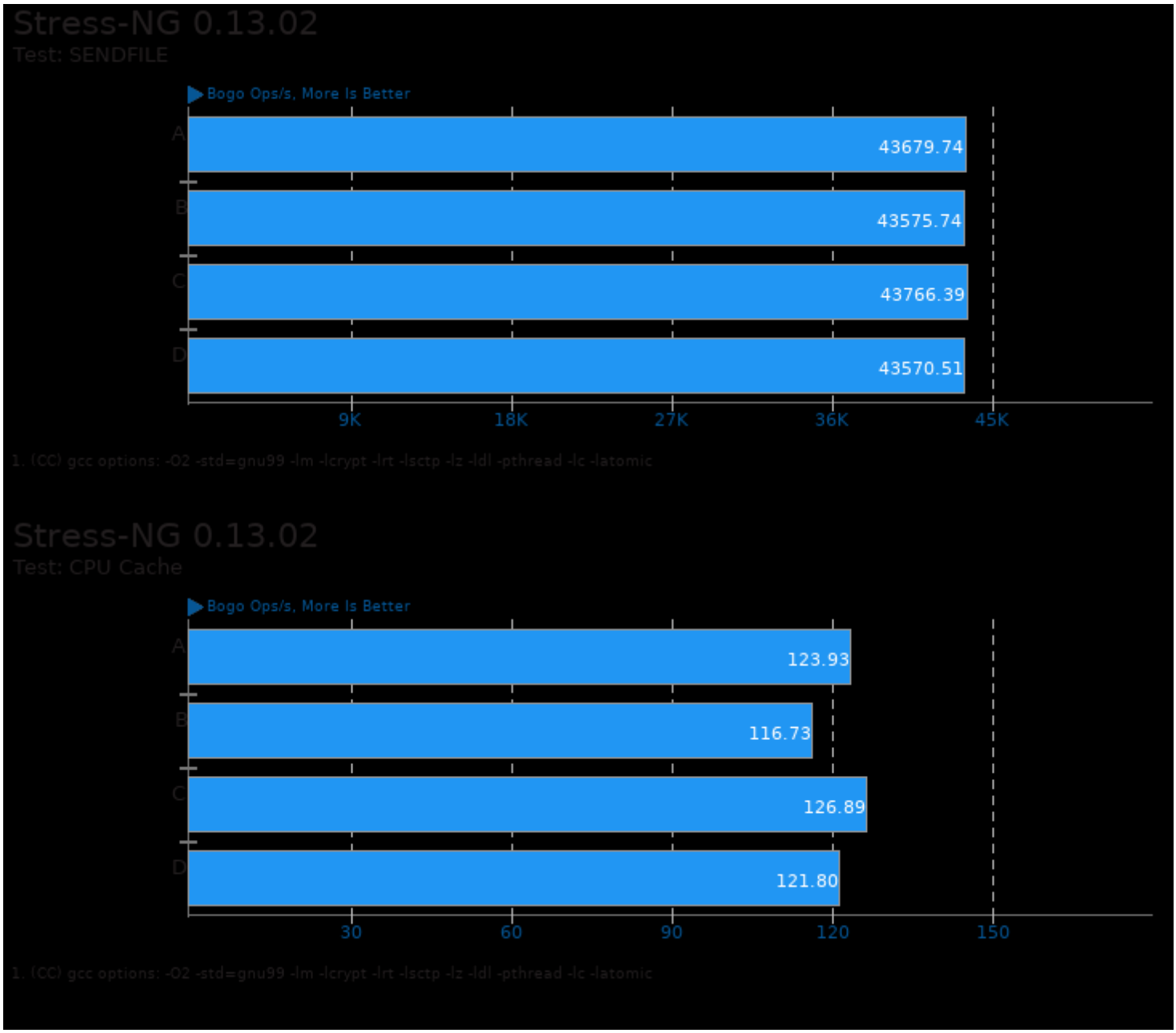
PyHPC Benchmarks - CPU - PyTorch - 4194304 - Equation of State (sec)	0.315	**0.314**	**0.319**
Normalized	99.68%	100%	98.43%
PyHPC Benchmarks - CPU - PyTorch - 4194304 - Isoneutral Mixing (sec)	**3.511**	3.483	**3.427**
Normalized	97.61%	98.39%	100%
PyHPC Benchmarks - CPU - TensorFlow - 16384 - Equation of	0.003	0.003	0.003
PyHPC Benchmarks - CPU - TensorFlow - 65536 - Equation of	0.008	0.008	0.008
PyHPC Benchmarks - CPU - TensorFlow - 262144 - Equation of	0.023	0.023	0.023
PyHPC Benchmarks - CPU - TensorFlow - 1048576 - Equation of	**0.089**	0.091	**0.092**
Normalized	100%	97.8%	96.74%
PyHPC Benchmarks - CPU - TensorFlow - 4194304 - Equation of	**0.398**	**0.398**	**0.4**
Normalized	100%	100%	99.5%

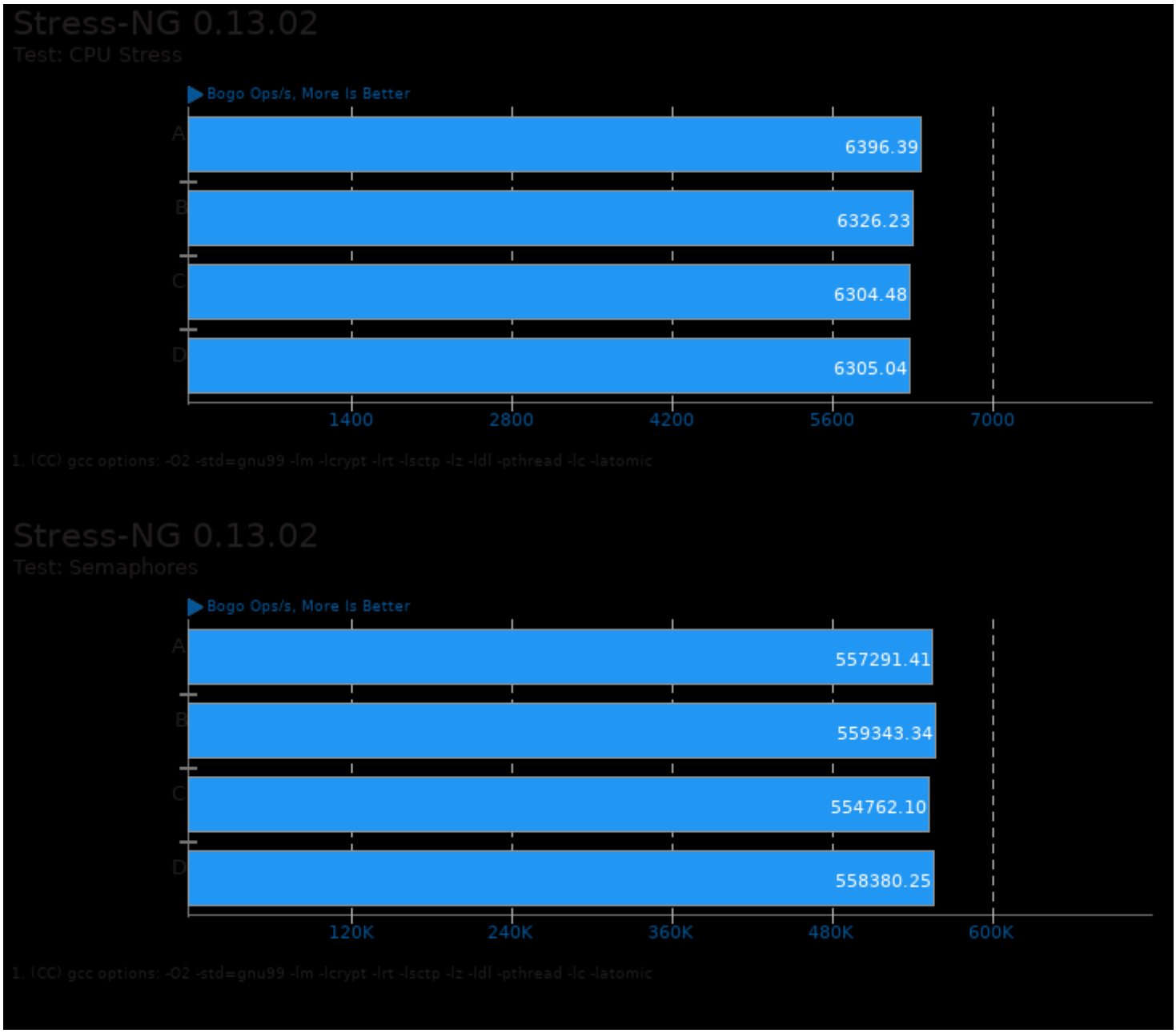

Stress-NG 0.13.02
Test: MMAP
Bogo Ops/s, More Is Better
A
B
C
D
27.40
26.94
25.44
27.02
6
12
18
24
30
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: NUMA
Bogo Ops/s, More Is Better
A
B
C
D
68.51
68.64
67.11
66.68
15
30
45
60
75
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

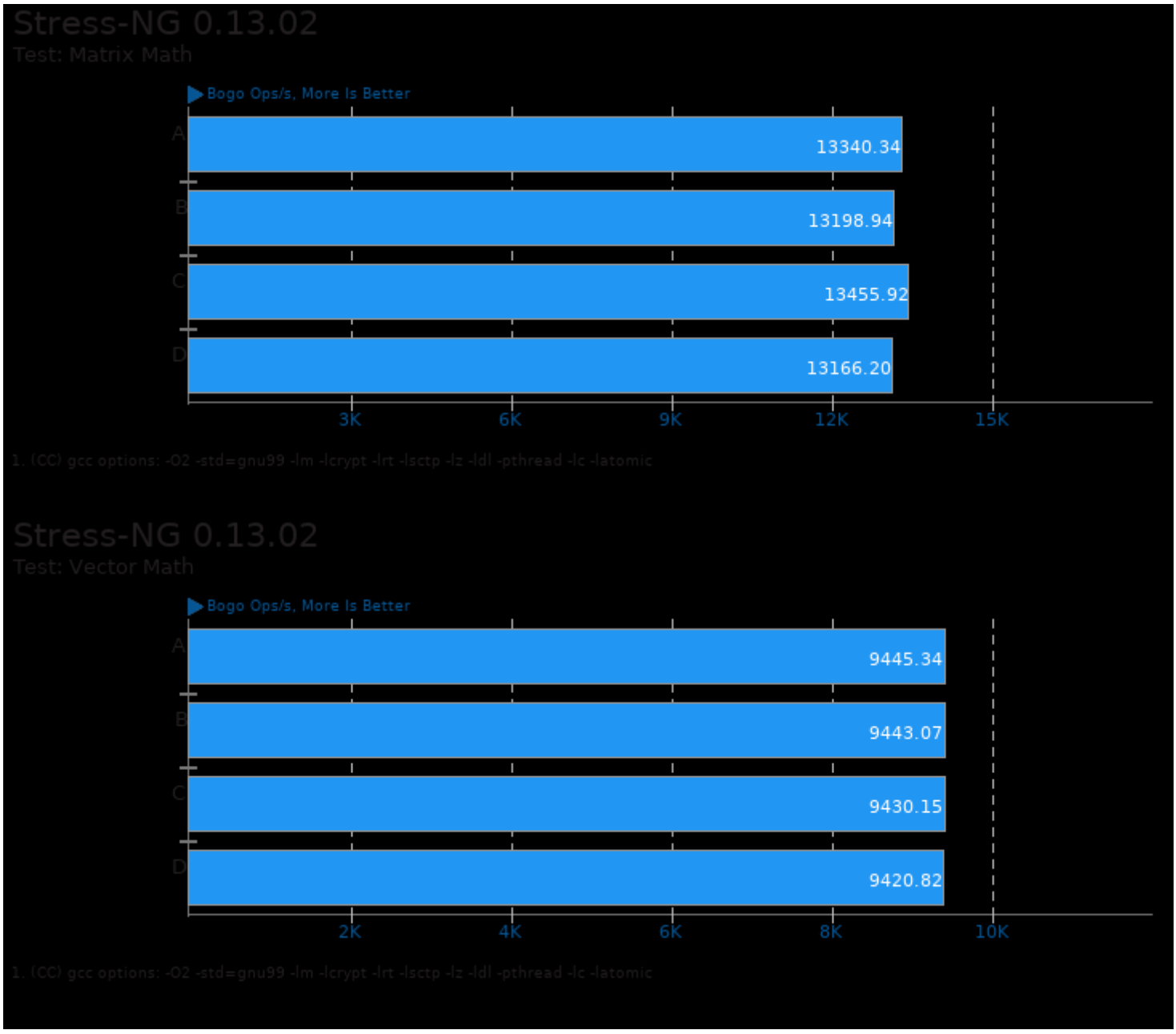

Stress-NG 0.13.02
Test: MEMFD
Bogo Ops/s, More Is Better
A
B
C
D
191.67
188.70
191.35
191.28
40
80
120
160
200
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Atomic
Bogo Ops/s, More Is Better
A
B
C
D
173668.65
177173.45
177077.54
172210.69
40K
80K
120K
160K
200K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

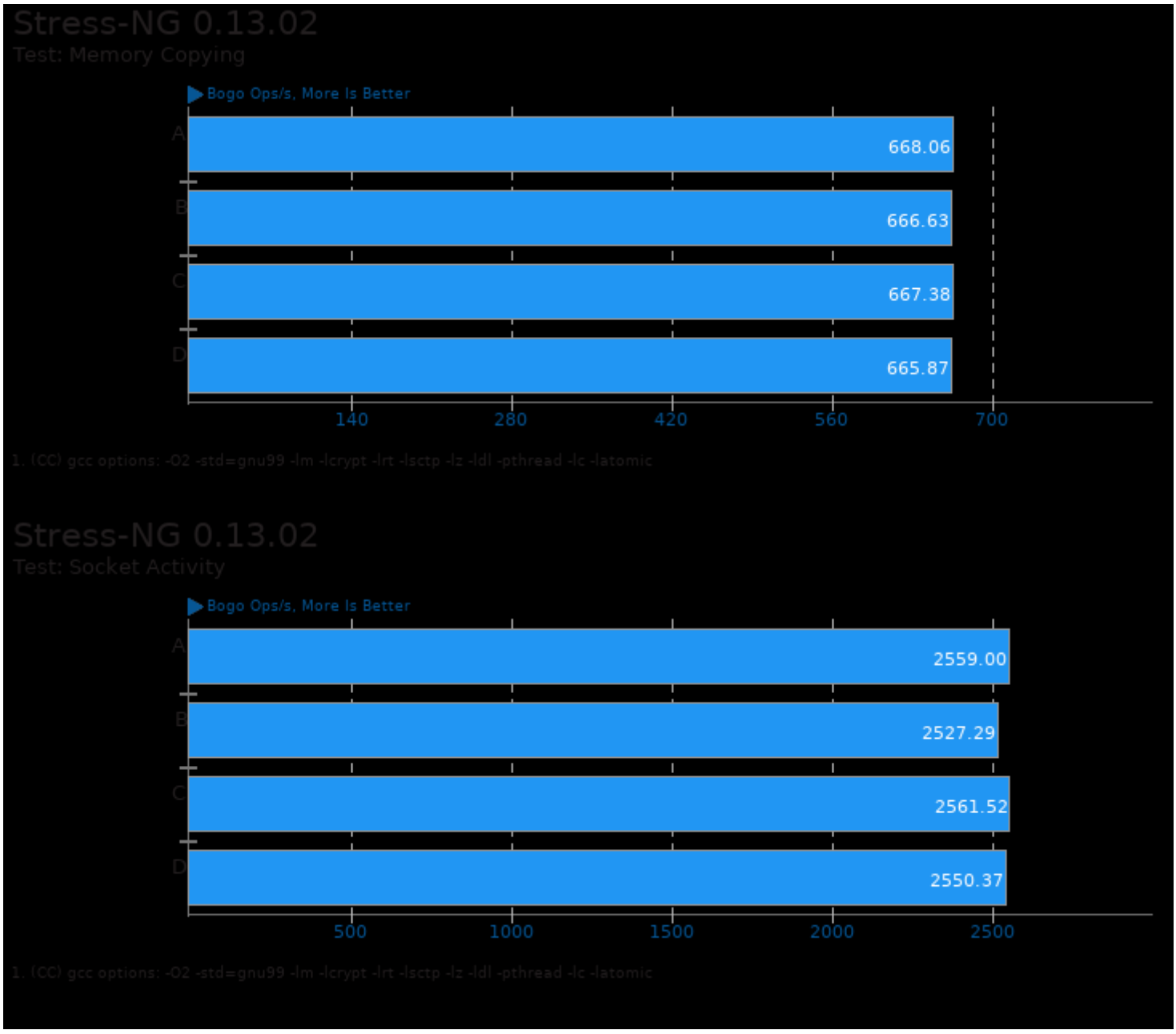

Stress-NG 0.13.02
Test: Crypto
Bogo Ops/s, More Is Better
A
524.24
B
525.48
C
524.69
D
524.51
110
220
330
440
550
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Malloc
Bogo Ops/s, More Is Better
A
20368354.42
B
20295615.60
C
20415611.07
D
20368873.60
4M
8M
12M
16M
20M
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

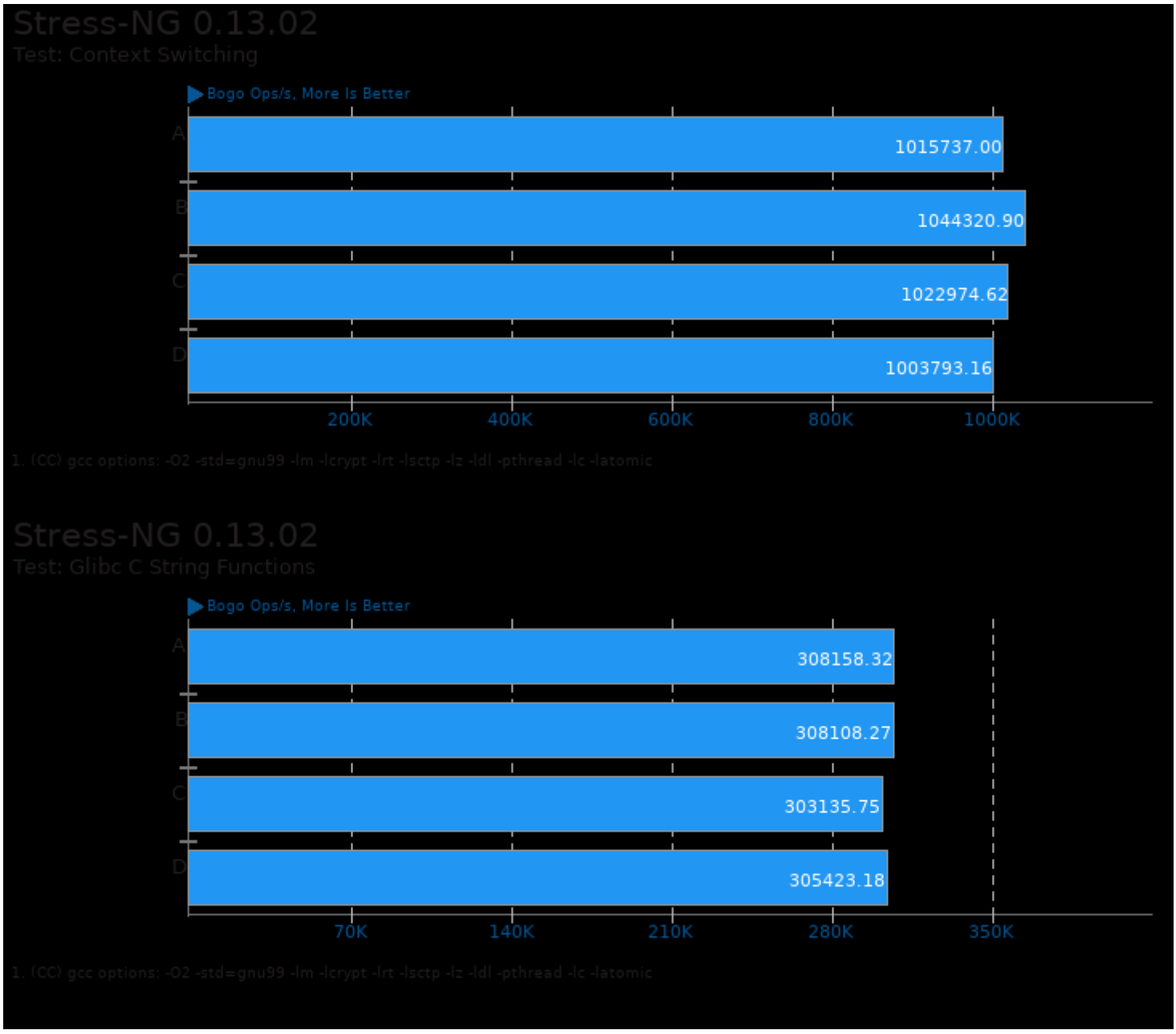

Stress-NG 0.13.02
Test: Forking
Bogo Ops/s, More Is Better
A
19517.72
B
19312.48
C
19291.10
D
19367.72
4K
8K
12K
16K
20K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: IO_uring
Bogo Ops/s, More Is Better
A
23446.01
B
22695.16
C
23008.45
D
23188.16
5K
10K
15K
20K
25K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

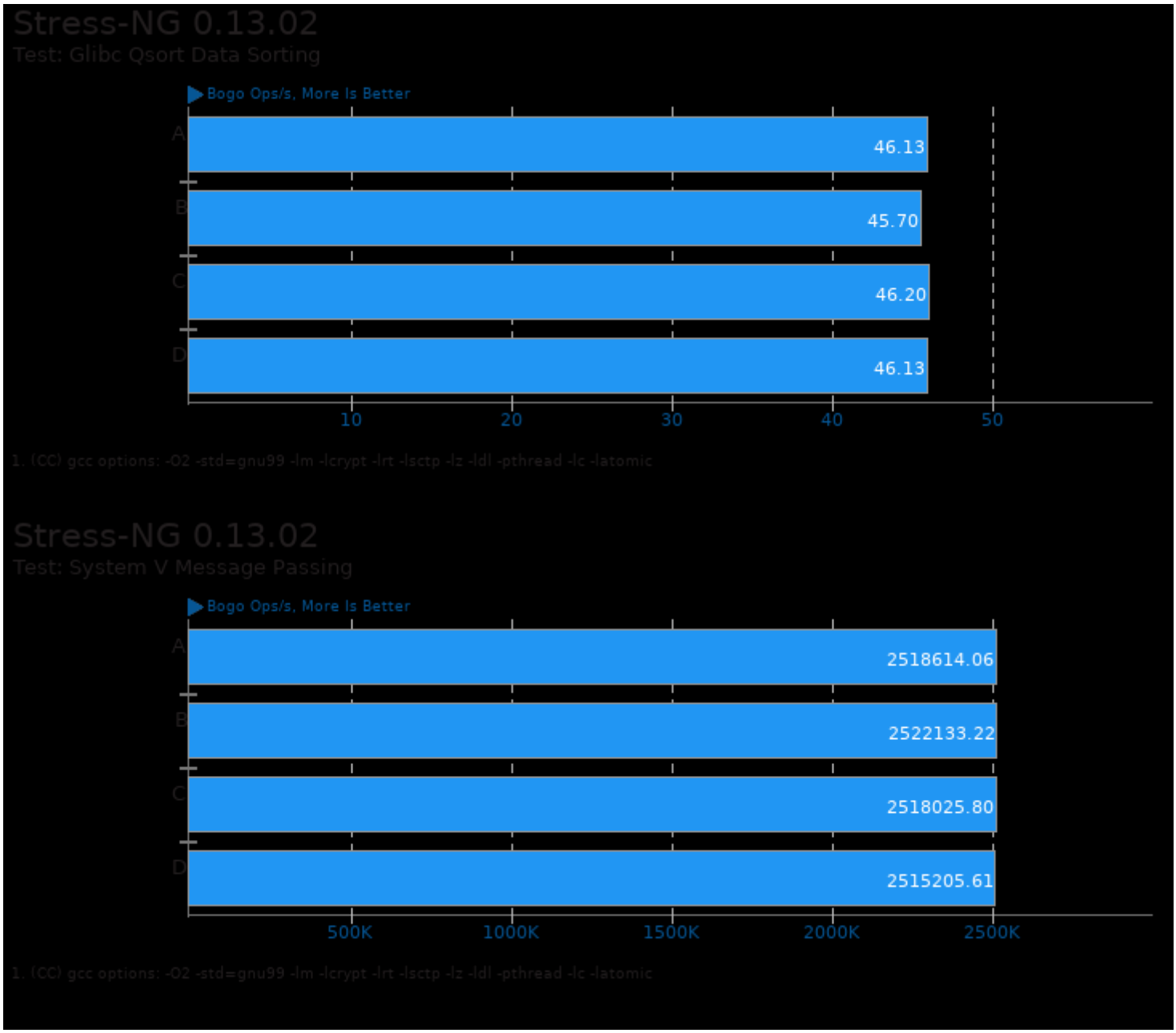

Stress-NG 0.13.02
Test: SENDFILE
Bogo Ops/s, More Is Better
A
B
C
D
43679.74
43575.74
43766.39
43570.51
9K
18K
27K
36K
45K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: CPU Cache
Bogo Ops/s, More Is Better
A
B
C
D
123.93
116.73
126.89
121.80
30
60
90
120
150
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

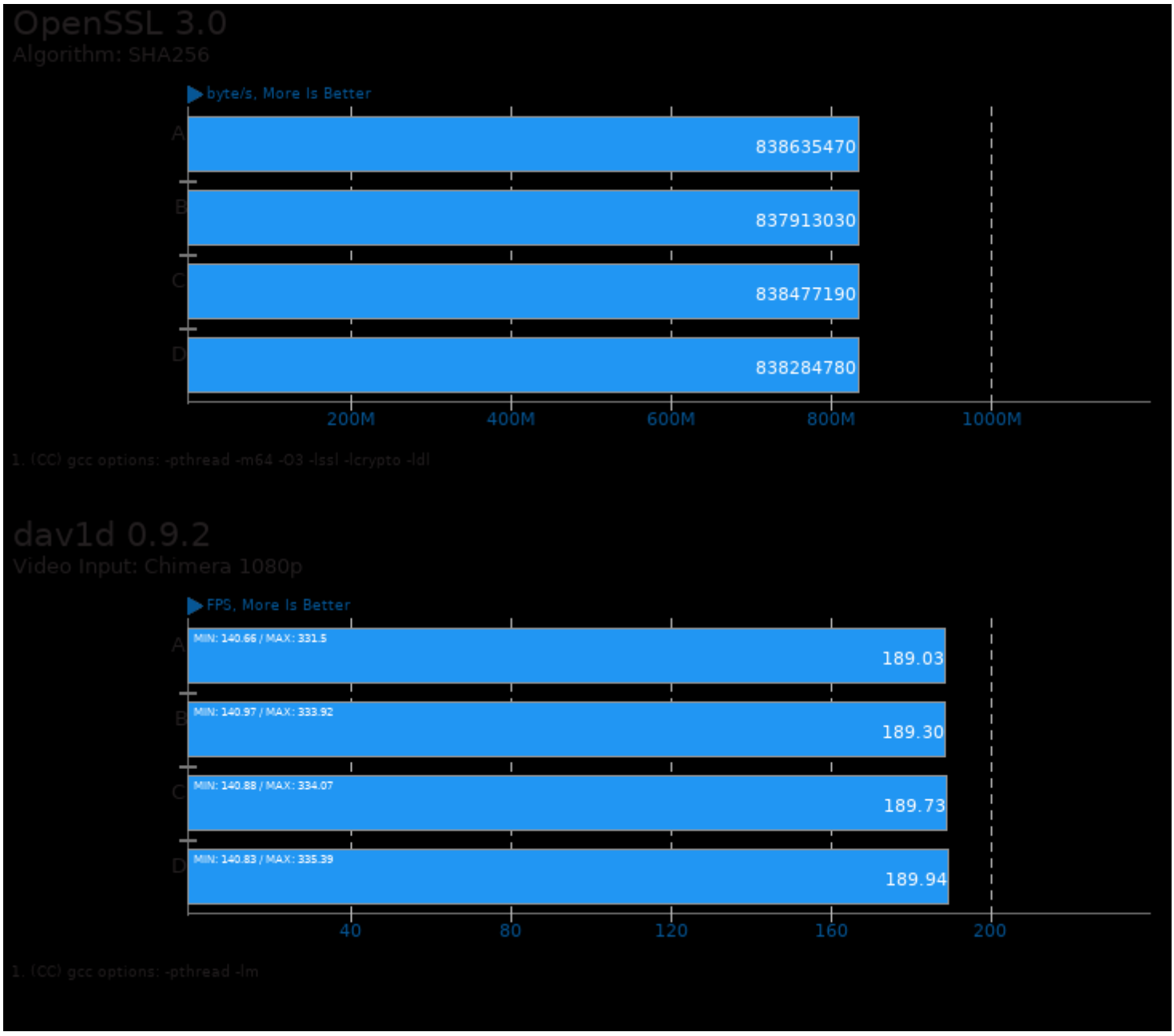

Stress-NG 0.13.02
Test: CPU Stress
Bogo Ops/s, More Is Better
A
B
C
D
6396.39
6326.23
6304.48
6305.04
1400
2800
4200
5600
7000
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Semaphores
Bogo Ops/s, More Is Better
A
B
C
D
557291.41
559343.34
554762.10
558380.25
120K
240K
360K
480K
600K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

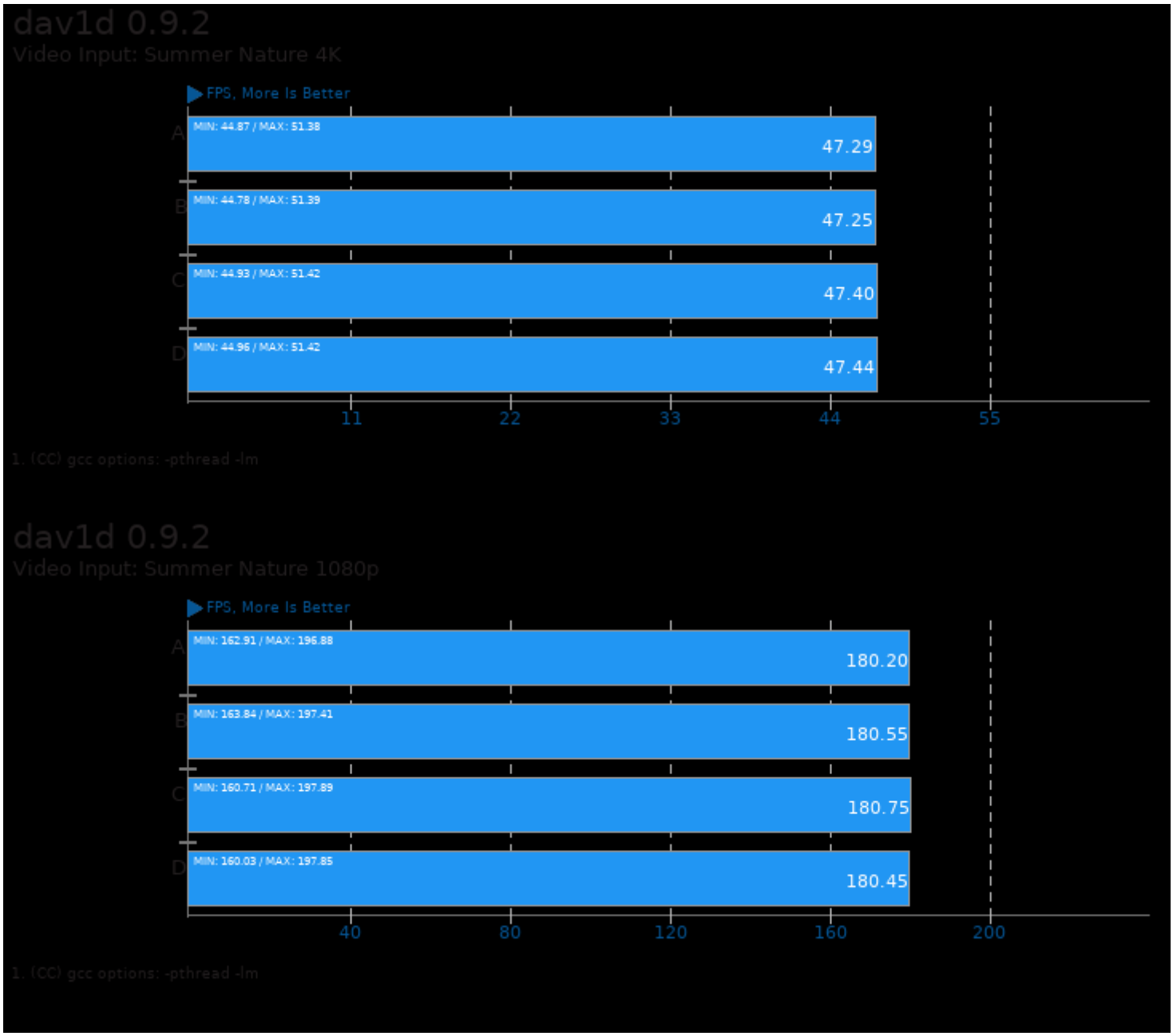

Stress-NG 0.13.02
Test: Matrix Math
Bogo Ops/s, More Is Better
A
13340.34
B
13198.94
C
13455.92
D
13166.20
3K
6K
9K
12K
15K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Vector Math
Bogo Ops/s, More Is Better
A
9445.34
B
9443.07
C
9430.15
D
9420.82
2K
4K
6K
8K
10K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

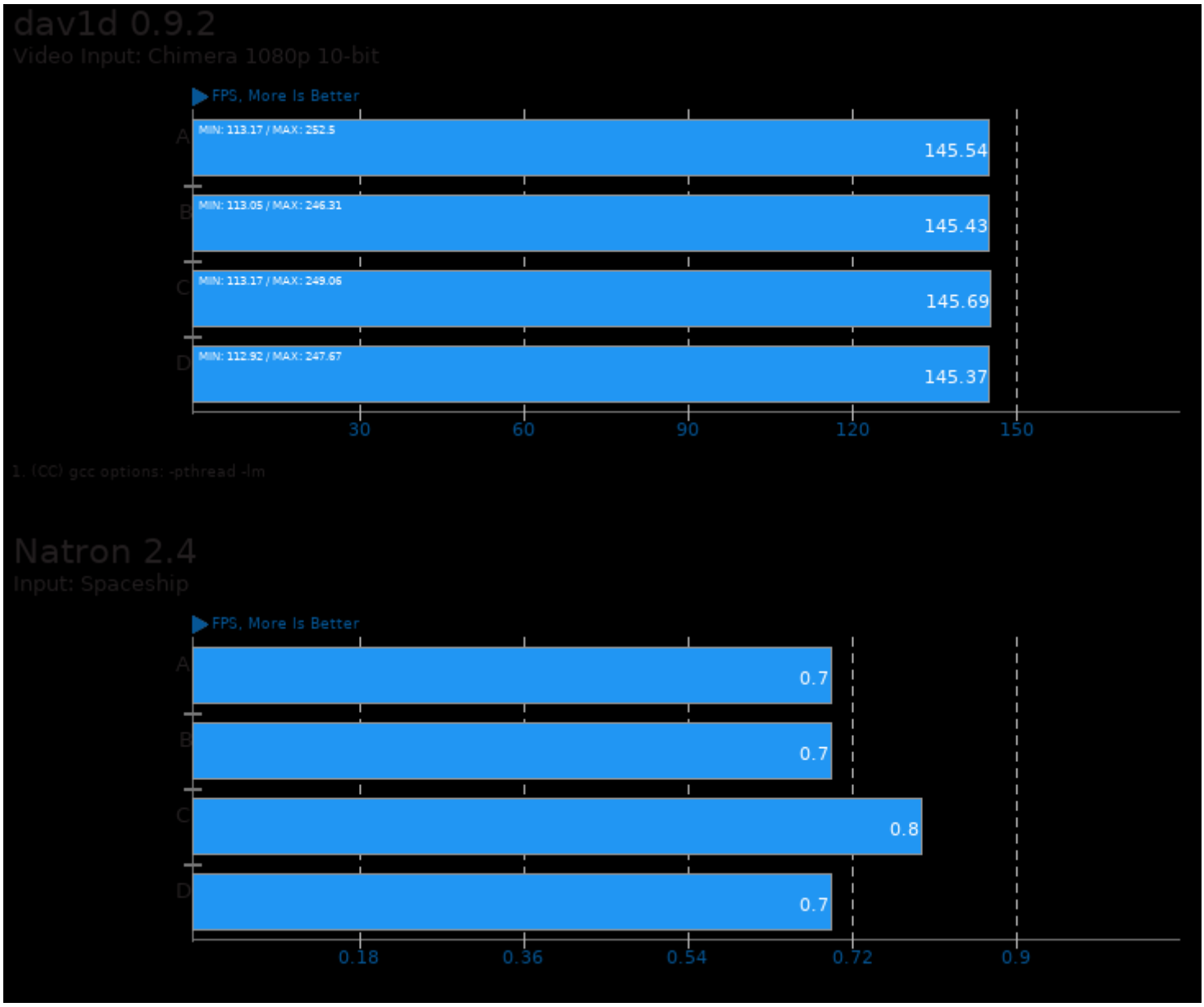

Stress-NG 0.13.02
Test: Memory Copying
Bogo Ops/s, More Is Better
A
668.06
B
666.63
C
667.38
D
665.87
140
280
420
560
700
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Socket Activity
Bogo Ops/s, More Is Better
A
2559.00
B
2527.29
C
2561.52
D
2550.37
500
1000
1500
2000
2500
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

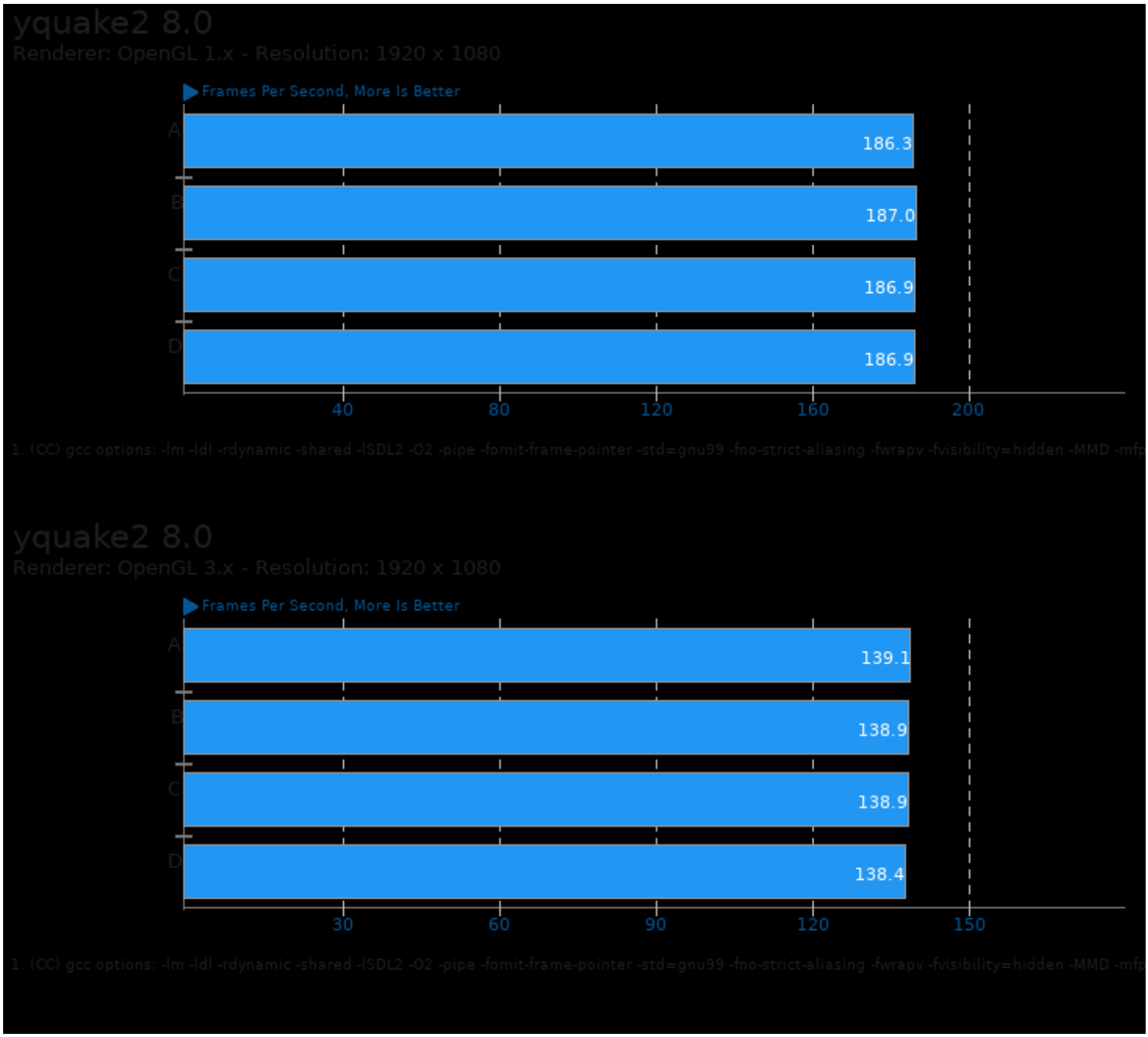

Stress-NG 0.13.02
Test: Context Switching
Bogo Ops/s, More Is Better
A
1015737.00
B
1044320.90
C
1022974.62
D
1003793.16
200K
400K
600K
800K
1000K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: Glibc C String Functions
Bogo Ops/s, More Is Better
A
308158.32
B
308108.27
C
303135.75
D
305423.18
70K
140K
210K
280K
350K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

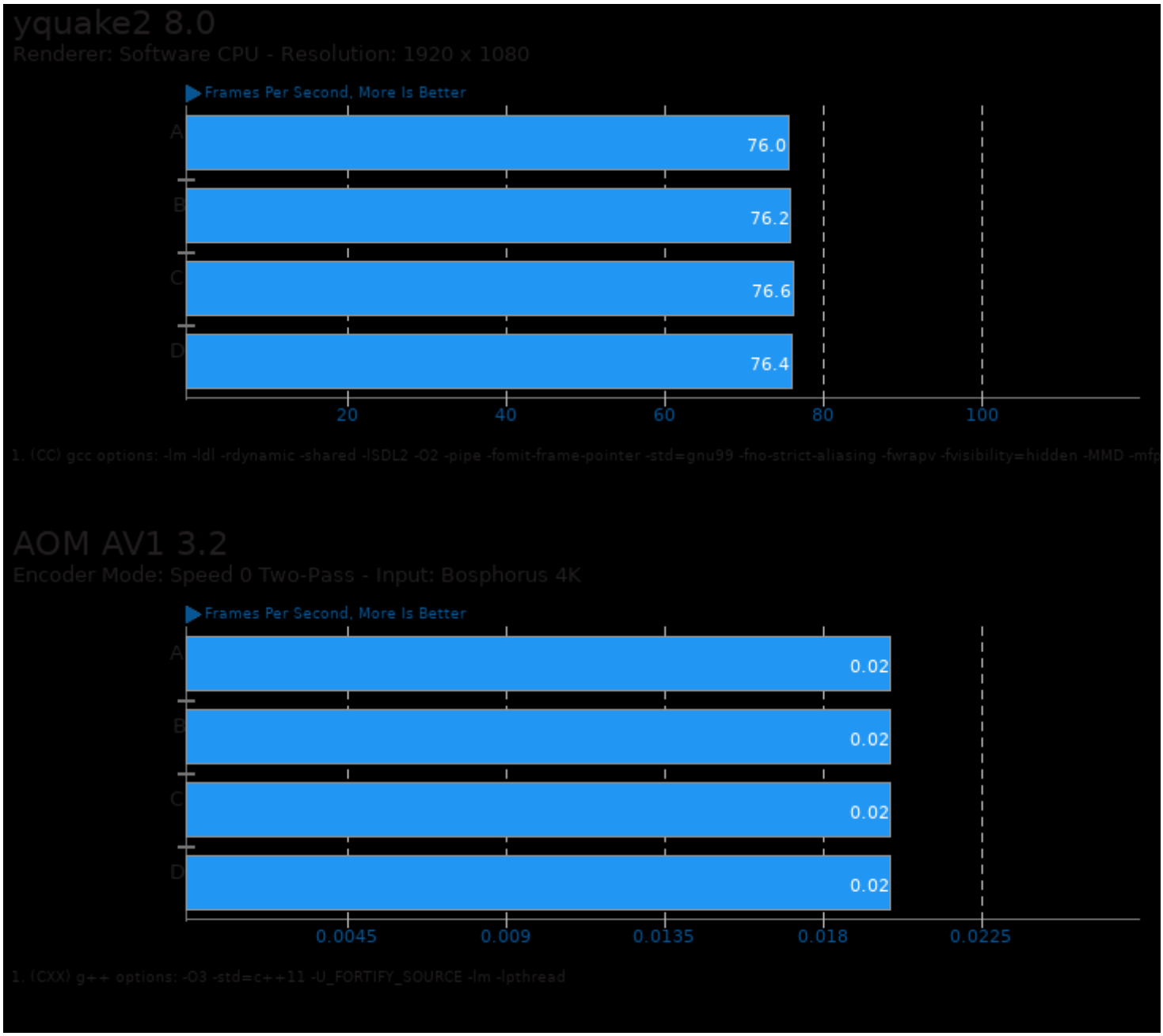

Stress-NG 0.13.02
Test: Glibc Qsort Data Sorting
Bogo Ops/s, More Is Better
A
B
C
D
46.13
45.70
46.20
46.13
10
20
30
40
50
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic
Stress-NG 0.13.02
Test: System V Message Passing
Bogo Ops/s, More Is Better
A
B
C
D
2518614.06
2522133.22
2518025.80
2515205.61
500K
1000K
1500K
2000K
2500K
1. (CC) gcc options: -O2 -std=gnu99 -lm -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

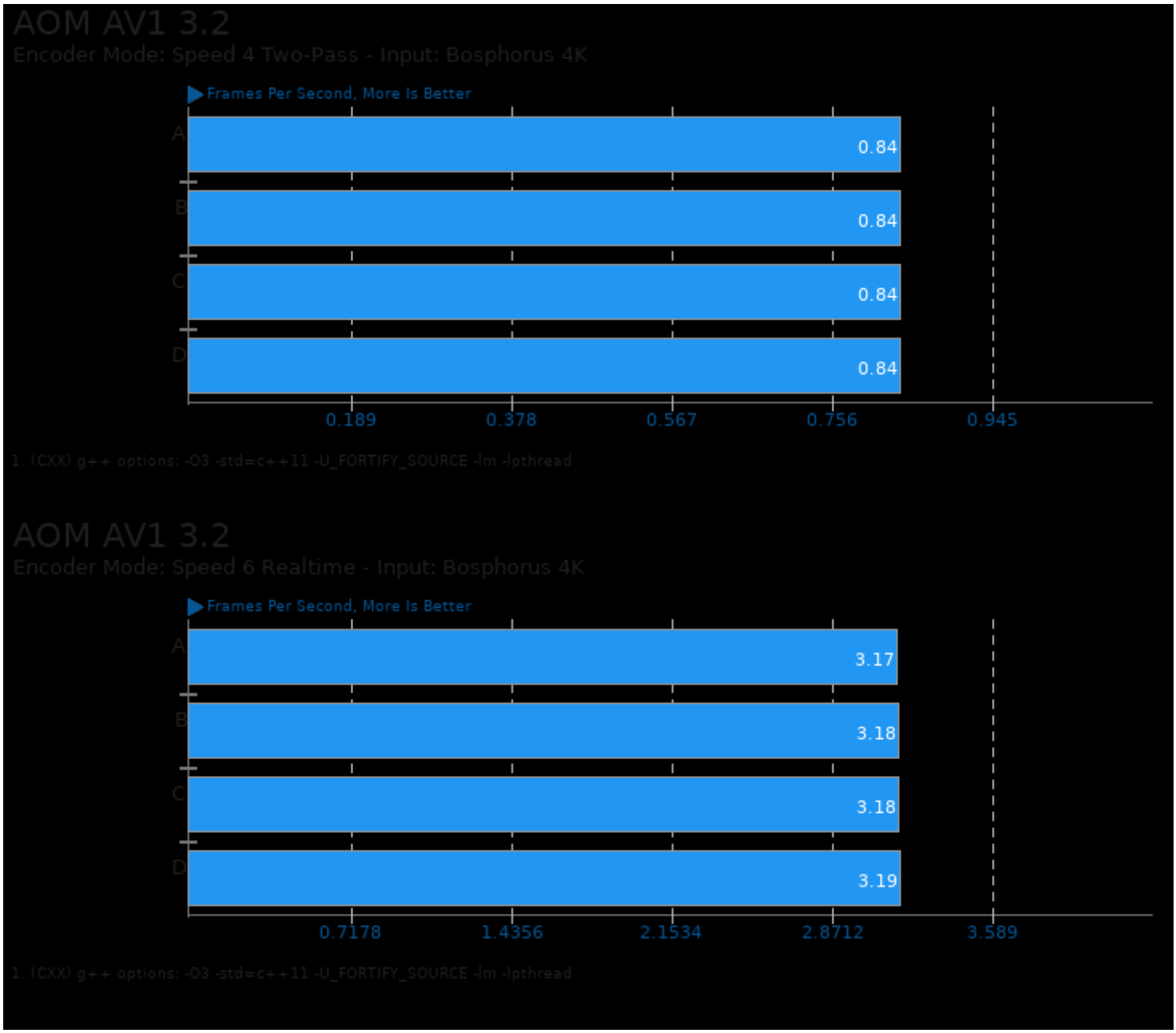

OpenSSL 3.0
Algorithm: SHA256
byte/s, More Is Better
A
838635470
B
837913030
C
838477190
D
838284780
200M
400M
600M
800M
1000M
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
dav1d 0.9.2
Video Input: Chimera 1080p
FPS, More Is Better
A
MIN: 140.66 / MAX: 331.5
189.03
B
MIN: 140.97 / MAX: 333.92
189.30
C
MIN: 140.88 / MAX: 334.07
189.73
D
MIN: 140.83 / MAX: 335.39
189.94
40
80
120
160
200
1. (CC) gcc options: -pthread -lm

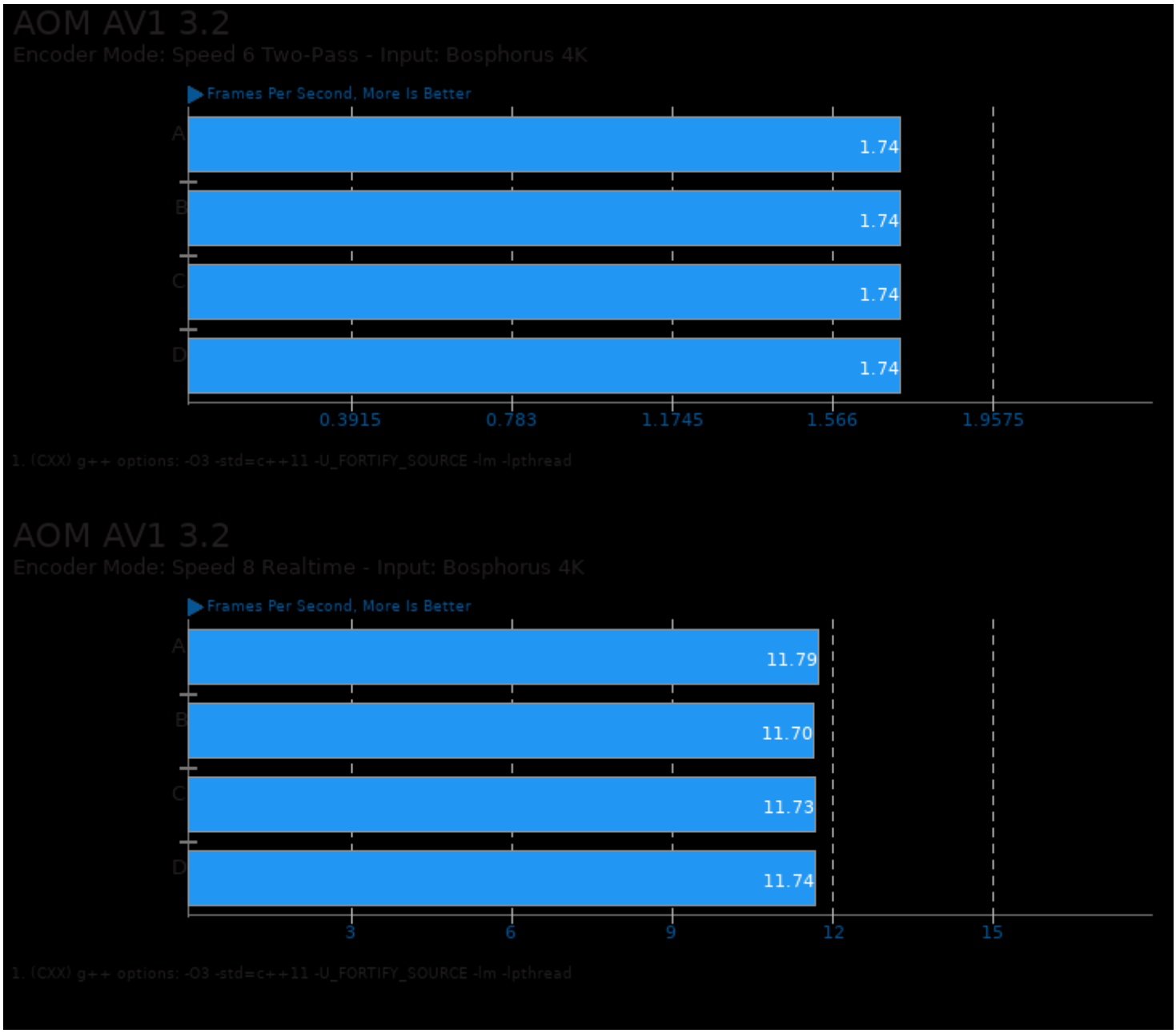

dav1d 0.9.2
Video Input: Summer Nature 4K
FPS, More Is Better
A
MIN: 44.87 / MAX: 51.38
47.29
B
MIN: 44.78 / MAX: 51.39
47.25
C
MIN: 44.93 / MAX: 51.42
47.40
D
MIN: 44.96 / MAX: 51.42
47.44
11
22
33
44
55
1. (CC) gcc options: -pthread -lm
dav1d 0.9.2
Video Input: Summer Nature 1080p
FPS, More Is Better
A
MIN: 162.91 / MAX: 196.88
180.20
B
MIN: 163.84 / MAX: 197.41
180.55
C
MIN: 160.71 / MAX: 197.89
180.75
D
MIN: 160.03 / MAX: 197.85
180.45
40
80
120
160
200
1. (CC) gcc options: -pthread -lm

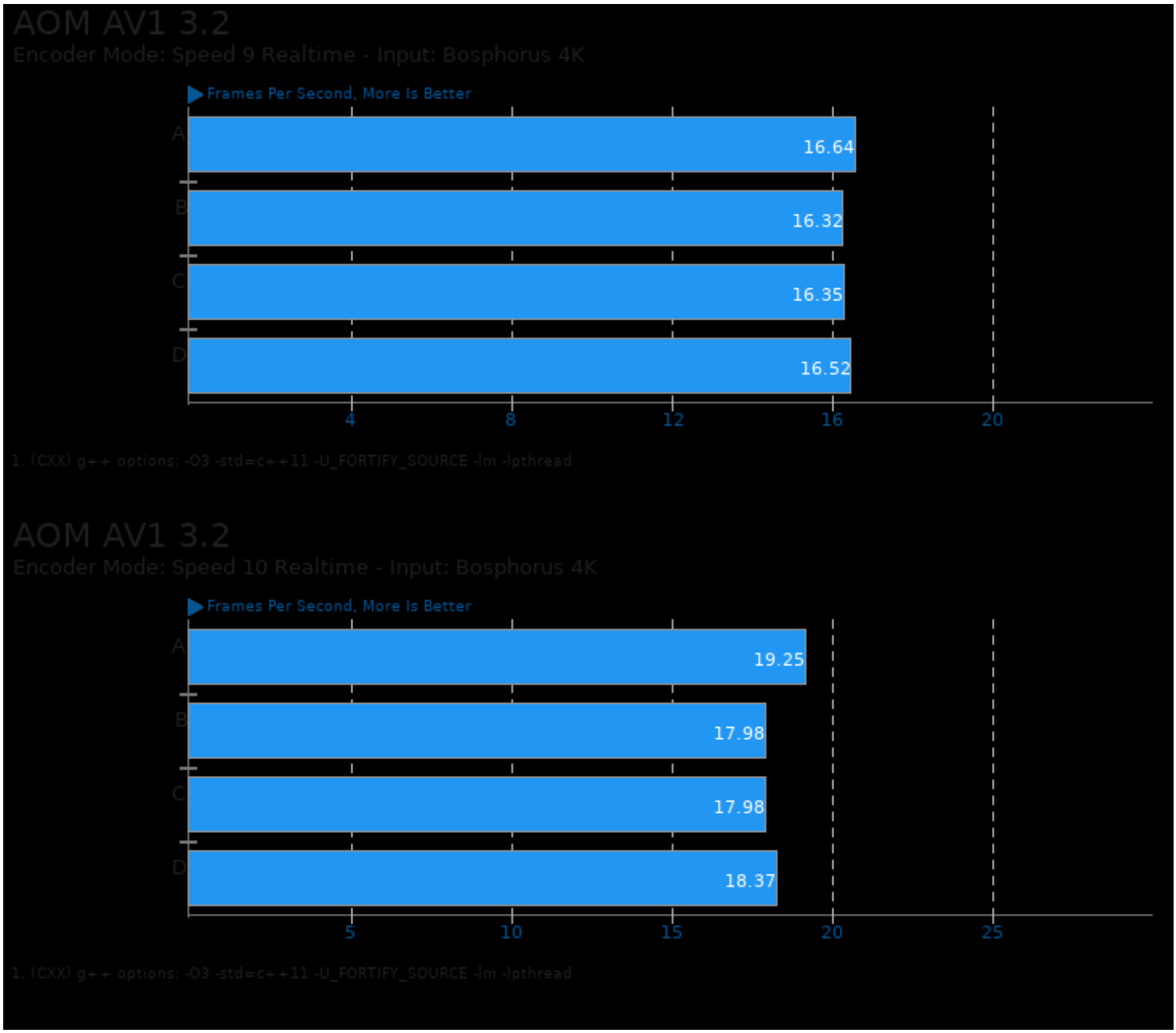

dav1d 0.9.2
Video Input: Chimera 1080p 10-bit
FPS, More Is Better
A
MIN: 113.17 / MAX: 252.5
145.54
B
MIN: 113.05 / MAX: 246.31
145.43
C
MIN: 113.17 / MAX: 249.06
145.69
D
MIN: 112.92 / MAX: 247.67
145.37
30
60
90
120
150
1. (CC) gcc options: -pthread -lm
Natron 2.4
Input: Spaceship
FPS, More Is Better
A
0.7
B
0.7
C
0.8
D
0.7
0.18
0.36
0.54
0.72
0.9

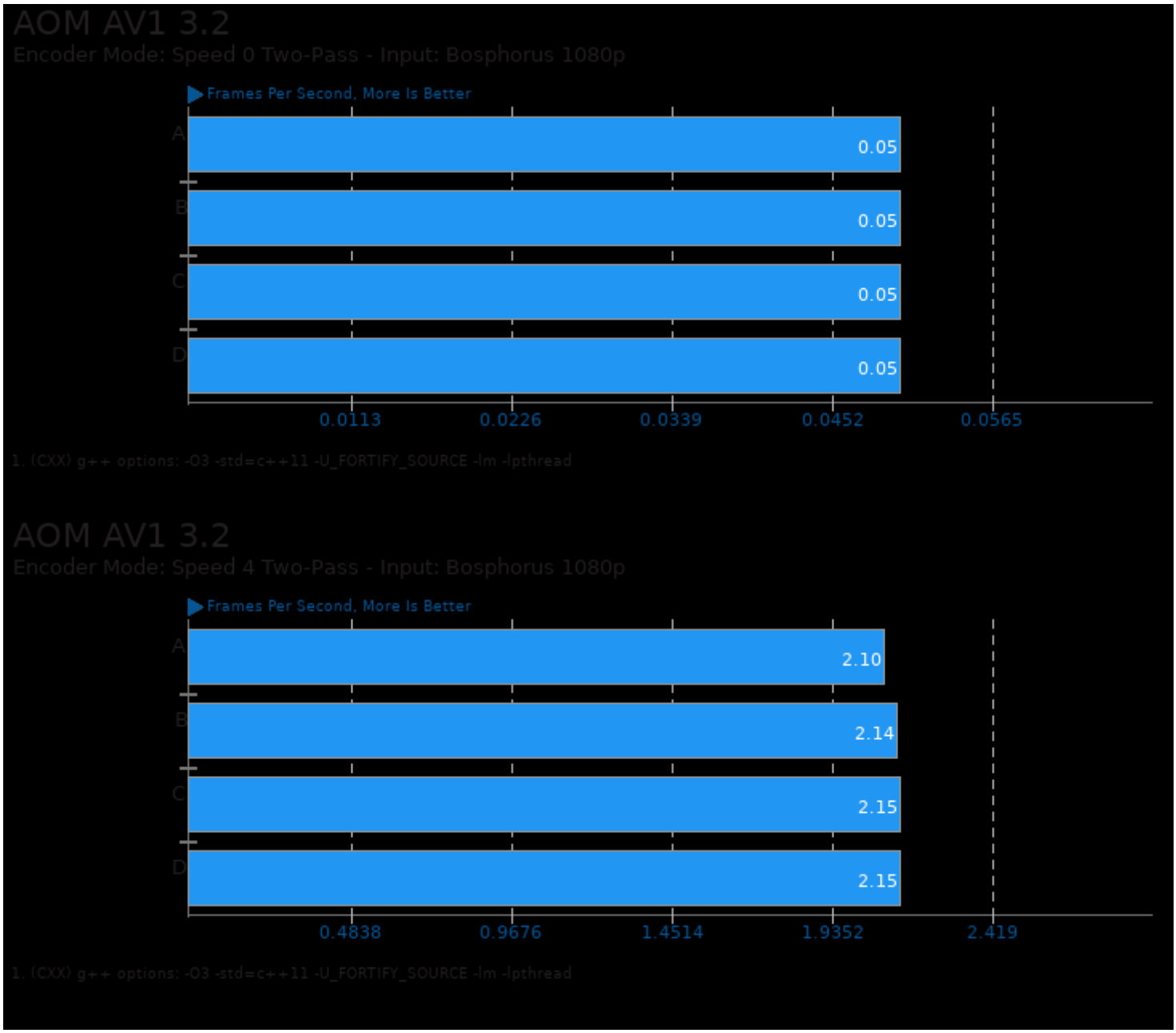

yquake2 8.0
Renderer: OpenGL 1.x - Resolution: 1920 x 1080
Frames Per Second, More Is Better
A
186.3
B
187.0
C
186.9
D
186.9
40
80
120
160
200
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf
yquake2 8.0
Renderer: OpenGL 3.x - Resolution: 1920 x 1080
Frames Per Second, More Is Better
A
139.1
B
138.9
C
138.9
D
138.4
30
60
90
120
150
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf

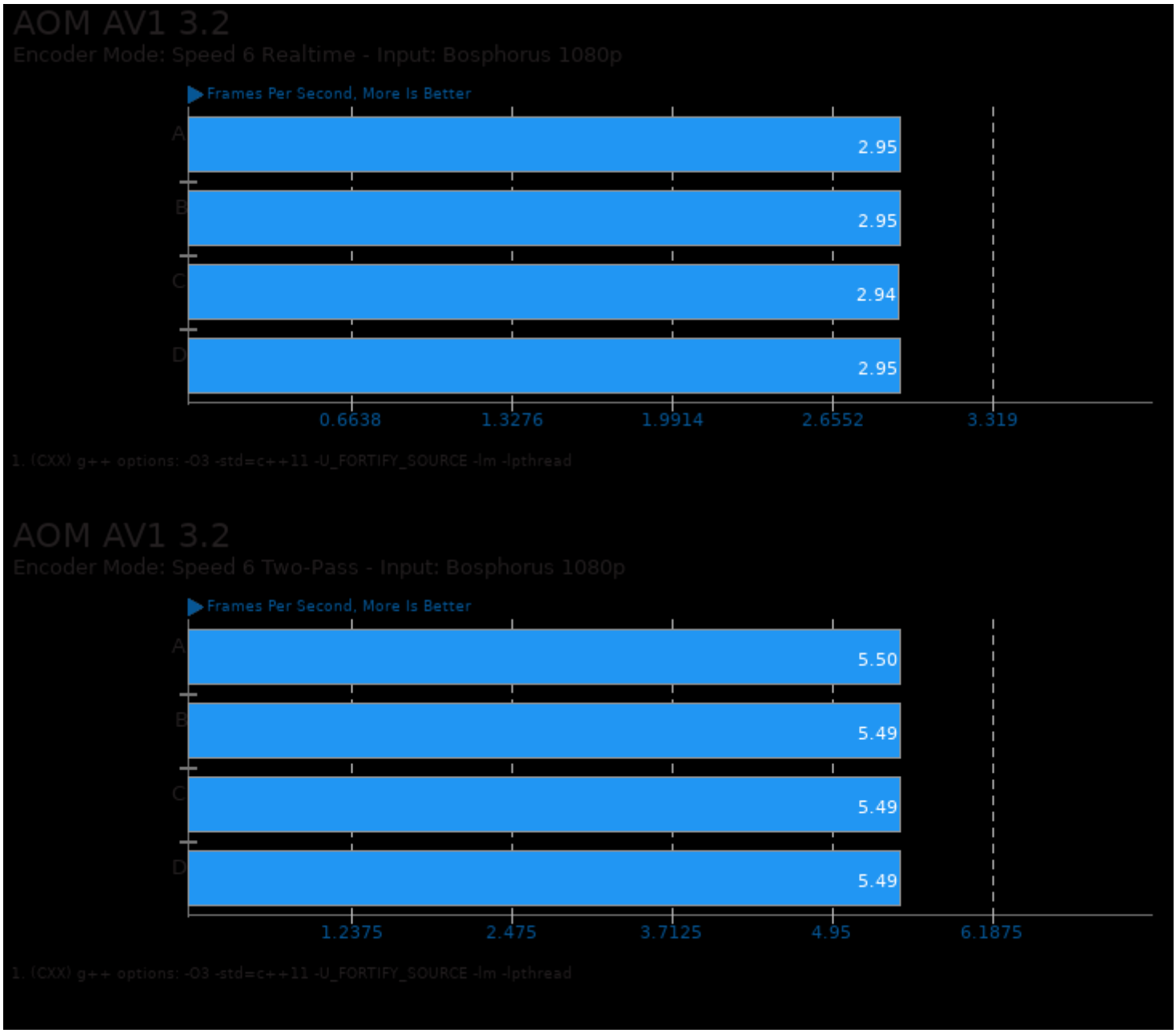

yquake2 8.0
Renderer: Software CPU - Resolution: 1920 x 1080
Frames Per Second, More Is Better
A
B
C
D
76.0
76.2
76.6
76.4
20
40
60
80
100
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf
AOM AV1 3.2
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
D
0.02
0.02
0.02
0.02
0.0045
0.009
0.0135
0.018
0.0225
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

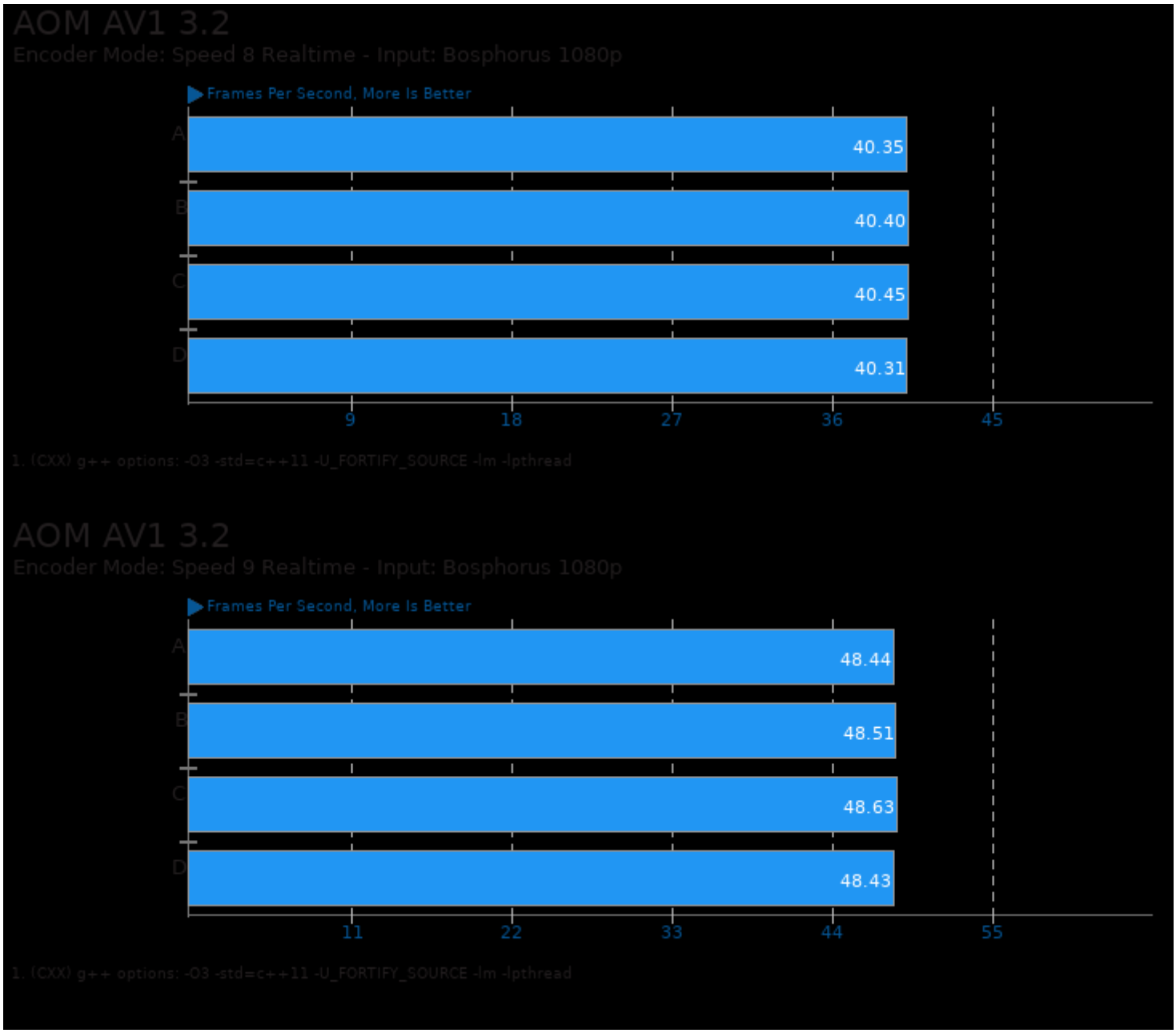

AOM AV1 3.2
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
D
0.84
0.84
0.84
0.84
0.189
0.378
0.567
0.756
0.945
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.2
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
D
3.17
3.18
3.18
3.19
0.7178
1.4356
2.1534
2.8712
3.589
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

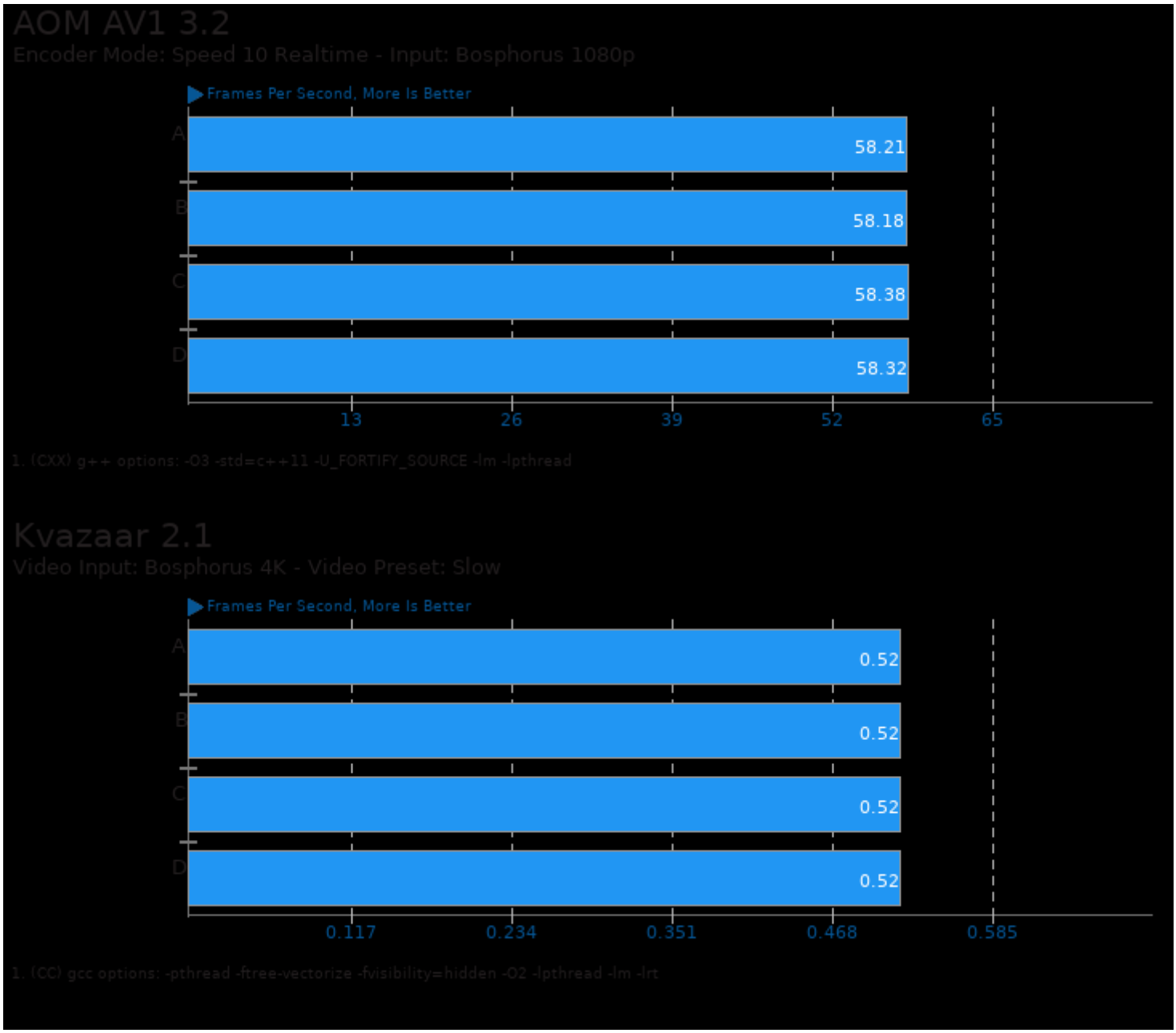

AOM AV1 3.2
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
D
1.74
1.74
1.74
1.74
0.3915
0.783
1.1745
1.566
1.9575
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.2
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
B
C
D
11.79
11.70
11.73
11.74
3
6
9
12
15
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

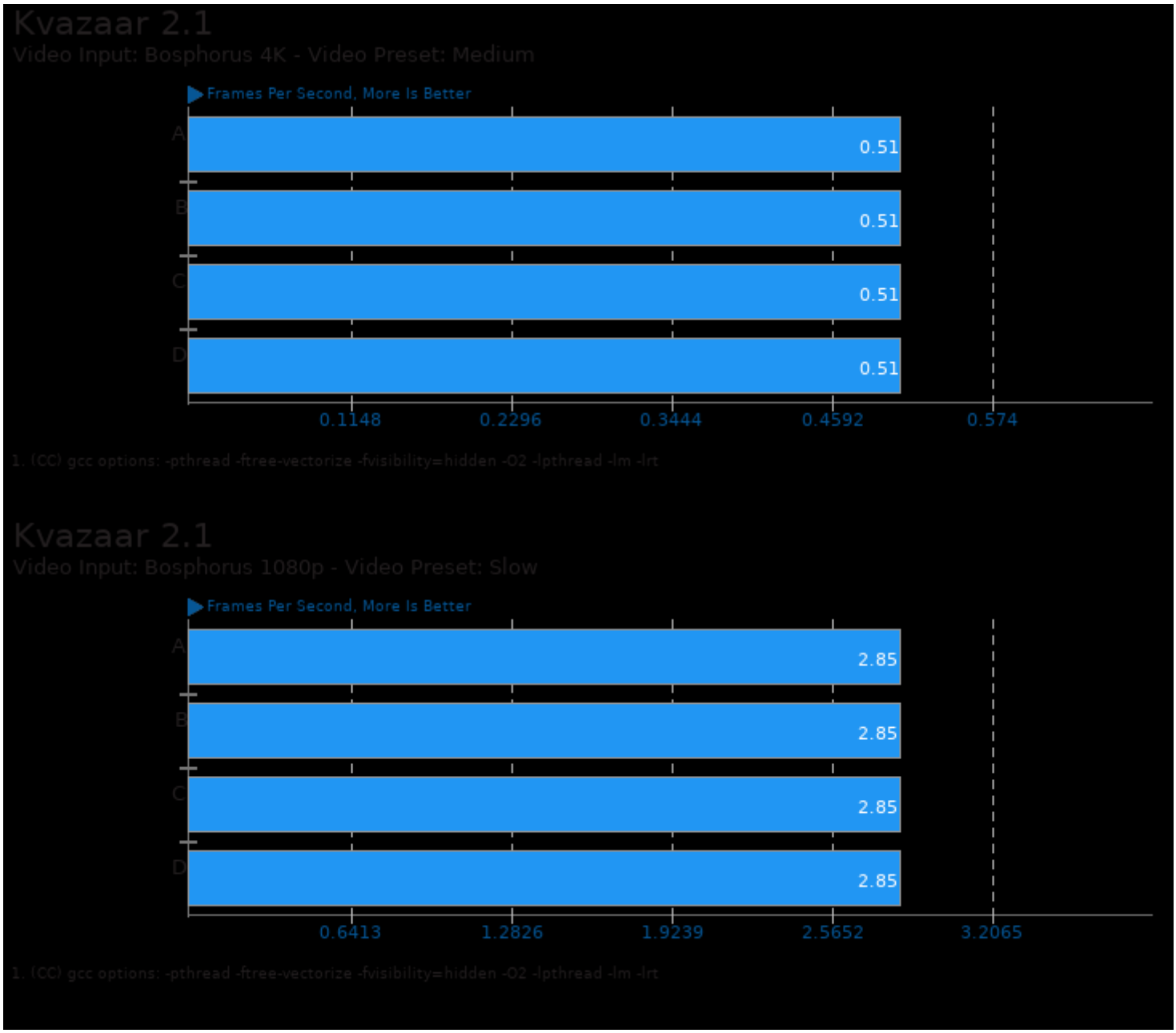

AOM AV1 3.2
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
16.64
B
16.32
C
16.35
D
16.52
4
8
12
16
20
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.2
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
19.25
B
17.98
C
17.98
D
18.37
5
10
15
20
25
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

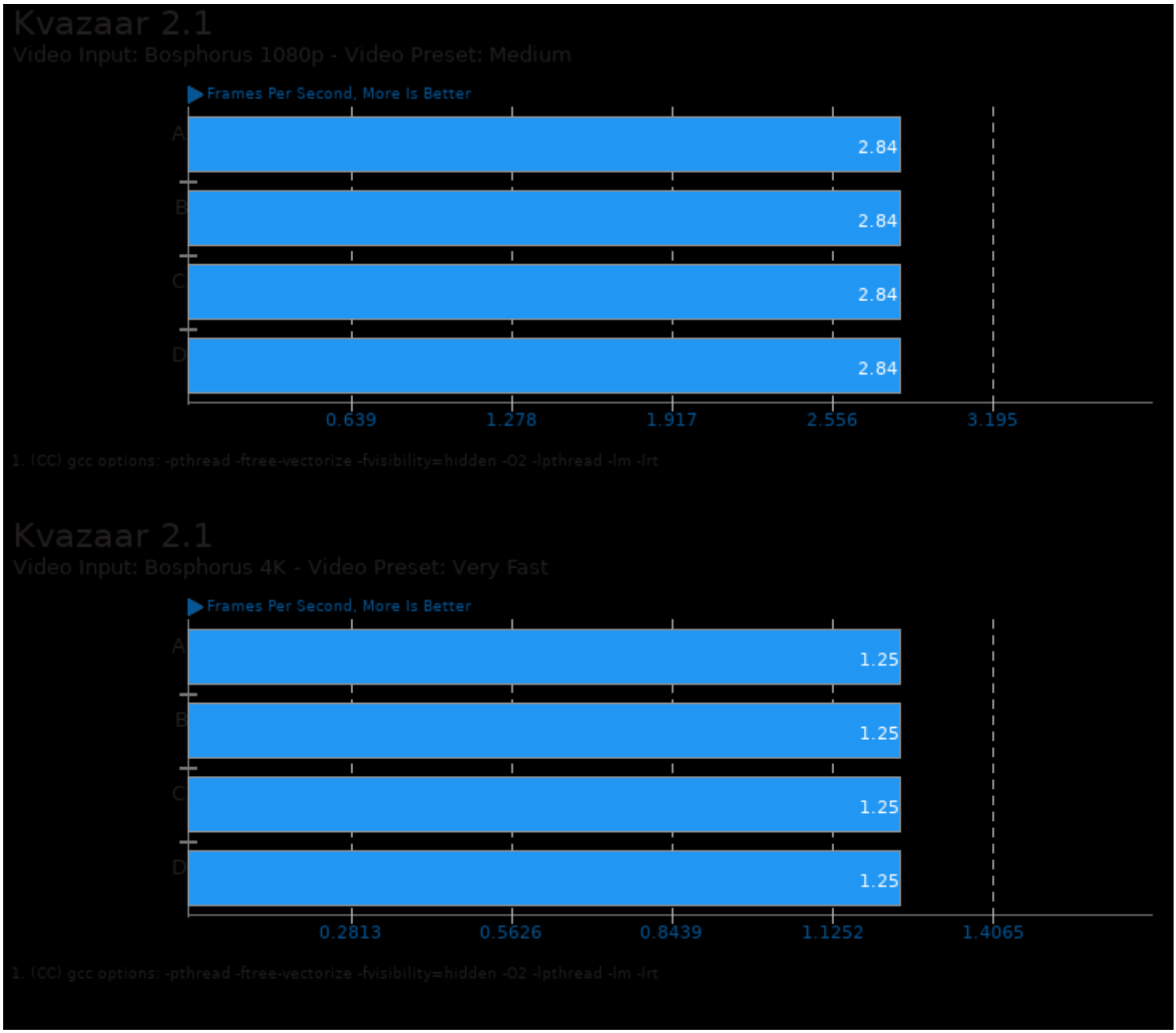

AOM AV1 3.2
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
0.05
0.05
0.05
0.05
0.0113
0.0226
0.0339
0.0452
0.0565
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.2
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
2.10
2.14
2.15
2.15
0.4838
0.9676
1.4514
1.9352
2.419
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

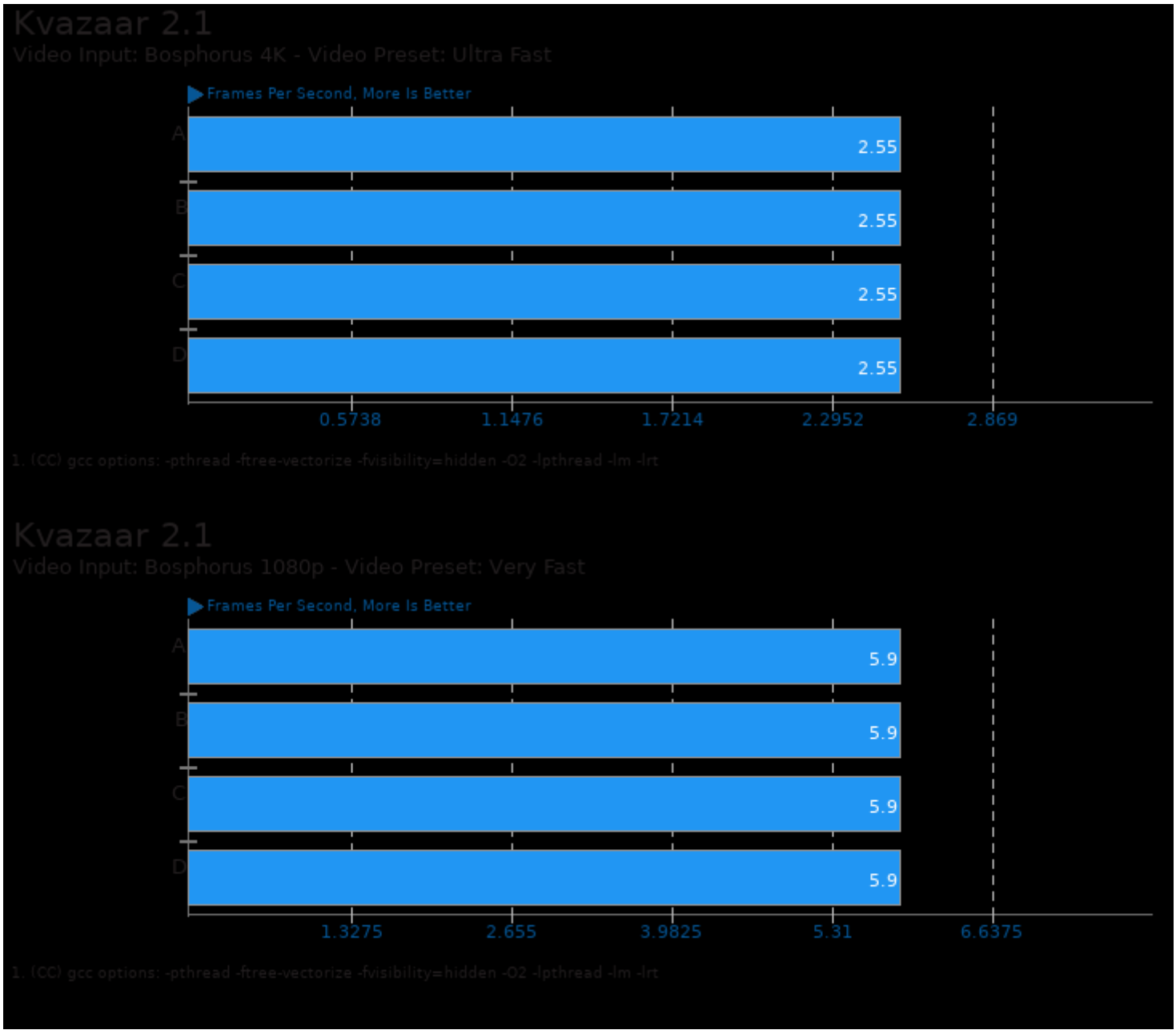

AOM AV1 3.2
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
2.95
2.95
2.94
2.95
0.6638
1.3276
1.9914
2.6552
3.319
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.2
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
5.50
5.49
5.49
5.49
1.2375
2.475
3.7125
4.95
6.1875
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread


AOM AV1 3.2
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
40.35
40.40
40.45
40.31
9
18
27
36
45
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.2
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
48.44
48.51
48.63
48.43
11
22
33
44
55
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread


AOM AV1 3.2
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
B
C
D
58.21
58.18
58.38
58.32
13
26
39
52
65
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Slow
Frames Per Second, More Is Better
A
B
C
D
0.52
0.52
0.52
0.52
0.117
0.234
0.351
0.468
0.585
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

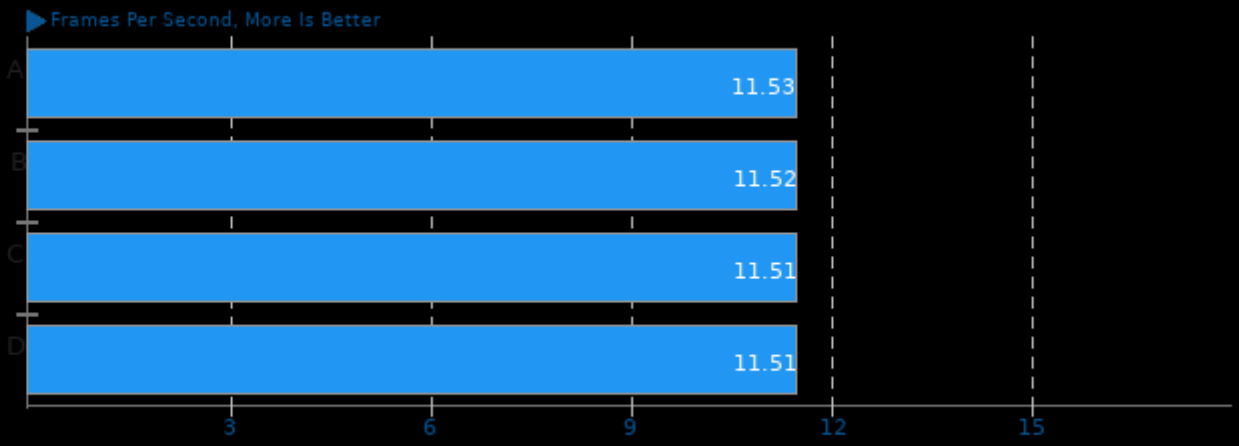

Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Medium
Frames Per Second, More Is Better
A
B
C
D
0.51
0.51
0.51
0.51
0.1148
0.2296
0.3444
0.4592
0.574
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 1080p - Video Preset: Slow
Frames Per Second, More Is Better
A
B
C
D
2.85
2.85
2.85
2.85
0.6413
1.2826
1.9239
2.5652
3.2065
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt


Kvazaar 2.1
Video Input: Bosphorus 1080p - Video Preset: Medium
Frames Per Second, More Is Better
A
B
C
D
2.84
2.84
2.84
2.84
0.639
1.278
1.917
2.556
3.195
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Very Fast
Frames Per Second, More Is Better
A
B
C
D
1.25
1.25
1.25
1.25
0.2813
0.5626
0.8439
1.1252
1.4065
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt


Kvazaar 2.1
Video Input: Bosphorus 4K - Video Preset: Ultra Fast
Frames Per Second, More Is Better
A
B
C
D
2.55
2.55
2.55
2.55
0.5738
1.1476
1.7214
2.2952
2.869
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt
Kvazaar 2.1
Video Input: Bosphorus 1080p - Video Preset: Very Fast
Frames Per Second, More Is Better
A
B
C
D
5.9
5.9
5.9
5.9
1.3275
2.655
3.9825
5.31
6.6375
1. (CC) gcc options: -pthread -ftree-vectorize -fvisibility=hidden -O2 -lpthread -lm -lrt

Kvazaar 2.1

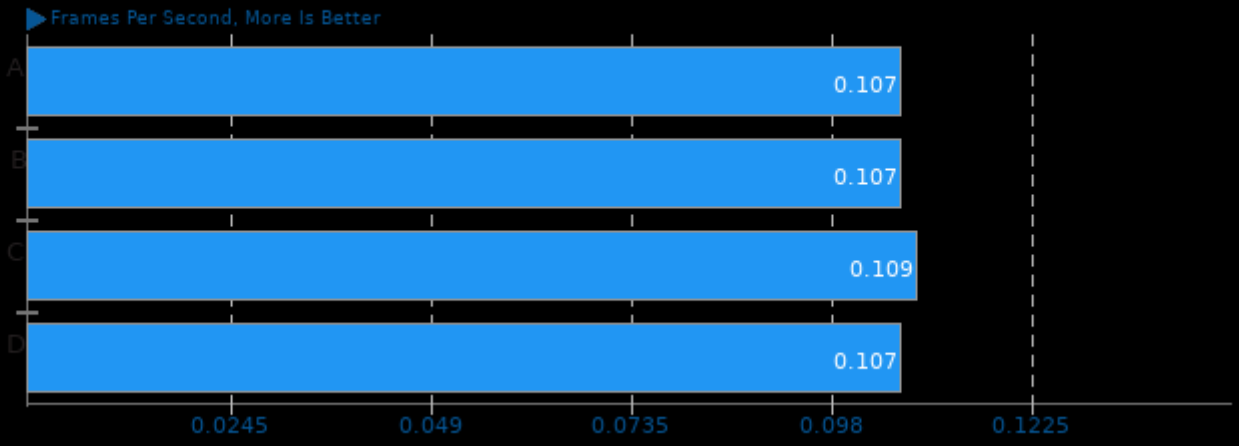
Video Input: Bosphorus 1080p - Video Preset: Ultra Fast



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

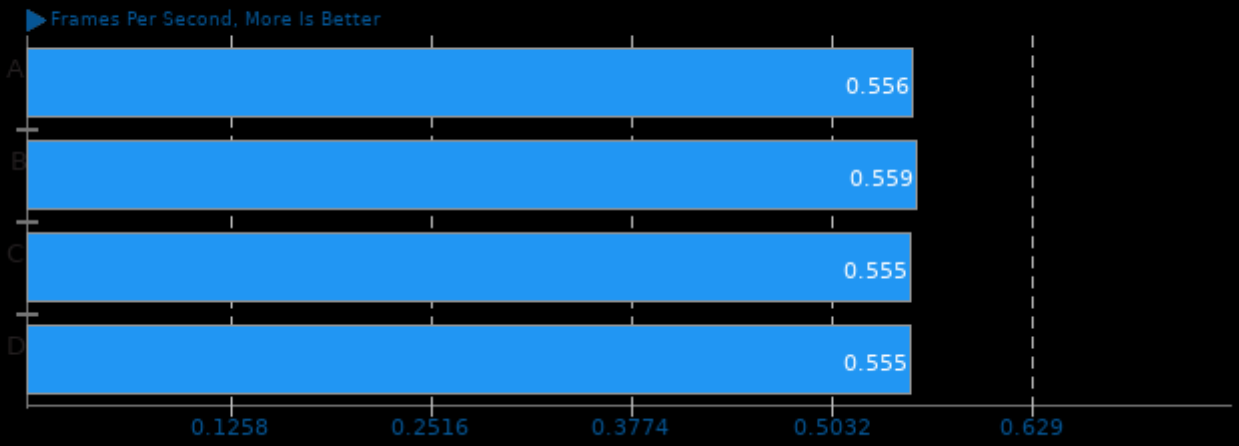
rav1e 0.5

Speed: 1



rav1e 0.5

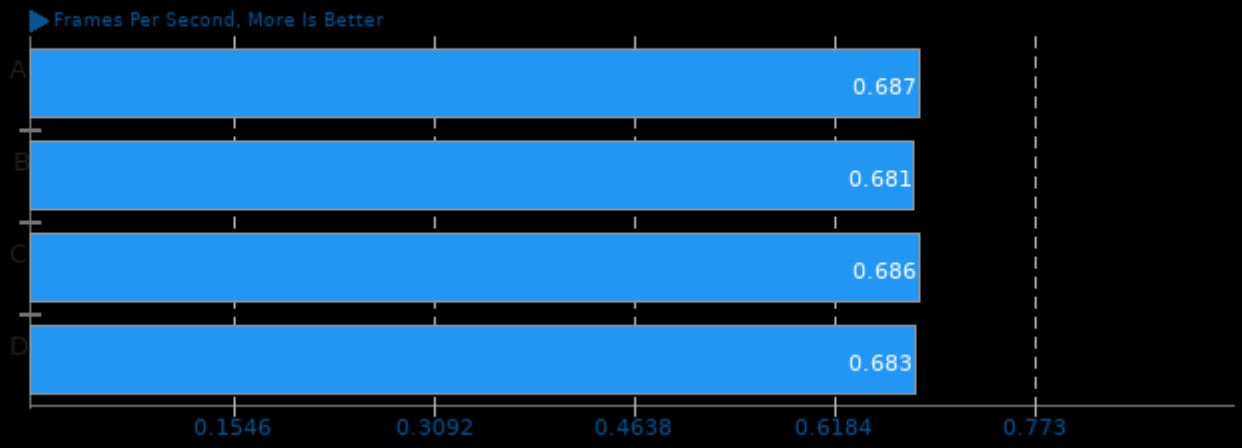
Speed: 5



2700K Nov 2021

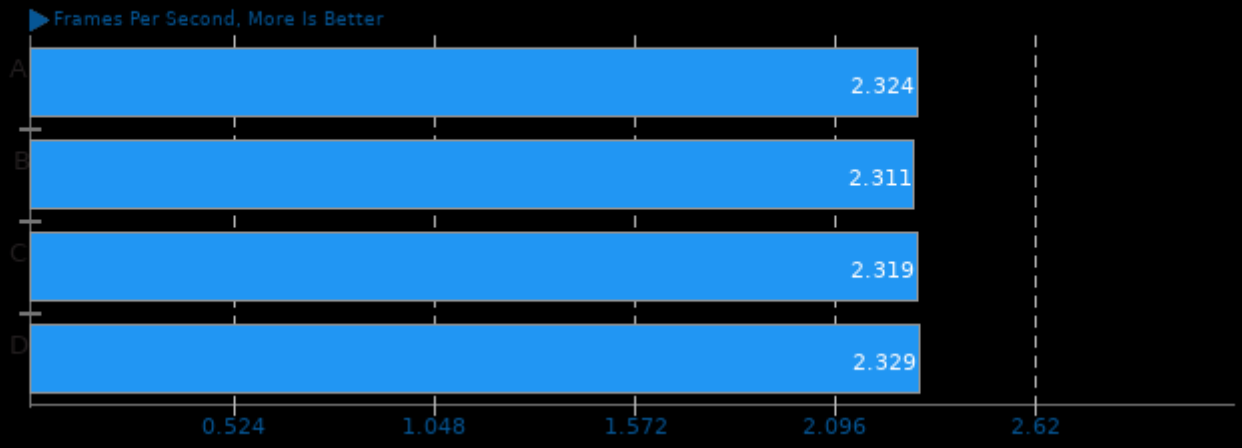
rav1e 0.5

Speed: 6



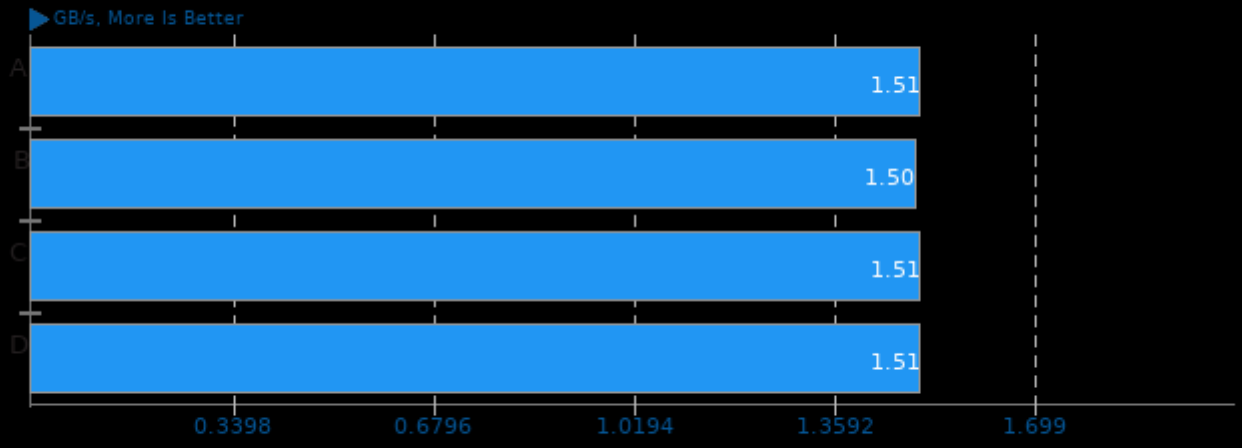
rav1e 0.5

Speed: 10

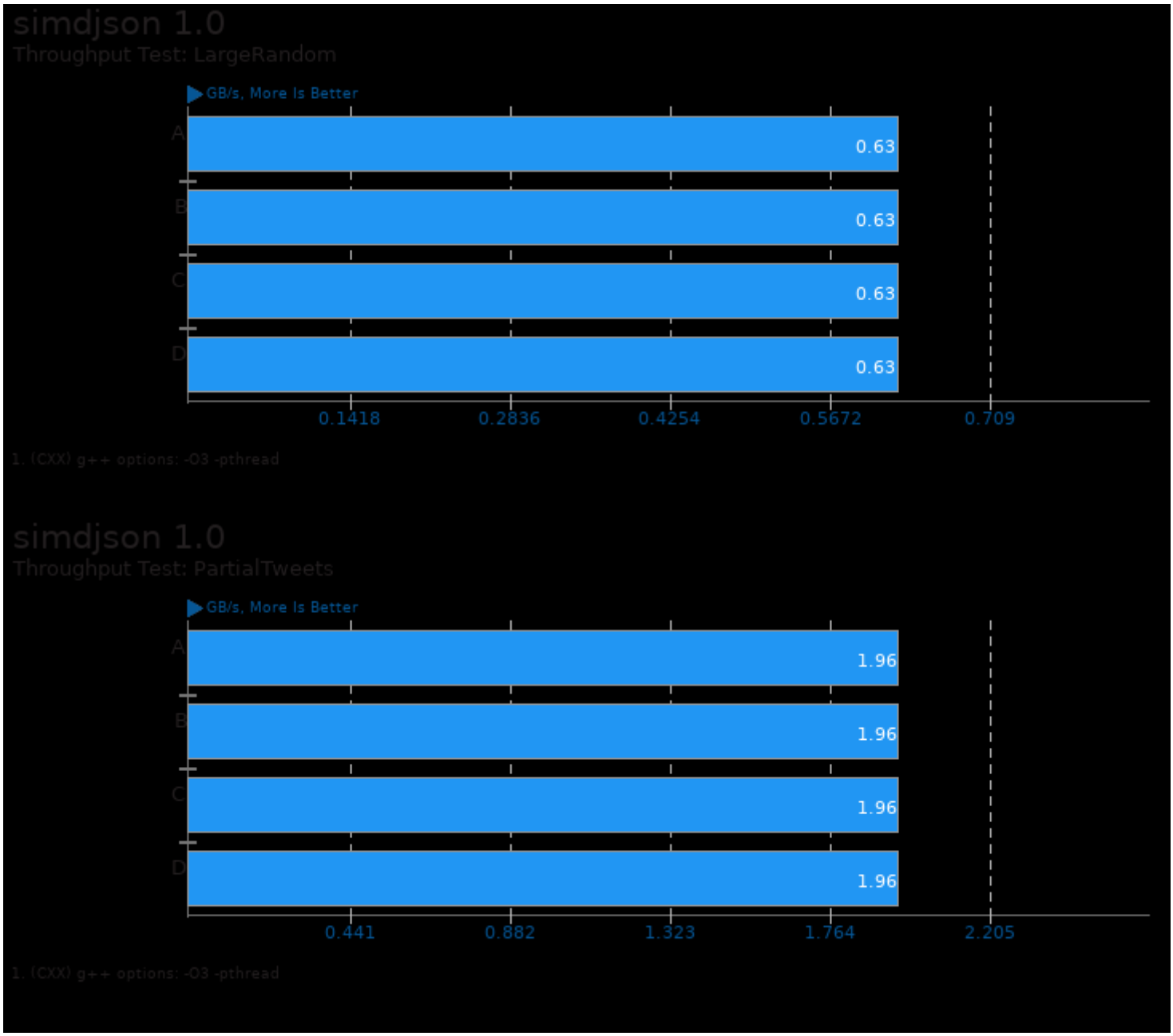


simdjson 1.0

Throughput Test: Kostya

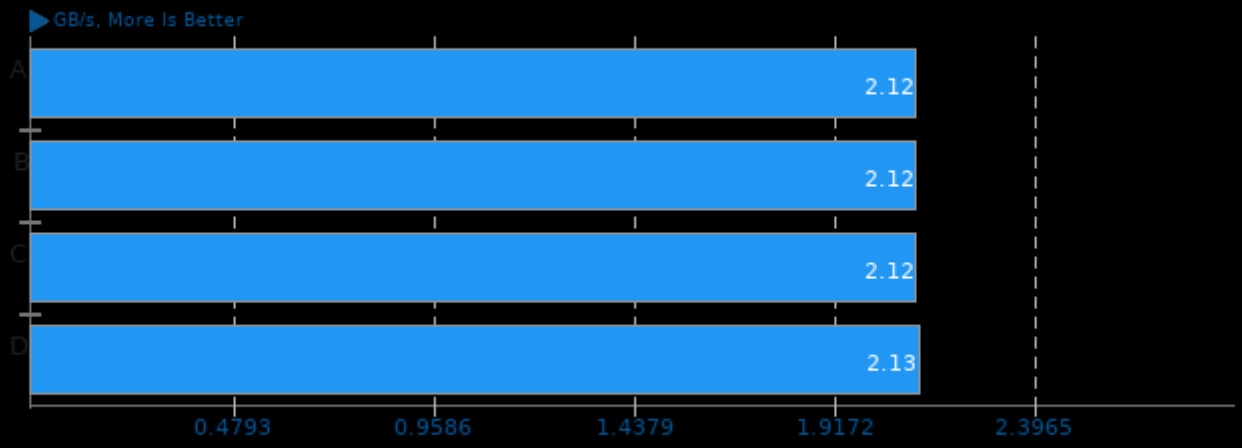


1. (CXX) g++ options: -O3 -pthread


simdjson 1.0
Throughput Test: LargeRandom
GB/s, More Is Better
A
B
C
D
0.63
0.63
0.63
0.63
0.1418
0.2836
0.4254
0.5672
0.709
1. (CXX) g++ options: -O3 -pthread
simdjson 1.0
Throughput Test: PartialTweets
GB/s, More Is Better
A
B
C
D
1.96
1.96
1.96
1.96
0.441
0.882
1.323
1.764
2.205
1. (CXX) g++ options: -O3 -pthread

simdjson 1.0

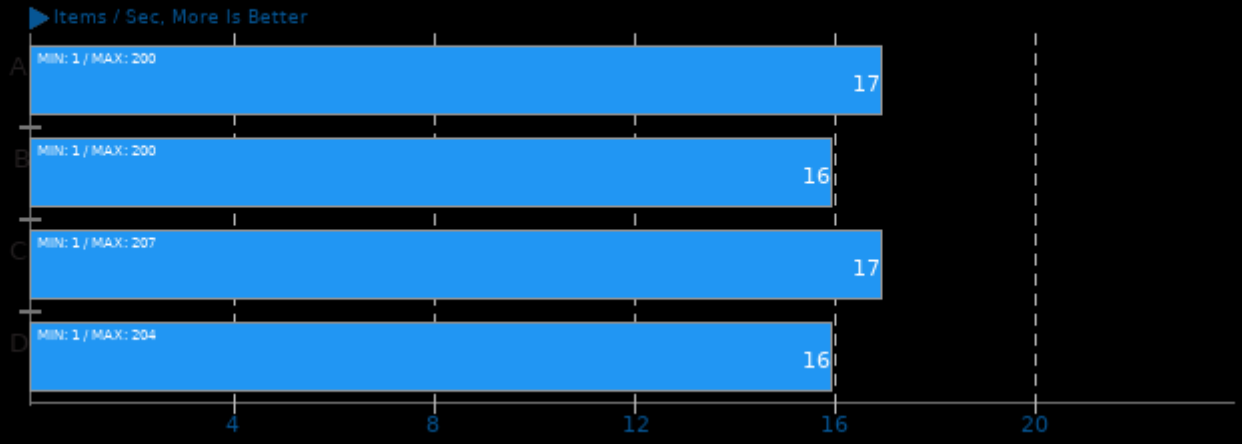
Throughput Test: DistinctUserID



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

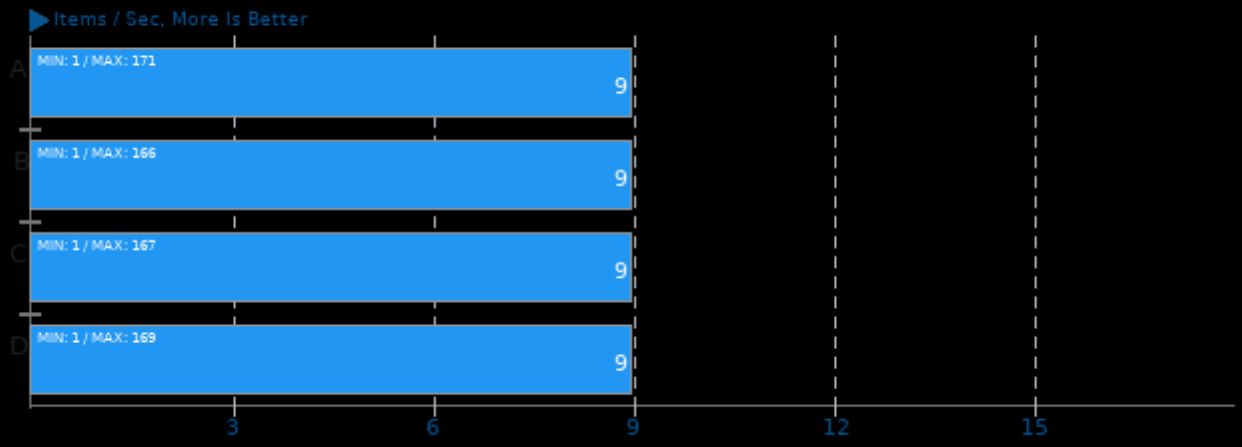
OpenVKL 1.0

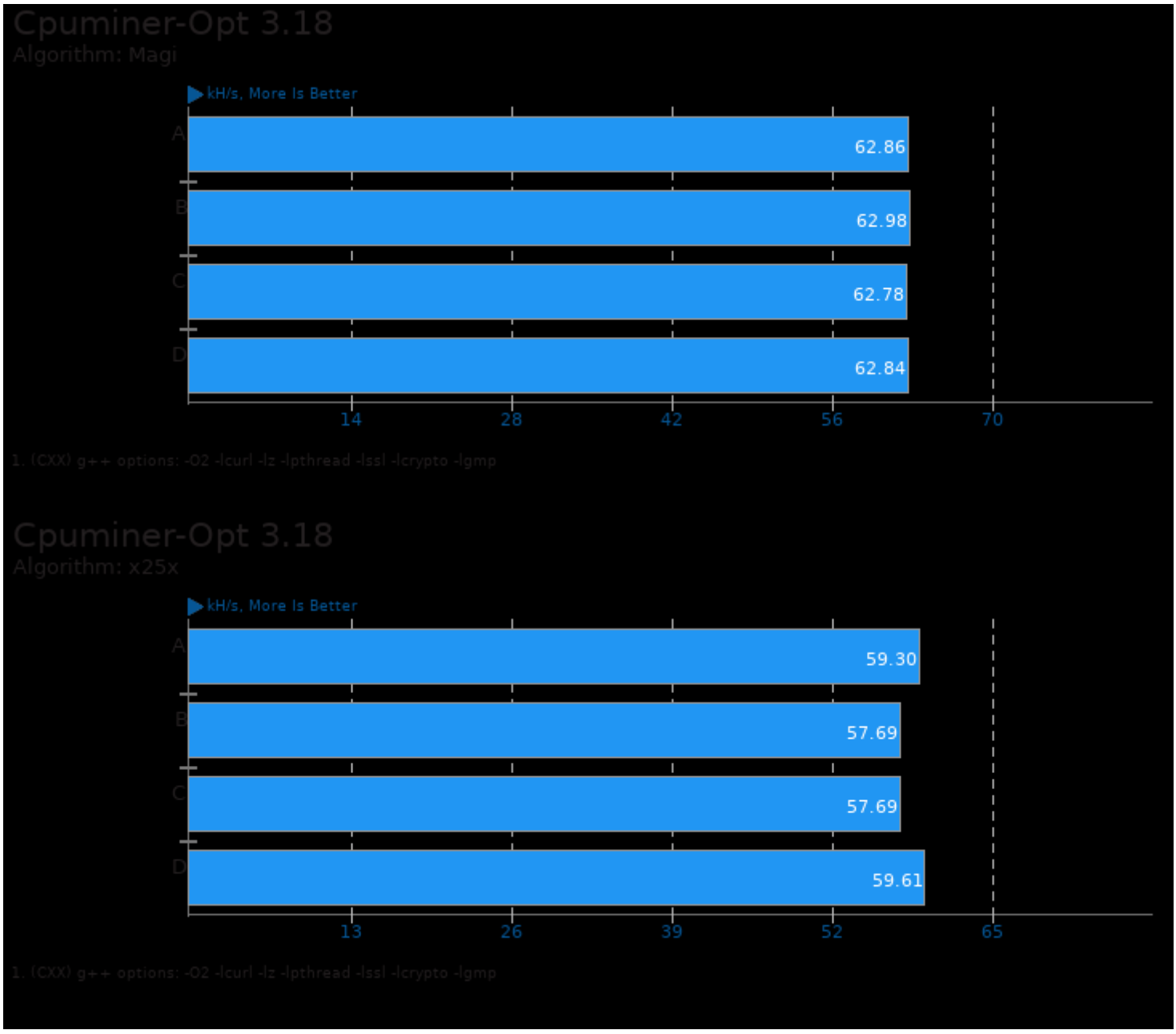
Benchmark: vklBenchmark ISPC

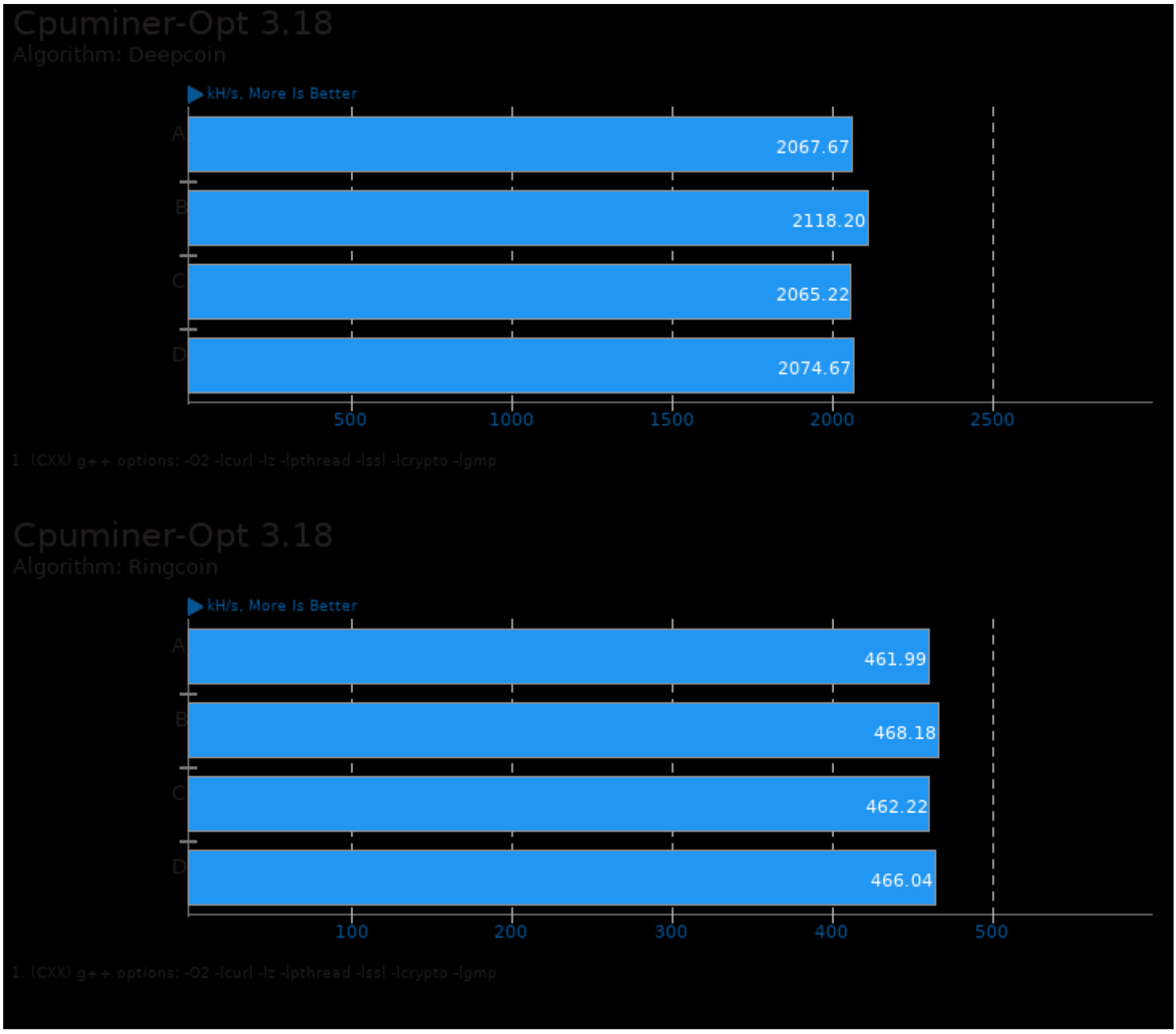


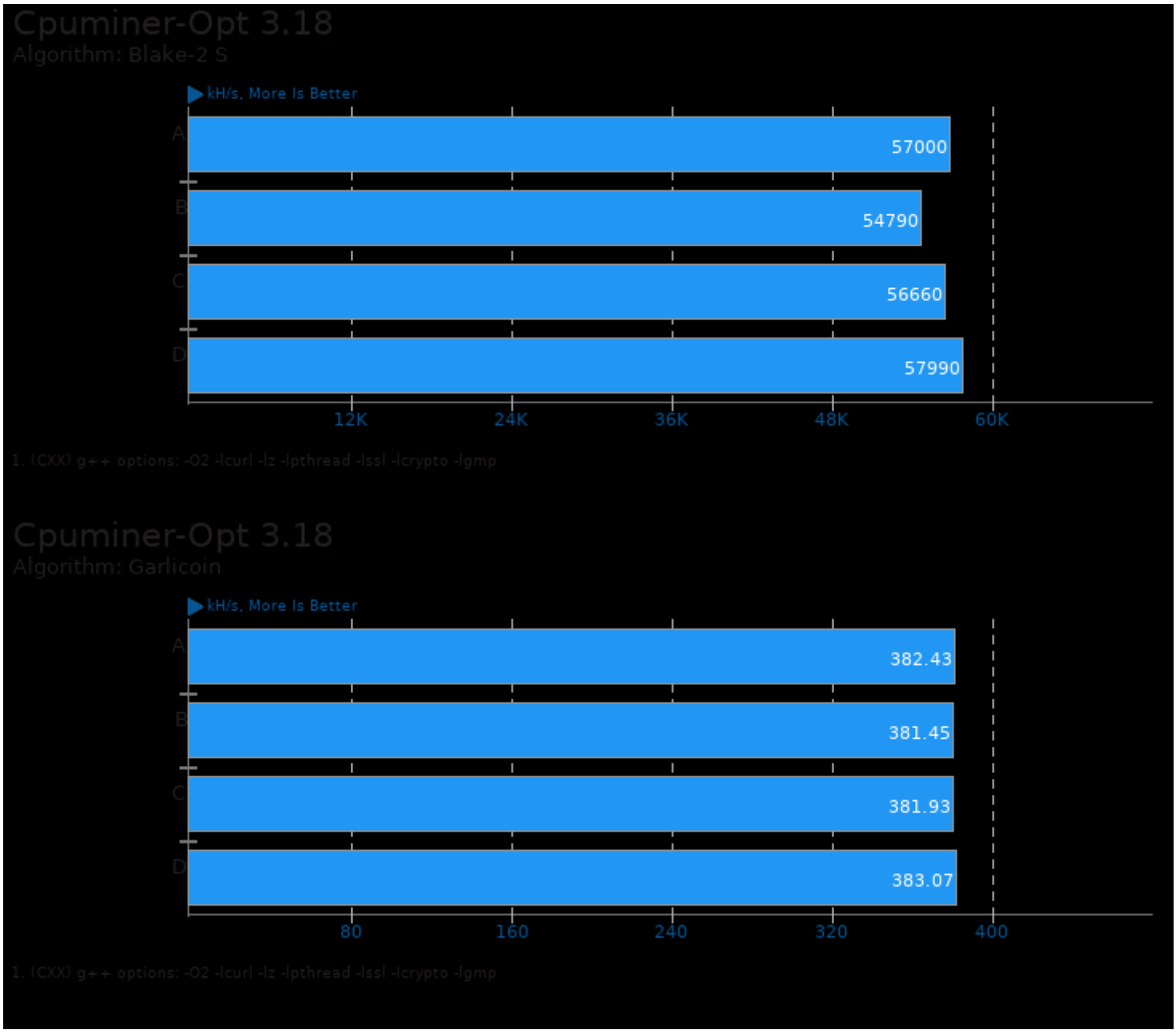
OpenVKL 1.0

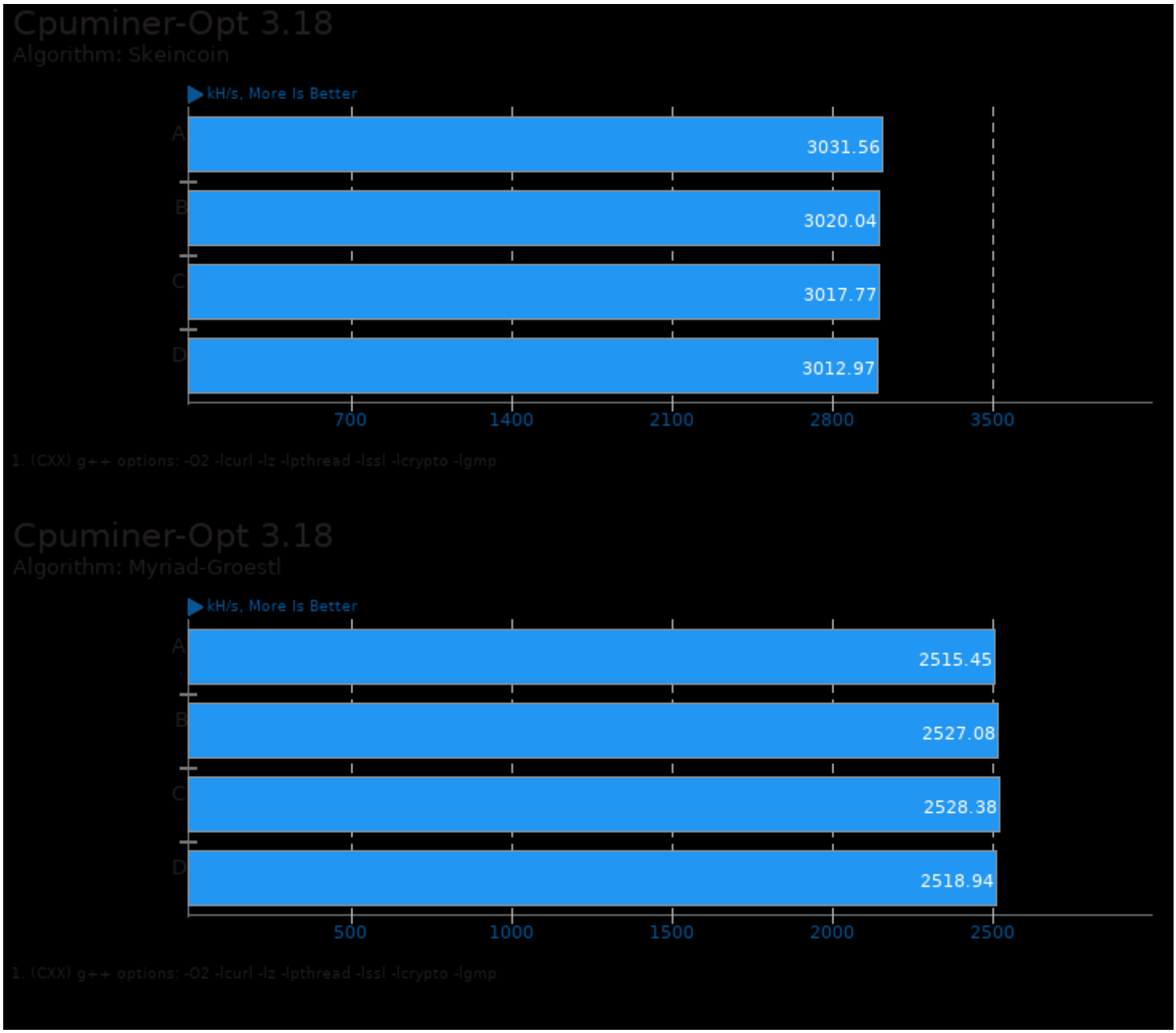
Benchmark: vklBenchmark Scalar

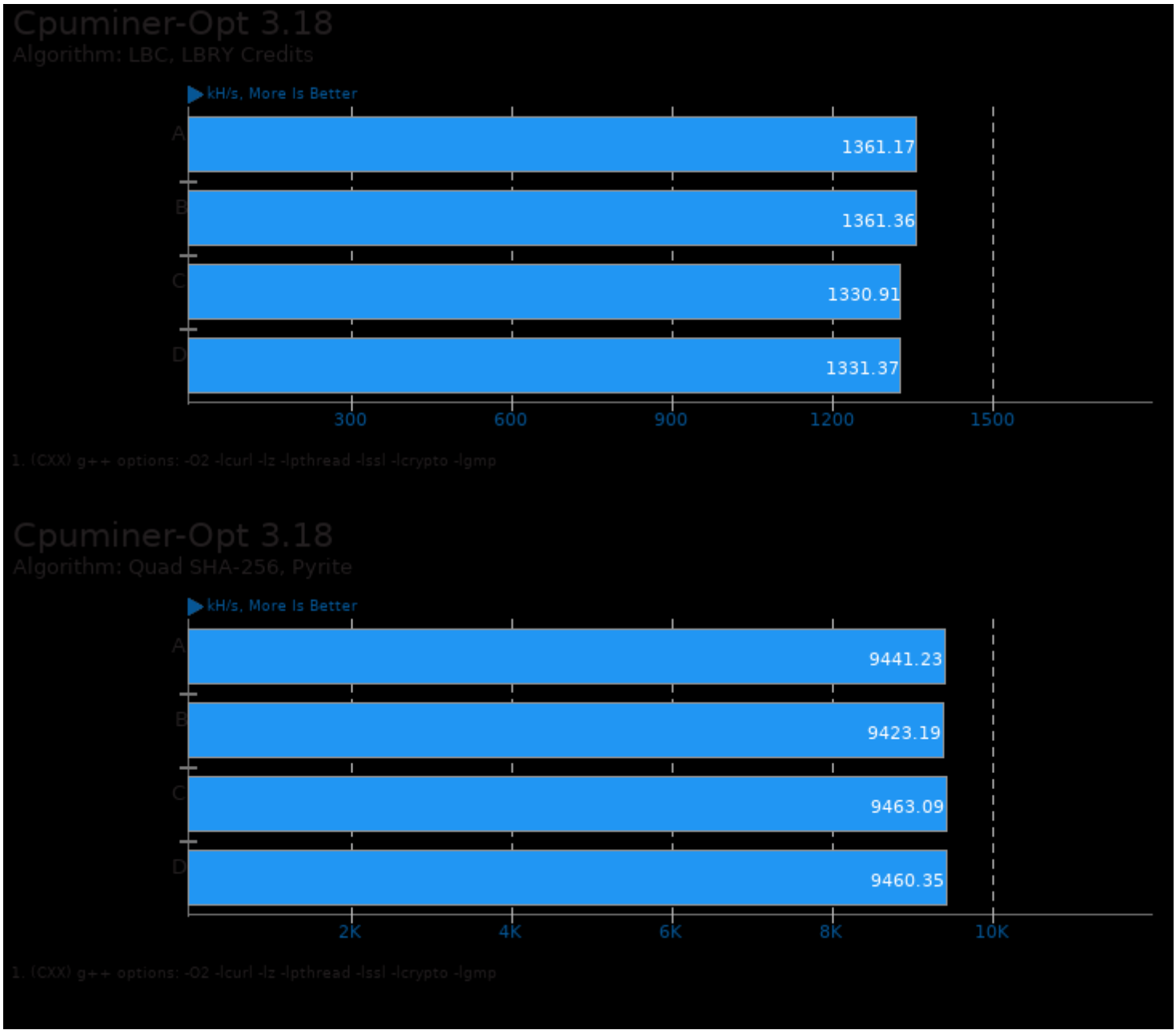



Cpuminer-Opt 3.18
Algorithm: Magi
kH/s, More Is Better
A
B
C
D
62.86
62.98
62.78
62.84
14
28
42
56
70
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: x25x
kH/s, More Is Better
A
B
C
D
59.30
57.69
57.69
59.61
13
26
39
52
65
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp


Cpuminer-Opt 3.18
Algorithm: Deepcoin
kH/s, More Is Better
A
2067.67
B
2118.20
C
2065.22
D
2074.67
500
1000
1500
2000
2500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: Ringcoin
kH/s, More Is Better
A
461.99
B
468.18
C
462.22
D
466.04
100
200
300
400
500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

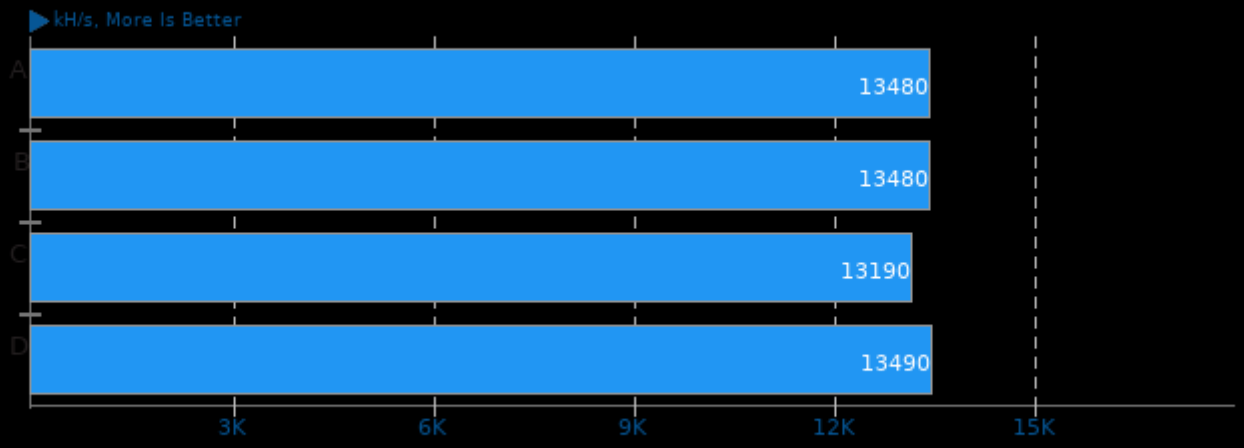

Cpuminer-Opt 3.18
Algorithm: Blake-2 S
kH/s, More Is Better
A
57000
B
54790
C
56660
D
57990
12K
24K
36K
48K
60K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: Garlicoin
kH/s, More Is Better
A
382.43
B
381.45
C
381.93
D
383.07
80
160
240
320
400
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp


Cpuminer-Opt 3.18
Algorithm: Skeincoin
kH/s, More Is Better
A
3031.56
B
3020.04
C
3017.77
D
3012.97
700
1400
2100
2800
3500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: Myriad-Groestl
kH/s, More Is Better
A
2515.45
B
2527.08
C
2528.38
D
2518.94
500
1000
1500
2000
2500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp


Cpuminer-Opt 3.18
Algorithm: LBC, LBRY Credits
kH/s, More Is Better
A
1361.17
B
1361.36
C
1330.91
D
1331.37
300
600
900
1200
1500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.18
Algorithm: Quad SHA-256, Pyrite
kH/s, More Is Better
A
9441.23
B
9423.19
C
9463.09
D
9460.35
2K
4K
6K
8K
10K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

Cpuminer-Opt 3.18

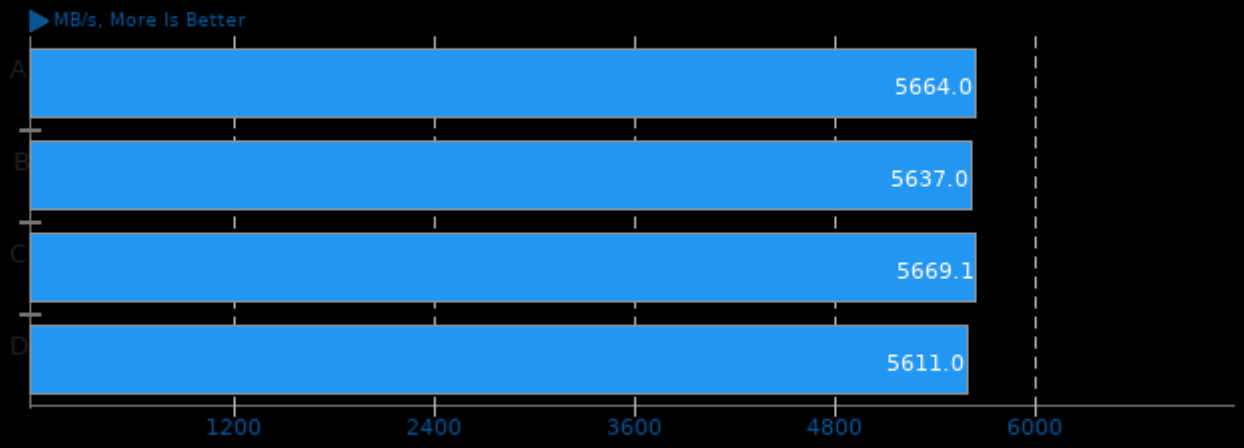
Algorithm: Triple SHA-256, Onecoin



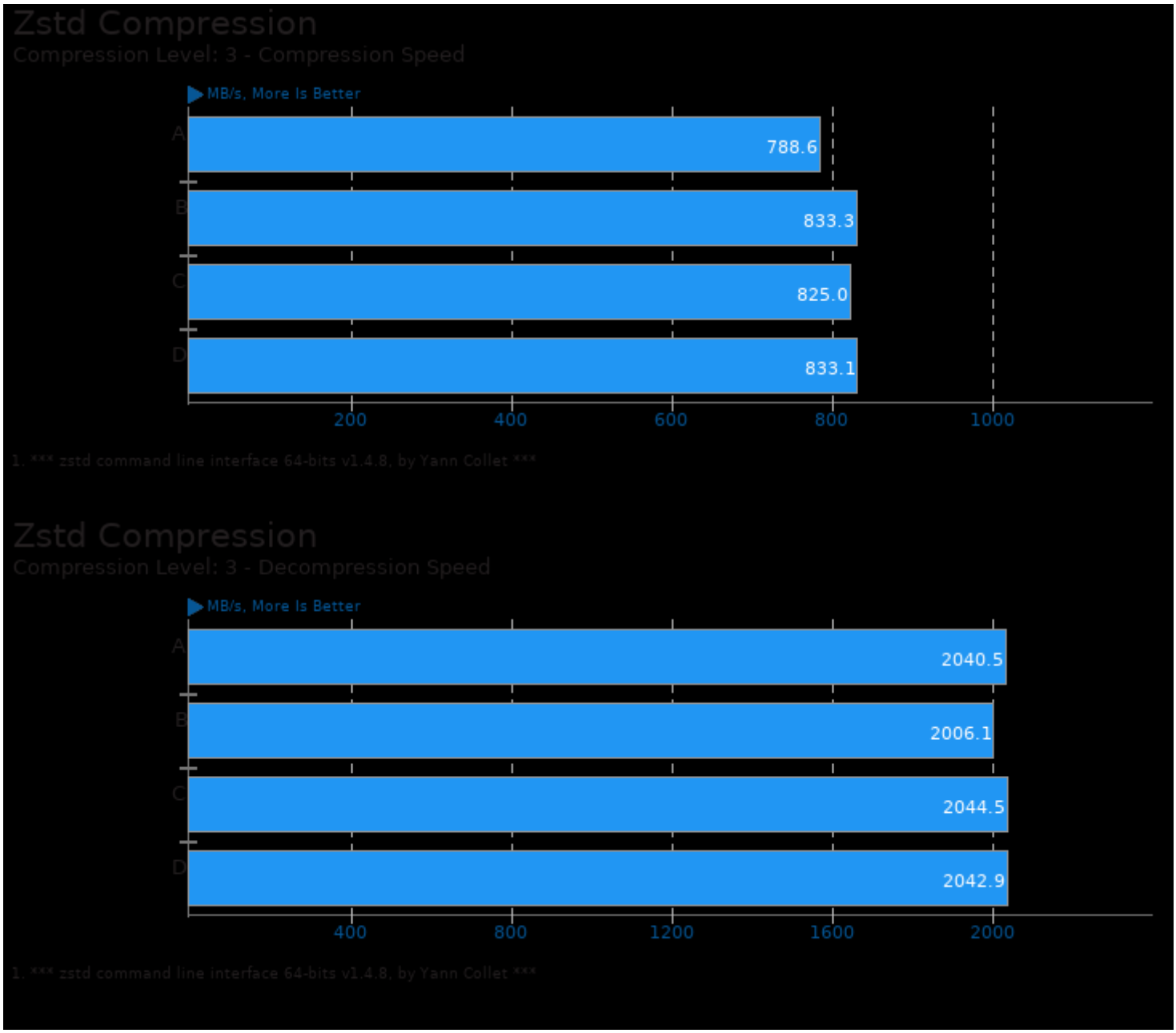
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

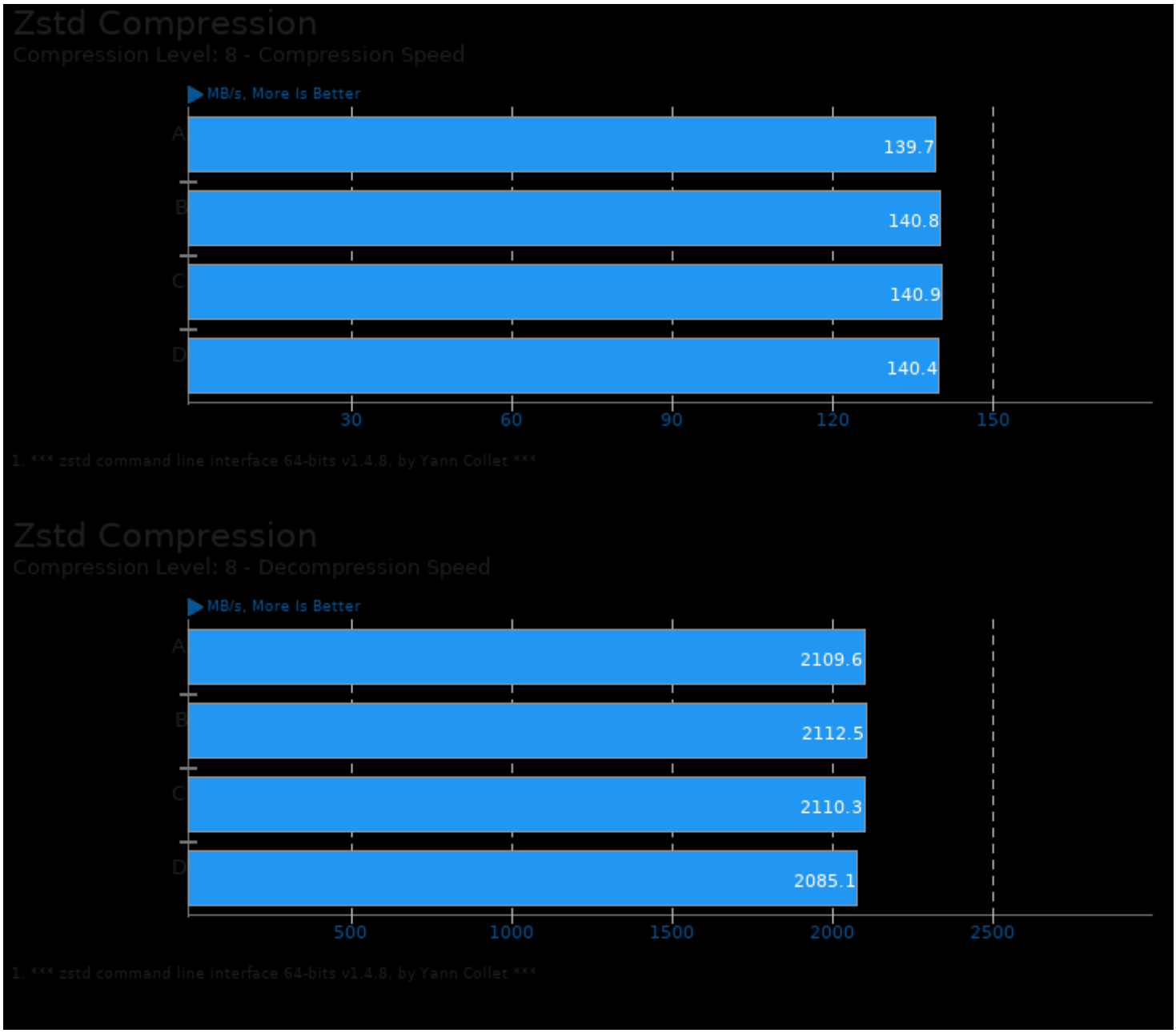
C-Blosc 2.0

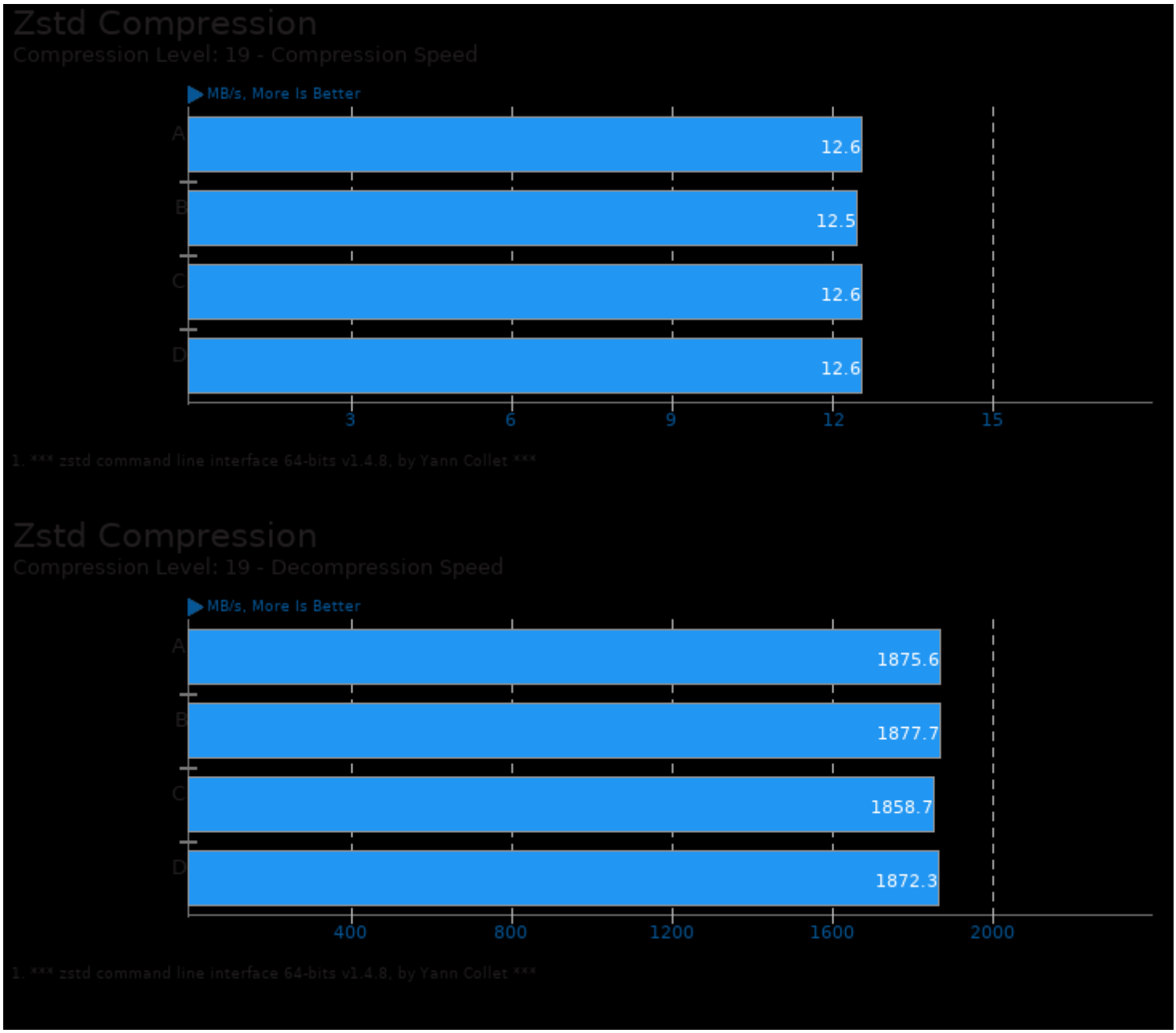
Compressor: blosclz

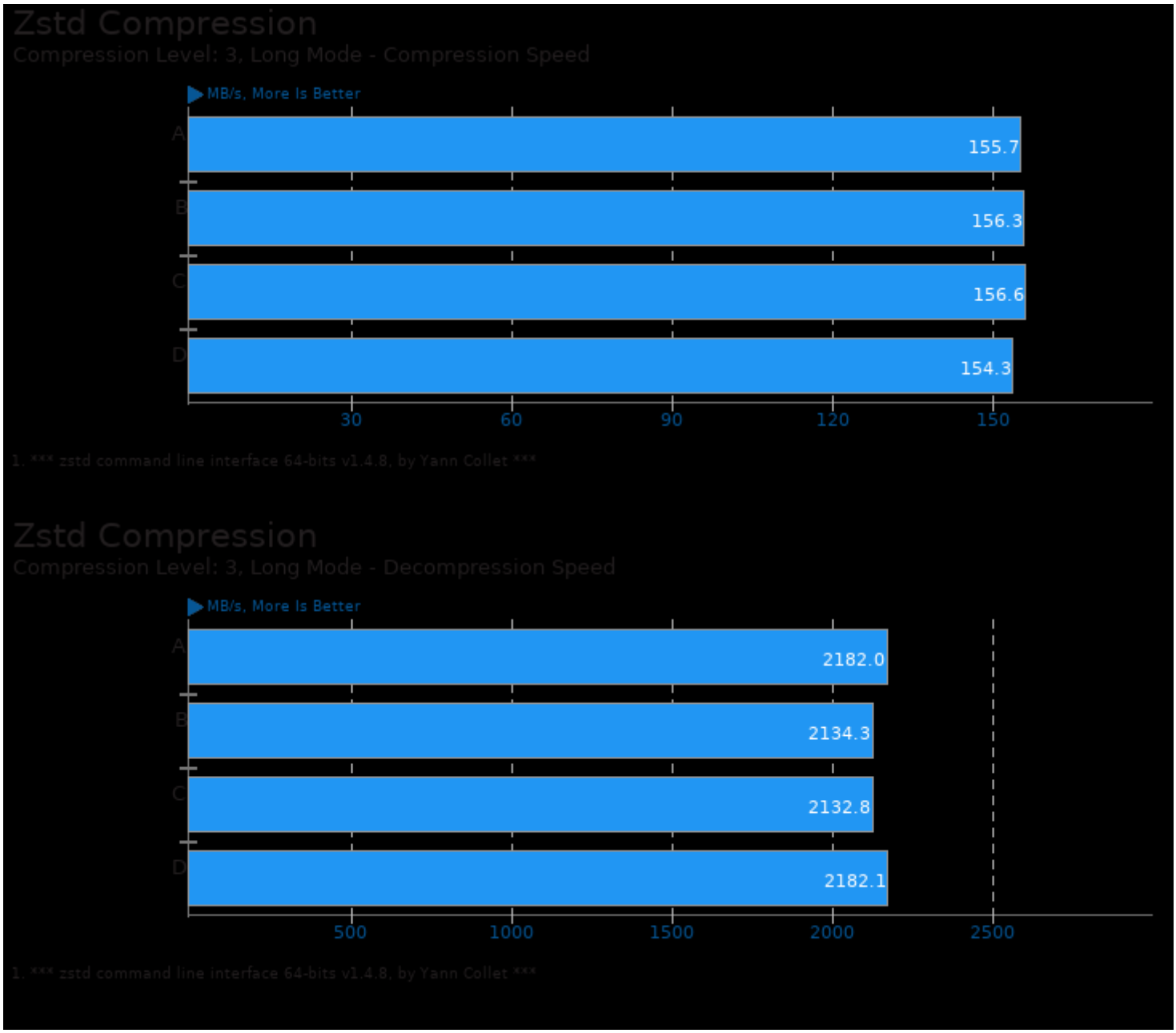


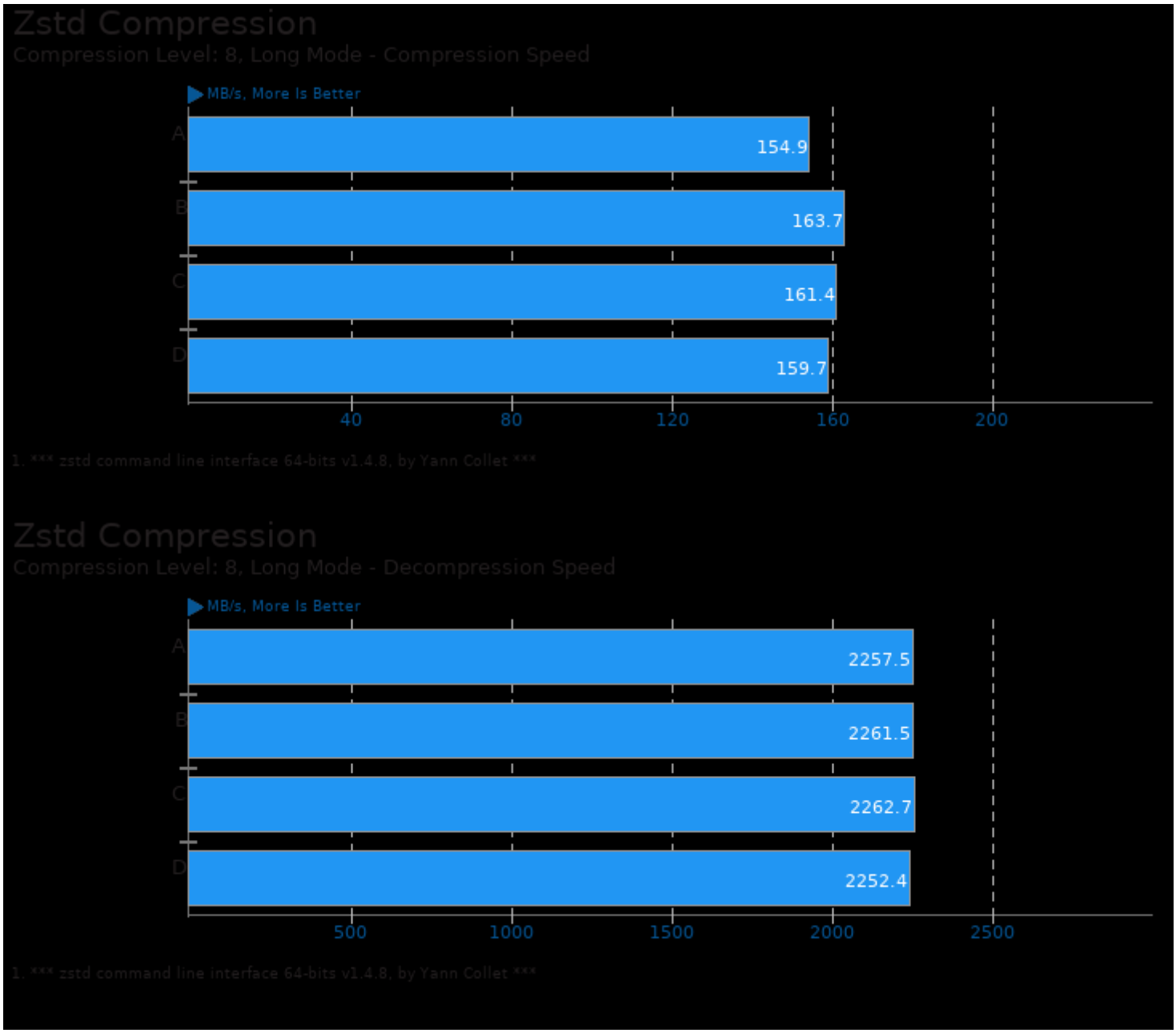
1. (CC) gcc options: -std=gnu99 -O3 -pthread -lrt -lm

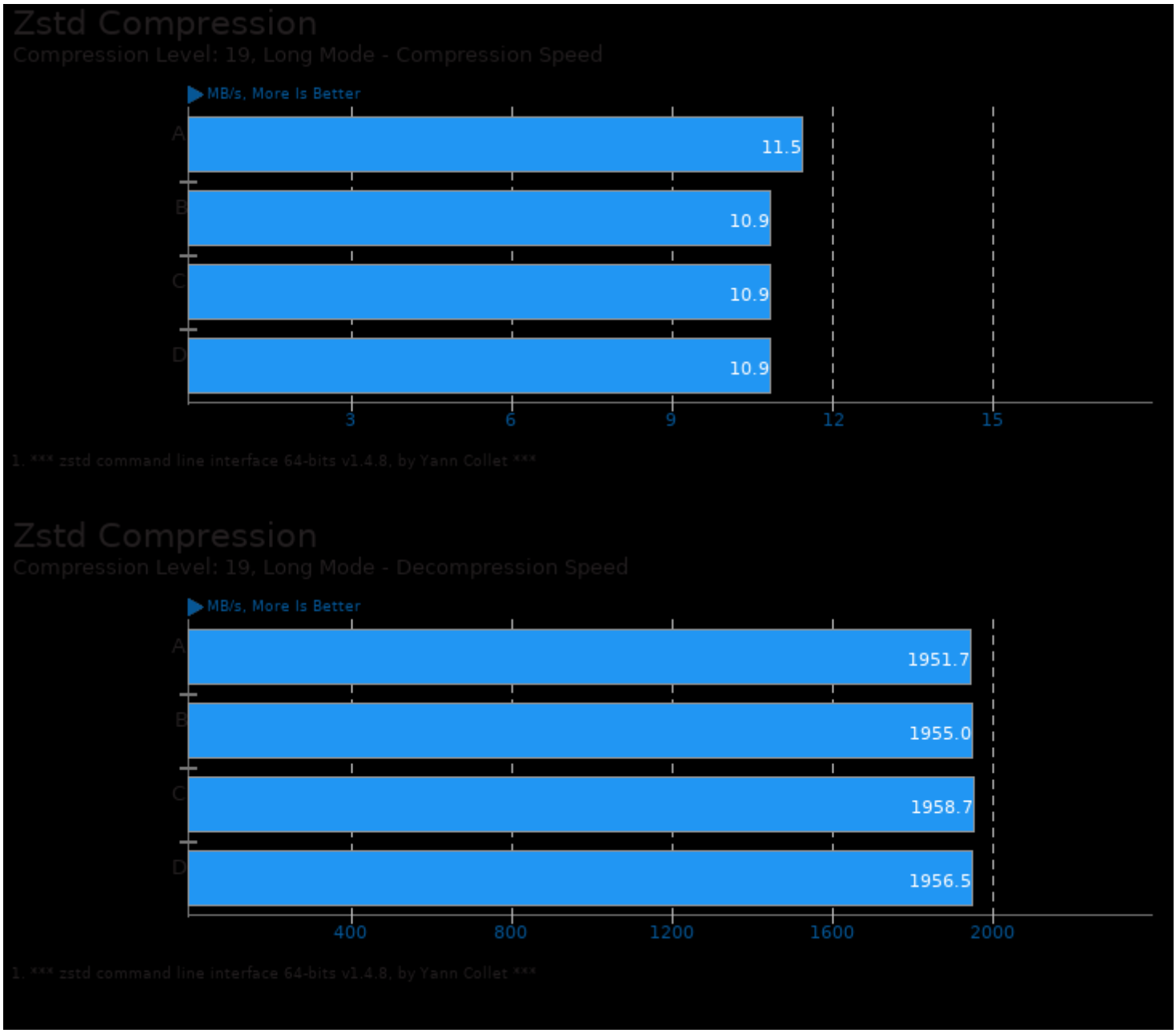

Zstd Compression
Compression Level: 3 - Compression Speed
MB/s, More Is Better
A
788.6
B
833.3
C
825.0
D
833.1
200
400
600
800
1000
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***
Zstd Compression
Compression Level: 3 - Decompression Speed
MB/s, More Is Better
A
2040.5
B
2006.1
C
2044.5
D
2042.9
400
800
1200
1600
2000
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***

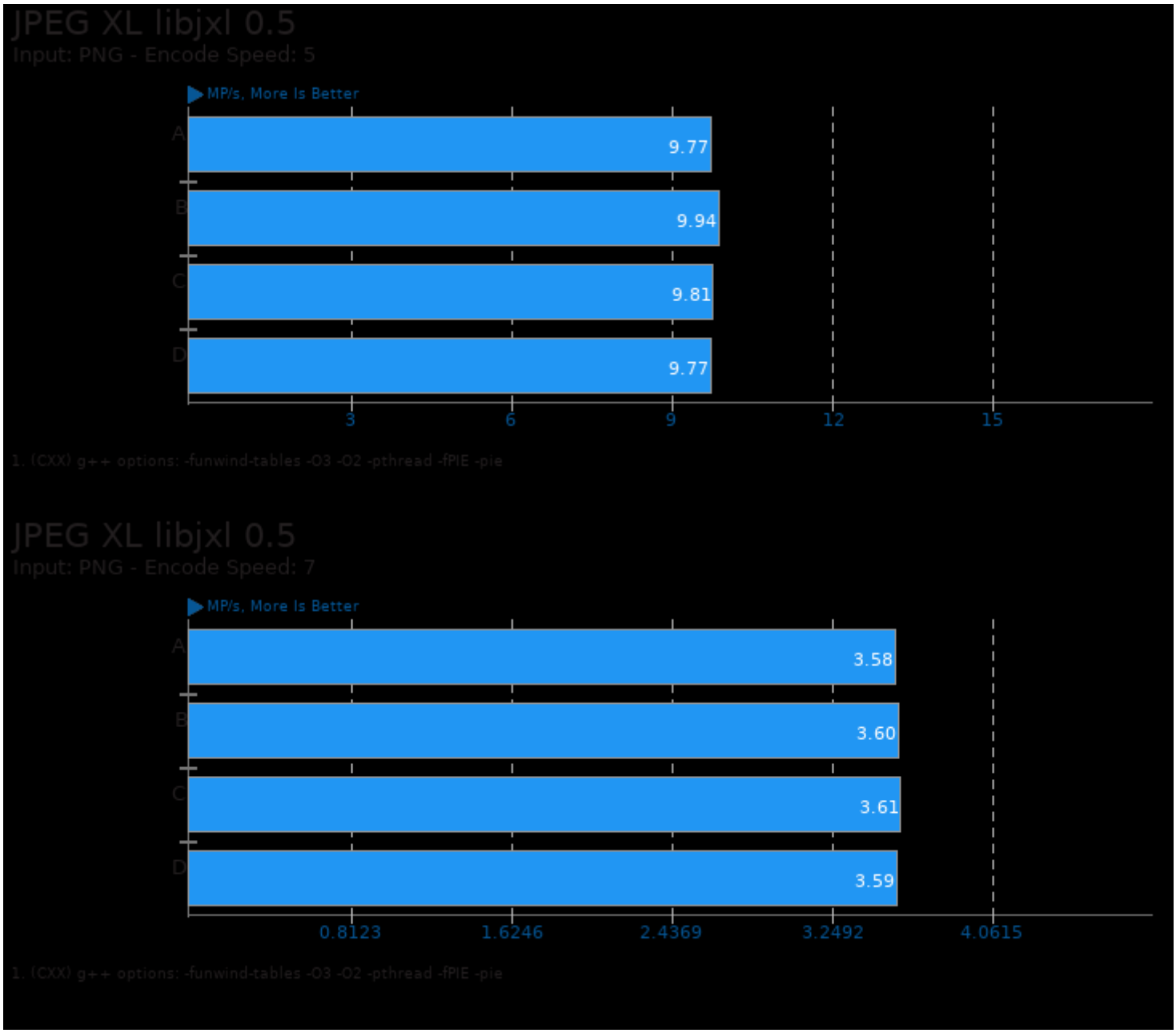

Zstd Compression
Compression Level: 8 - Compression Speed
MB/s, More Is Better
A
B
C
D
139.7
140.8
140.9
140.4
30
60
90
120
150
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***
Zstd Compression
Compression Level: 8 - Decompression Speed
MB/s, More Is Better
A
B
C
D
2109.6
2112.5
2110.3
2085.1
500
1000
1500
2000
2500
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***

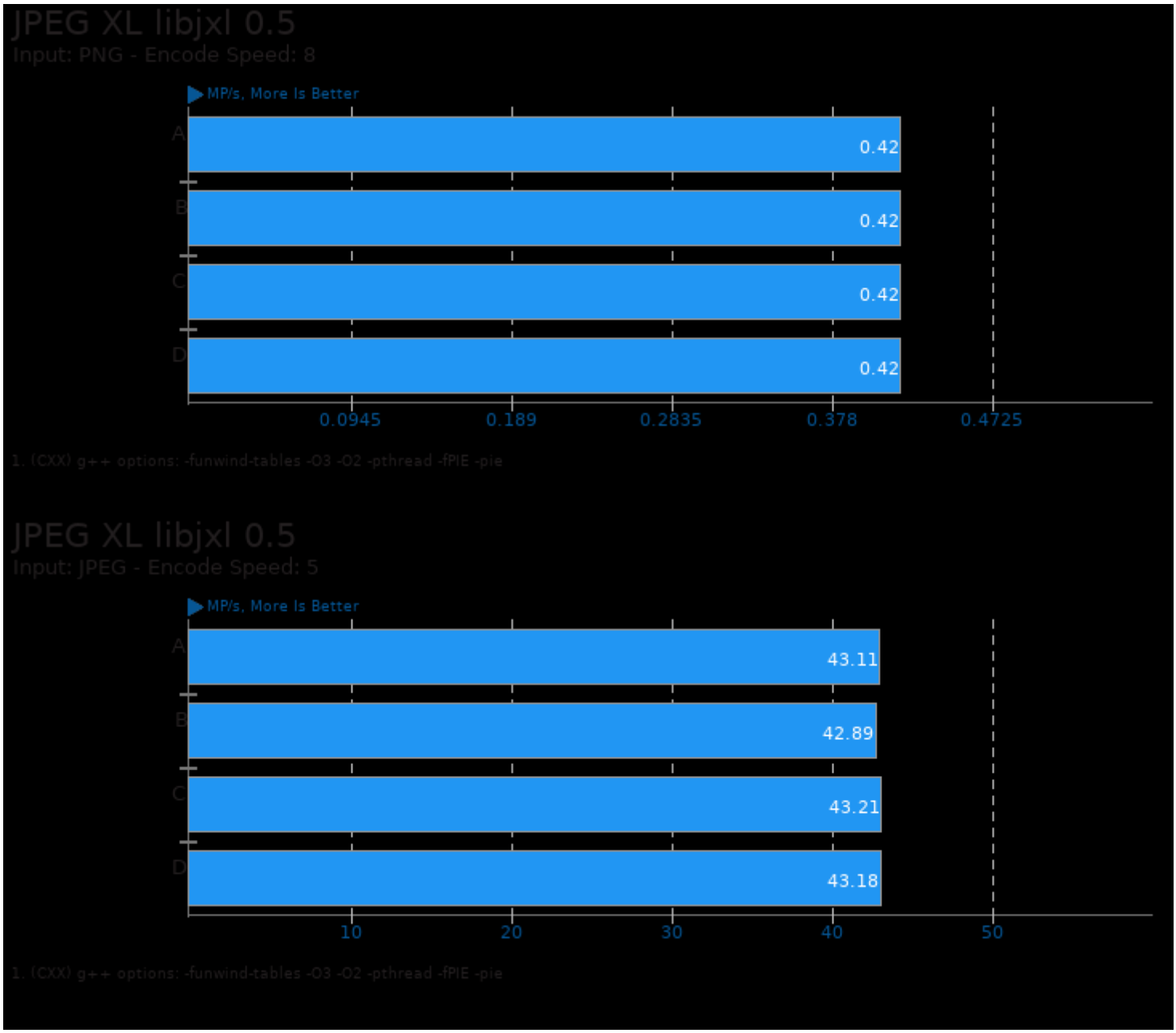

Zstd Compression
Compression Level: 19 - Compression Speed
MB/s, More Is Better
A
B
C
D
12.6
12.5
12.6
12.6
3
6
9
12
15
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***
Zstd Compression
Compression Level: 19 - Decompression Speed
MB/s, More Is Better
A
B
C
D
1875.6
1877.7
1858.7
1872.3
400
800
1200
1600
2000
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***


Zstd Compression
Compression Level: 3, Long Mode - Compression Speed
MB/s, More Is Better
A
B
C
D
155.7
156.3
156.6
154.3
30
60
90
120
150
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***
Zstd Compression
Compression Level: 3, Long Mode - Decompression Speed
MB/s, More Is Better
A
B
C
D
2182.0
2134.3
2132.8
2182.1
500
1000
1500
2000
2500
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***


Zstd Compression
Compression Level: 8, Long Mode - Compression Speed
MB/s, More Is Better
A
B
C
D
154.9
163.7
161.4
159.7
40
80
120
160
200
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***
Zstd Compression
Compression Level: 8, Long Mode - Decompression Speed
MB/s, More Is Better
A
B
C
D
2257.5
2261.5
2262.7
2252.4
500
1000
1500
2000
2500
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***

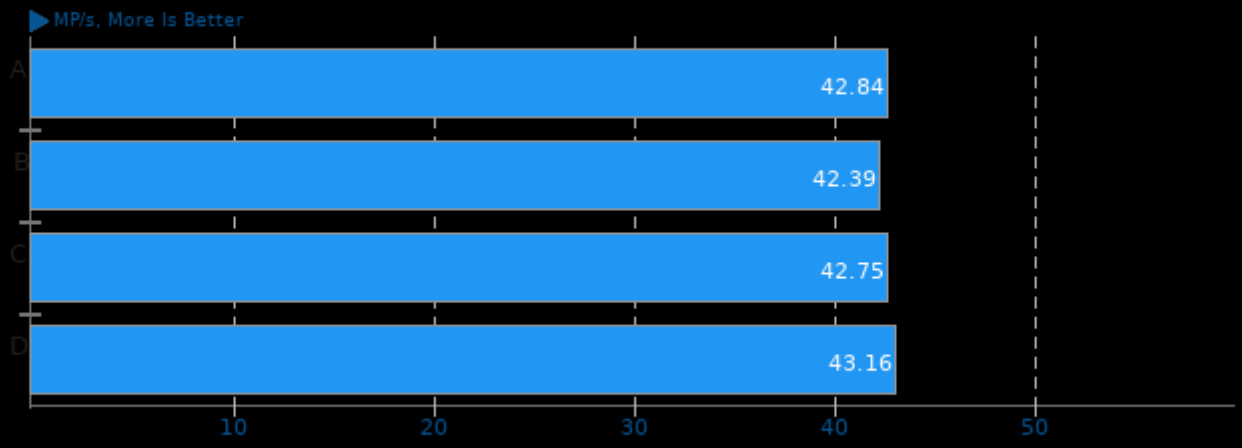

Zstd Compression
Compression Level: 19, Long Mode - Compression Speed
MB/s, More Is Better
A
B
C
D
11.5
10.9
10.9
10.9
3
6
9
12
15
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***
Zstd Compression
Compression Level: 19, Long Mode - Decompression Speed
MB/s, More Is Better
A
B
C
D
1951.7
1955.0
1958.7
1956.5
400
800
1200
1600
2000
1. *** zstd command line interface 64-bits v1.4.8, by Yann Collet ***


JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 5
MP/s, More Is Better
A
B
C
D
9.77
9.94
9.81
9.77
3
6
9
12
15
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie
JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 7
MP/s, More Is Better
A
B
C
D
3.58
3.60
3.61
3.59
0.8123
1.6246
2.4369
3.2492
4.0615
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie


JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 8
MP/s, More Is Better
A
B
C
D
0.42
0.42
0.42
0.42
0.0945
0.189
0.2835
0.378
0.4725
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie
JPEG XL libjxl 0.5
Input: JPEG - Encode Speed: 5
MP/s, More Is Better
A
B
C
D
43.11
42.89
43.21
43.18
10
20
30
40
50
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

JPEG XL libjxl 0.5

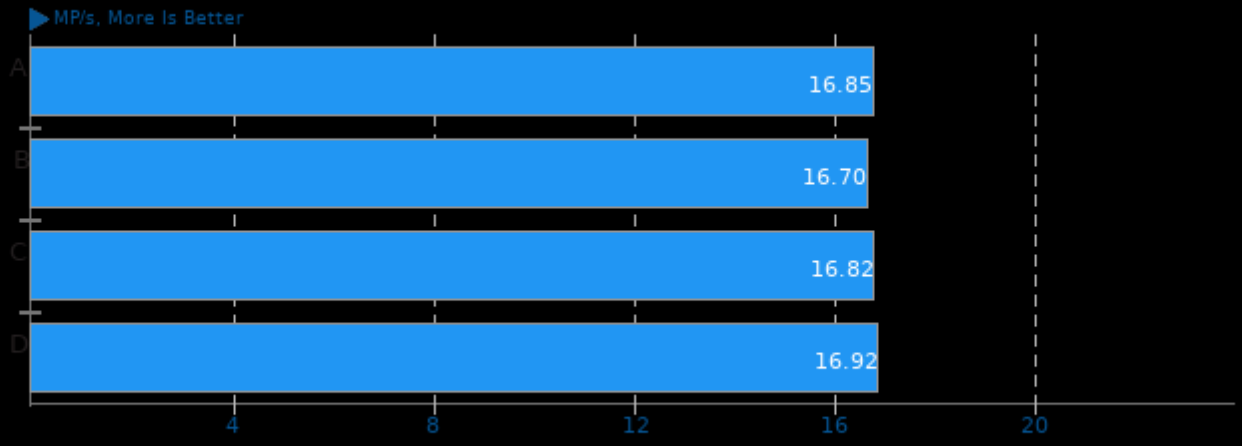
Input: JPEG - Encode Speed: 7



1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

JPEG XL libjxl 0.5

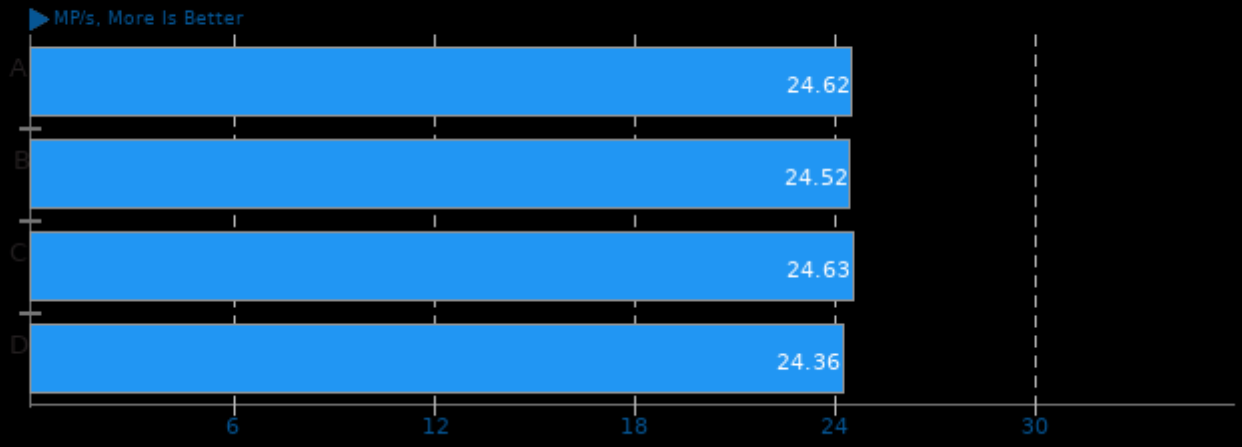
Input: JPEG - Encode Speed: 8

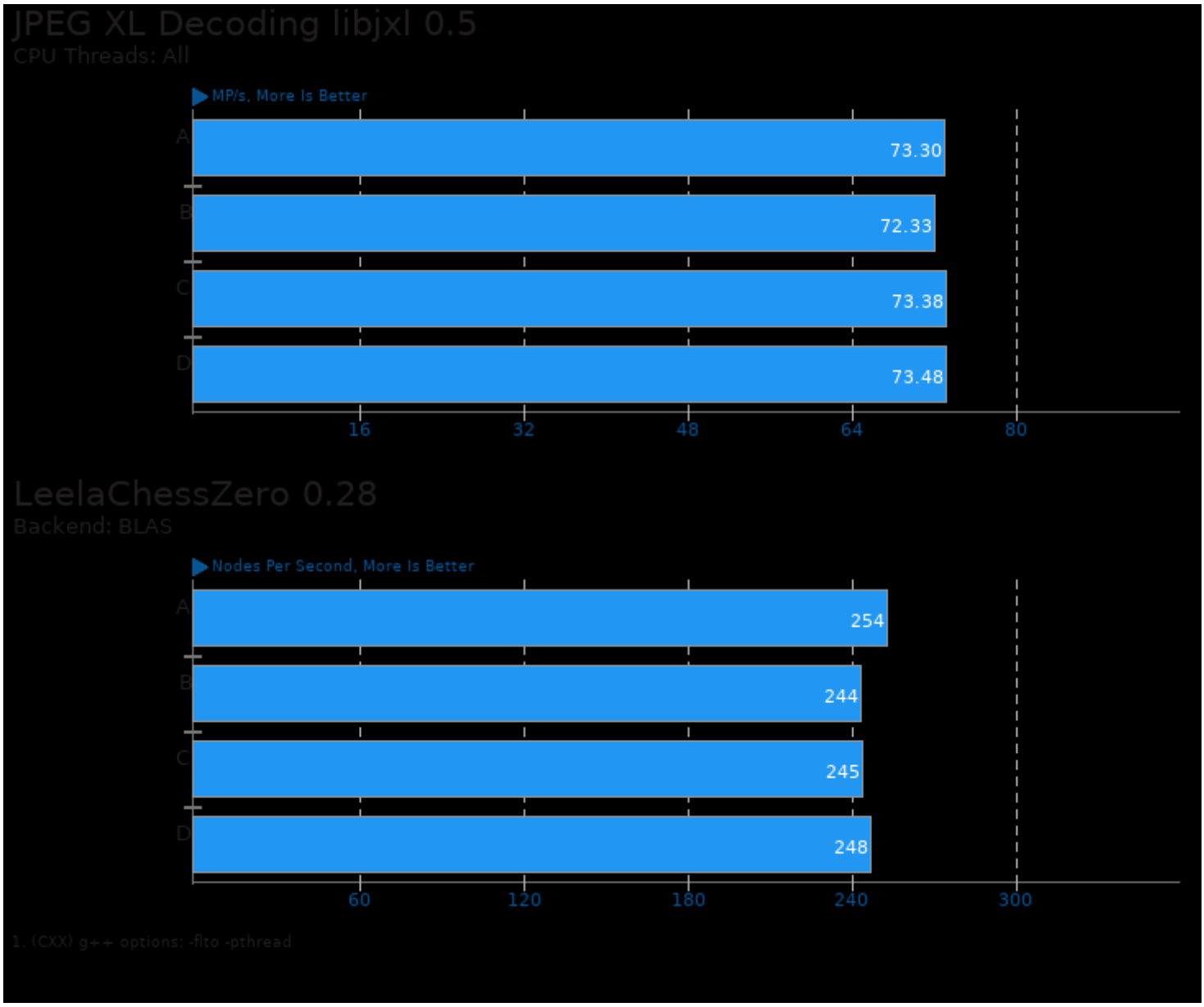


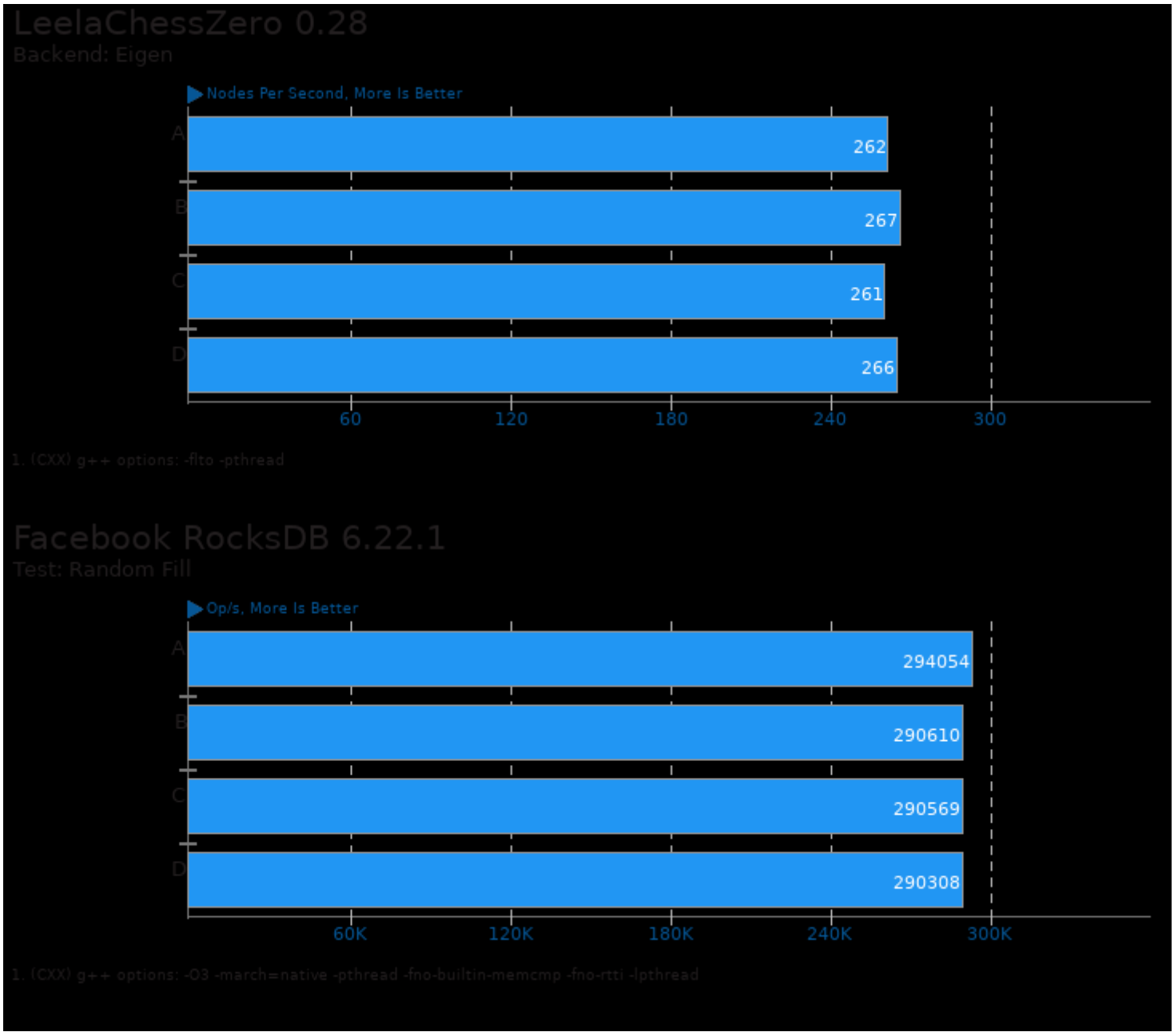
1. (CXX) g++ options: -funwind-tables -O3 -O2 -pthread -fPIE -pie

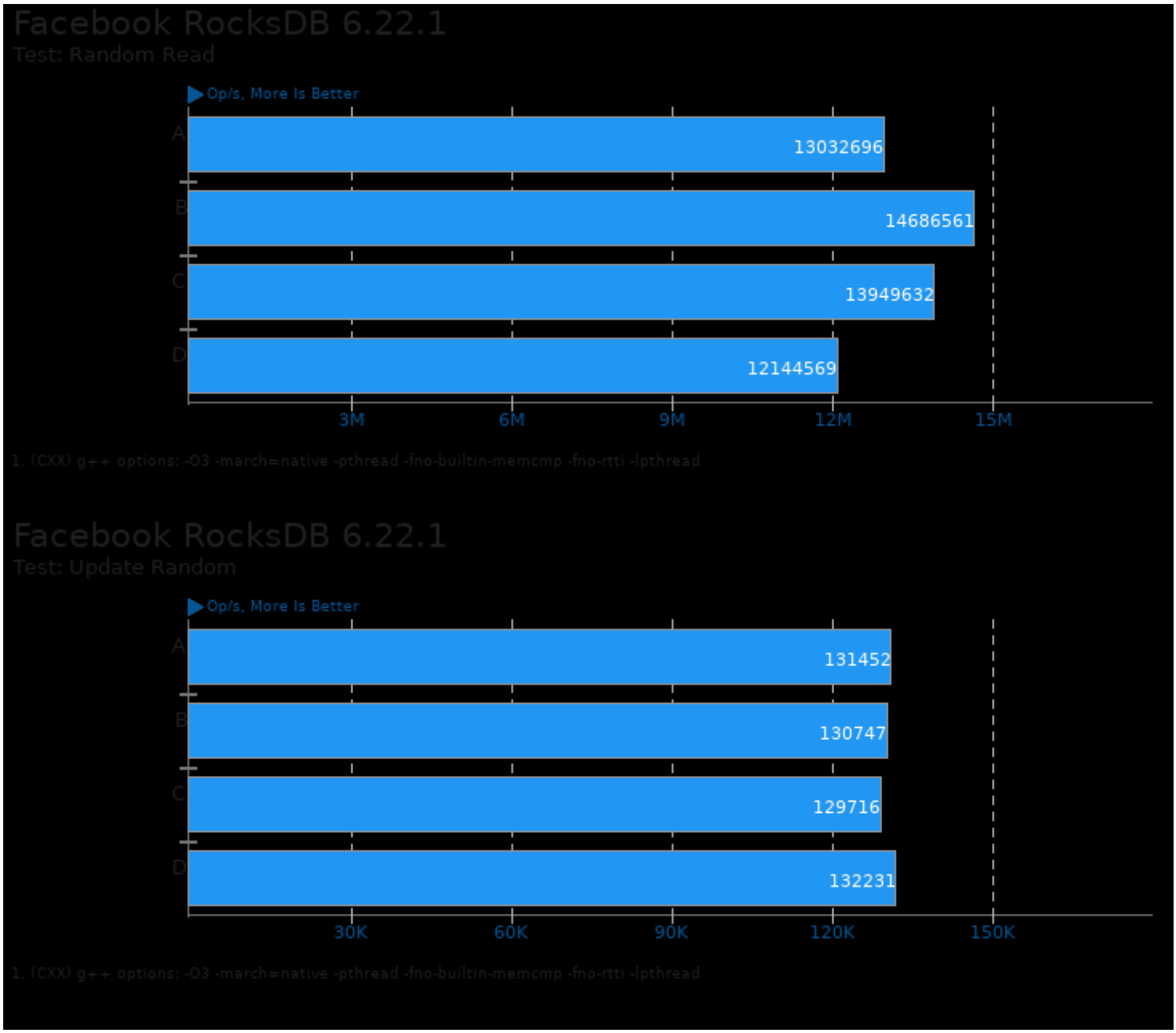
JPEG XL Decoding libjxl 0.5

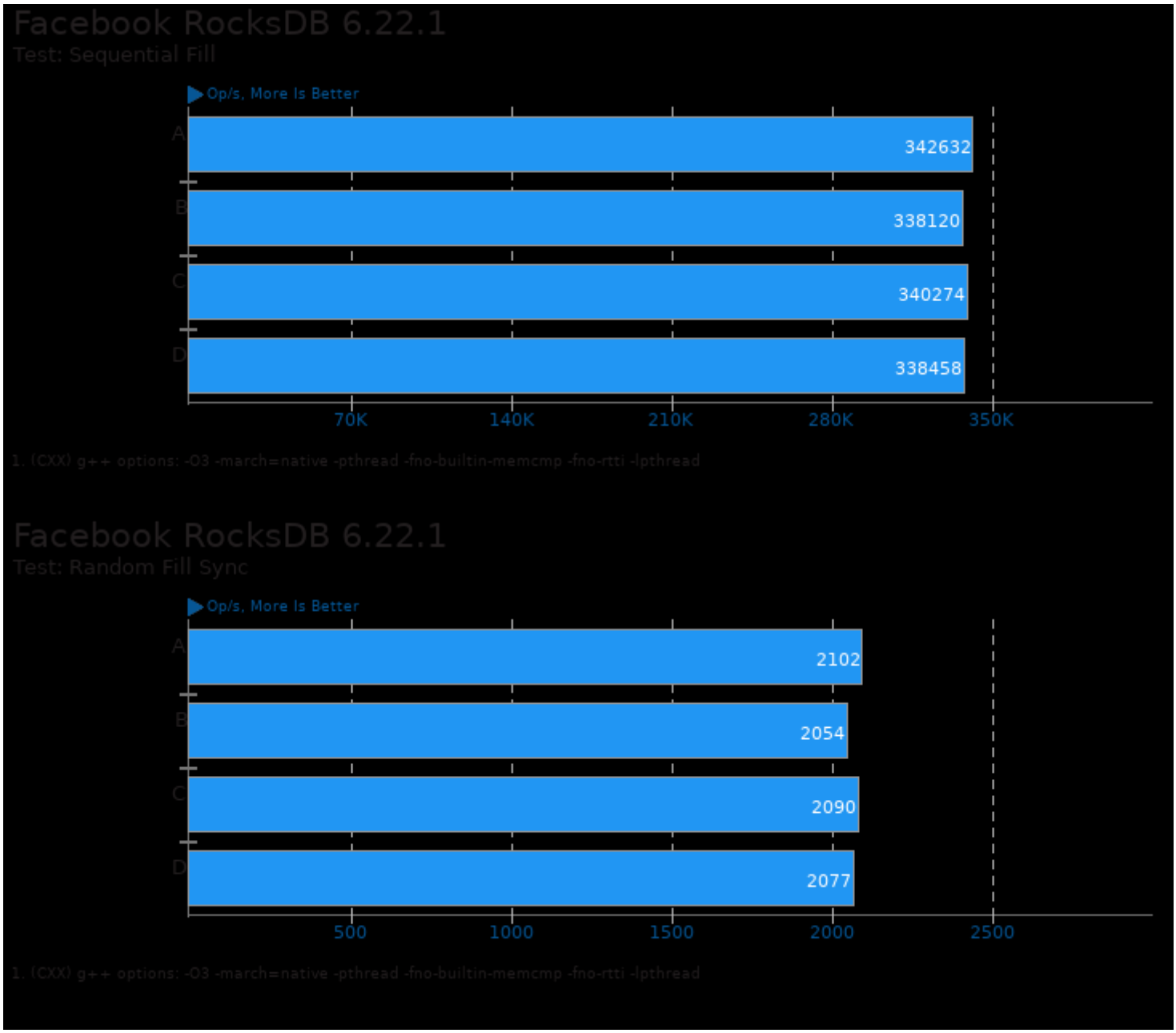
CPU Threads: 1

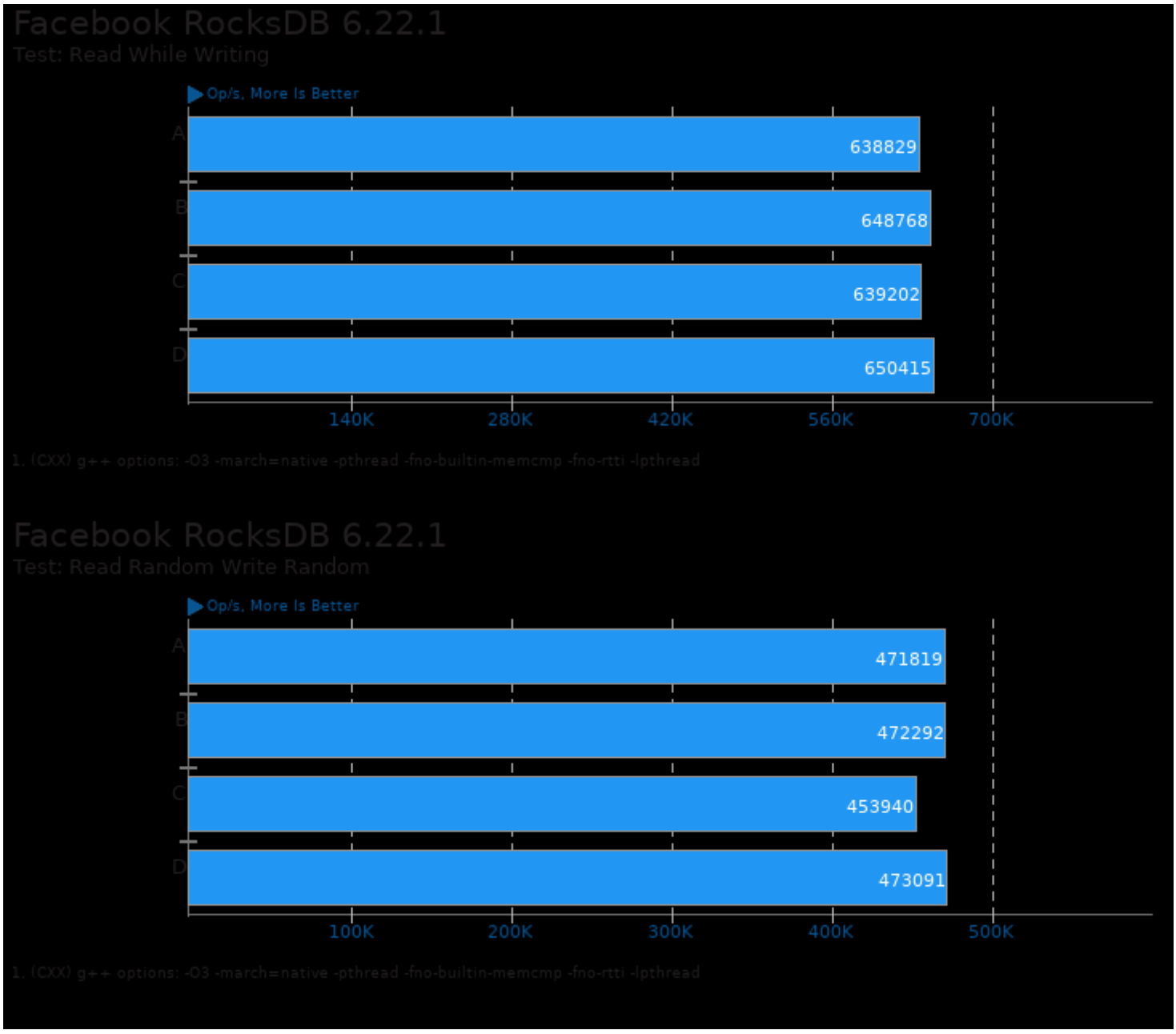


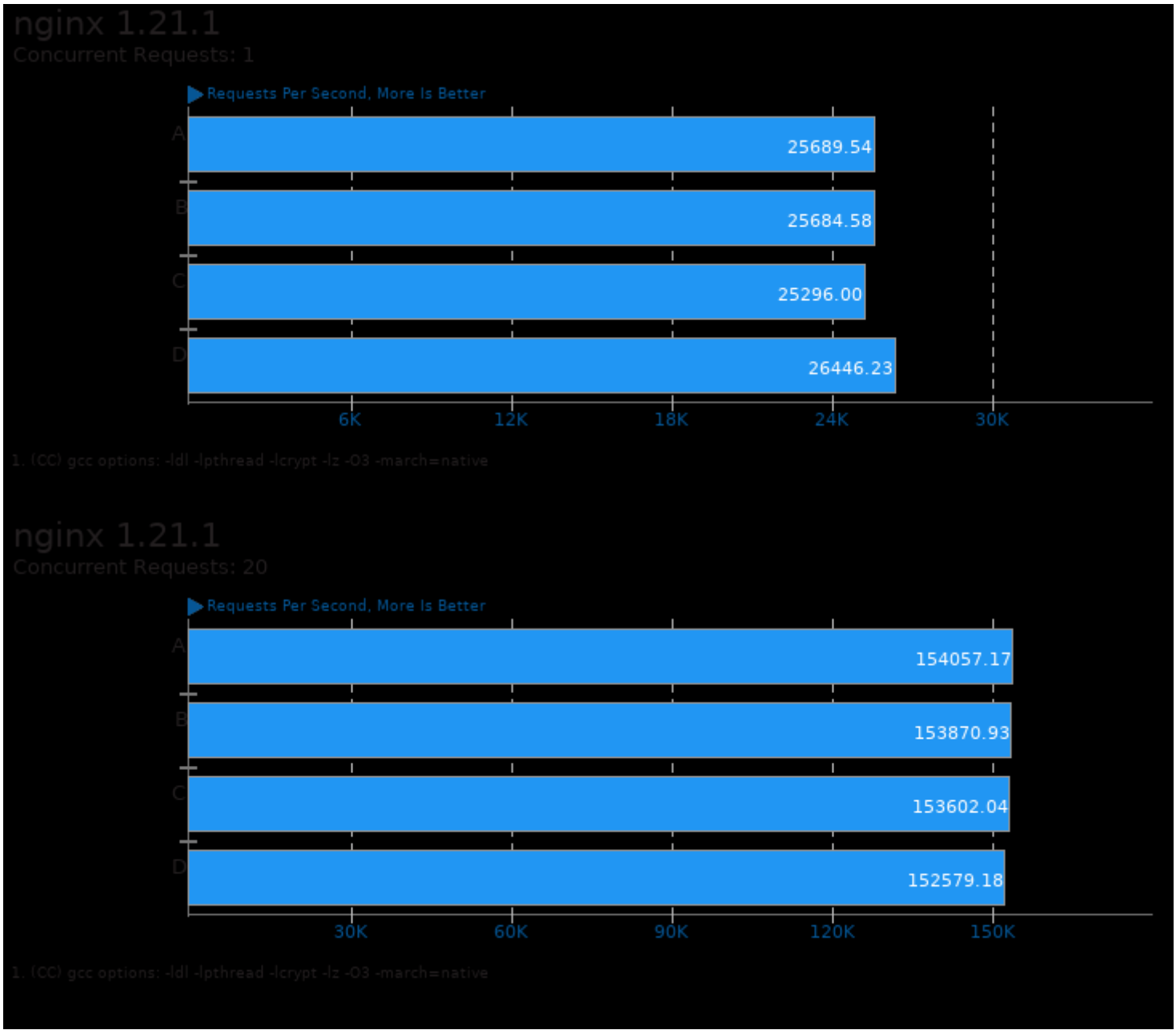

JPEG XL Decoding libjxl 0.5
CPU Threads: All
MP/s, More Is Better
A
B
C
D
73.30
72.33
73.38
73.48
16
32
48
64
80
LeelaChessZero 0.28
Backend: BLAS
Nodes Per Second, More Is Better
A
B
C
D
254
244
245
248
60
120
180
240
300
1. (CXX) g++ options: -flto -pthread

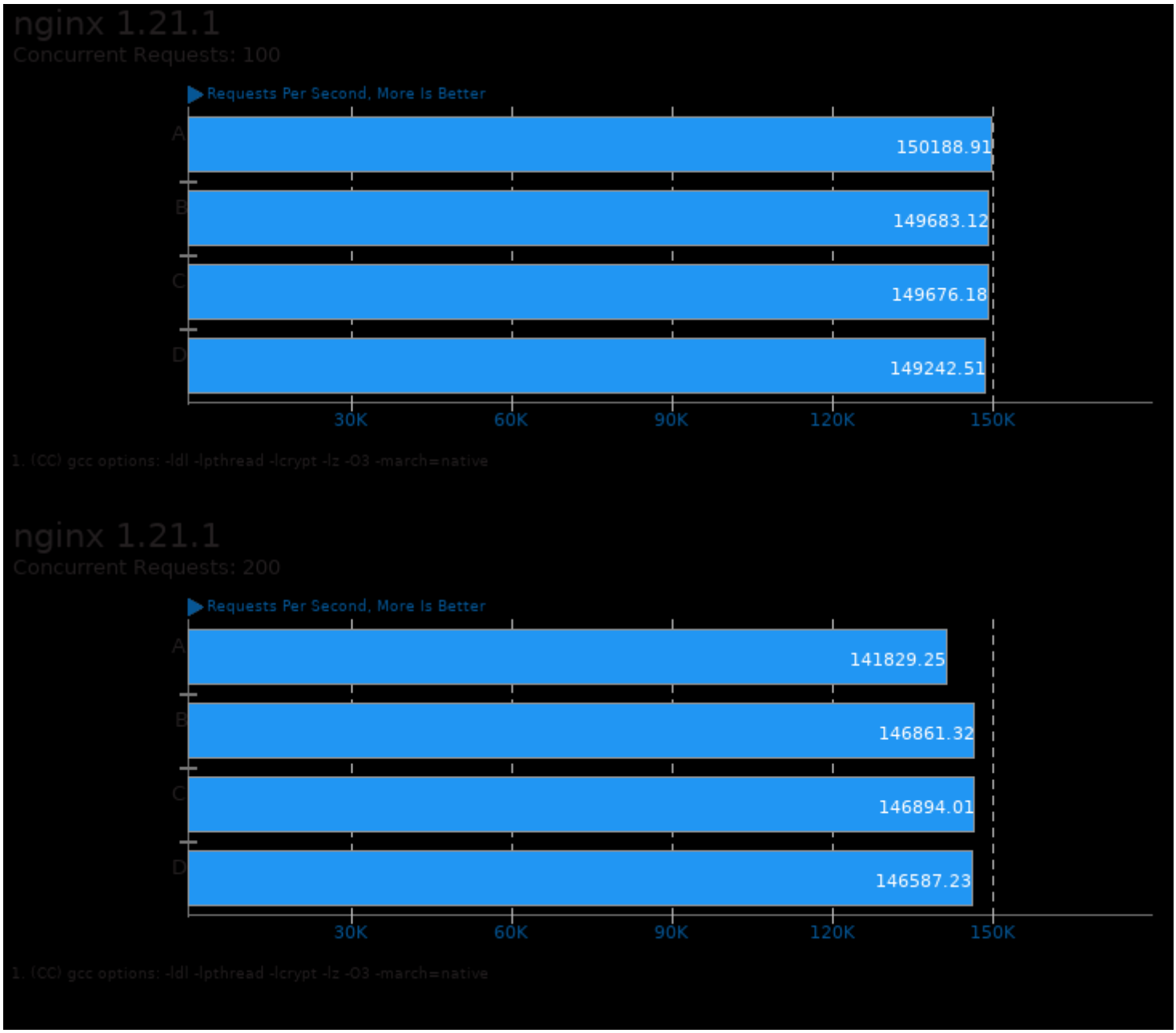

LeelaChessZero 0.28
Backend: Eigen
Nodes Per Second, More Is Better
A
B
C
D
262
267
261
266
60
120
180
240
300
1. (CXX) g++ options: -flto -pthread
Facebook RocksDB 6.22.1
Test: Random Fill
Op/s, More Is Better
A
B
C
D
294054
290610
290569
290308
60K
120K
180K
240K
300K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


Facebook RocksDB 6.22.1
Test: Random Read
Op/s, More Is Better
A
13032696
B
14686561
C
13949632
D
12144569
3M
6M
9M
12M
15M
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 6.22.1
Test: Update Random
Op/s, More Is Better
A
131452
B
130747
C
129716
D
132231
30K
60K
90K
120K
150K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


Facebook RocksDB 6.22.1
Test: Sequential Fill
Op/s, More Is Better
A
342632
B
338120
C
340274
D
338458
70K
140K
210K
280K
350K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 6.22.1
Test: Random Fill Sync
Op/s, More Is Better
A
2102
B
2054
C
2090
D
2077
500
1000
1500
2000
2500
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

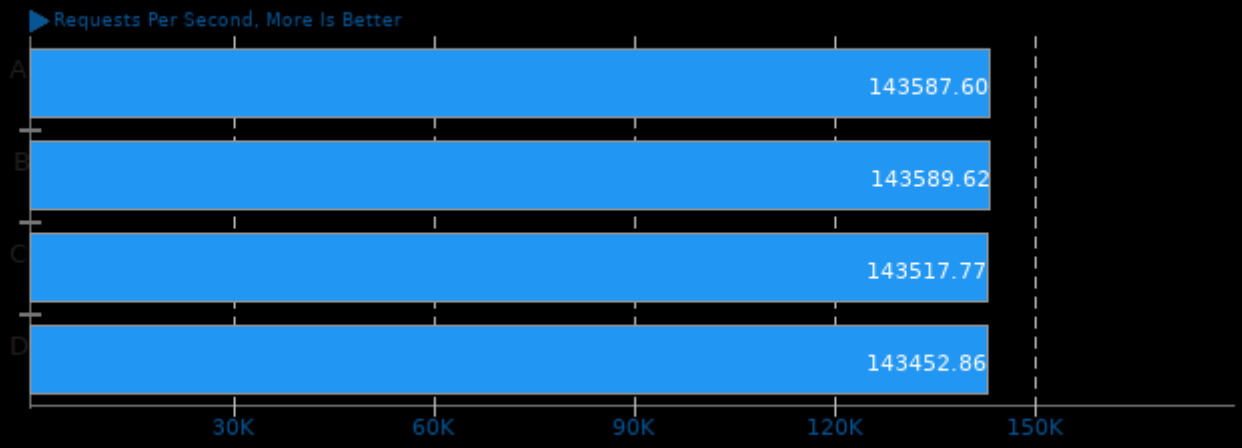

Facebook RocksDB 6.22.1
Test: Read While Writing
Op/s, More Is Better
A
638829
B
648768
C
639202
D
650415
140K
280K
420K
560K
700K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 6.22.1
Test: Read Random Write Random
Op/s, More Is Better
A
471819
B
472292
C
453940
D
473091
100K
200K
300K
400K
500K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


nginx 1.21.1
Concurrent Requests: 1
Requests Per Second, More Is Better
A
25689.54
B
25684.58
C
25296.00
D
26446.23
6K
12K
18K
24K
30K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native
nginx 1.21.1
Concurrent Requests: 20
Requests Per Second, More Is Better
A
154057.17
B
153870.93
C
153602.04
D
152579.18
30K
60K
90K
120K
150K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native


nginx 1.21.1
Concurrent Requests: 100
Requests Per Second, More Is Better
A
B
C
D
150188.91
149683.12
149676.18
149242.51
30K
60K
90K
120K
150K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native
nginx 1.21.1
Concurrent Requests: 200
Requests Per Second, More Is Better
A
B
C
D
141829.25
146861.32
146894.01
146587.23
30K
60K
90K
120K
150K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native

nginx 1.21.1

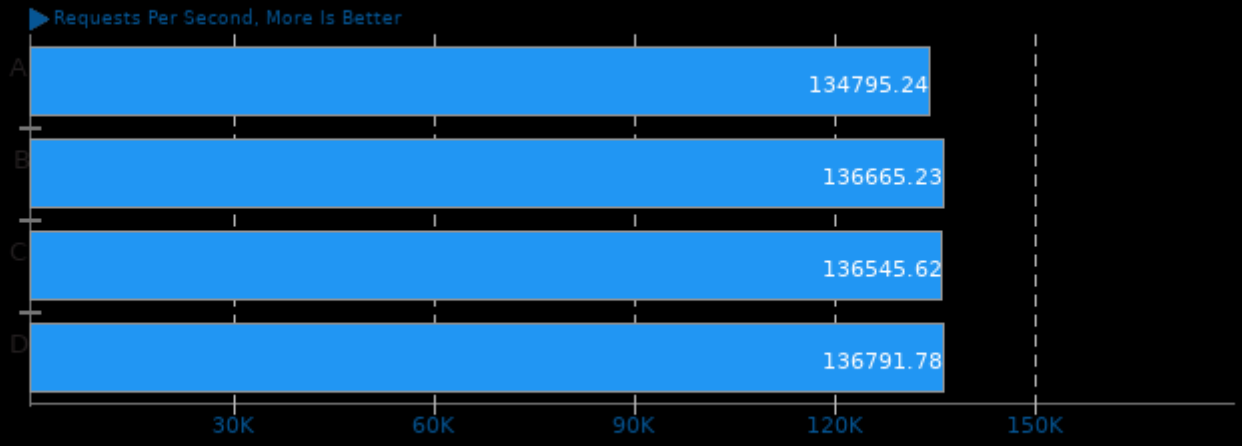
Concurrent Requests: 500



1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native

nginx 1.21.1

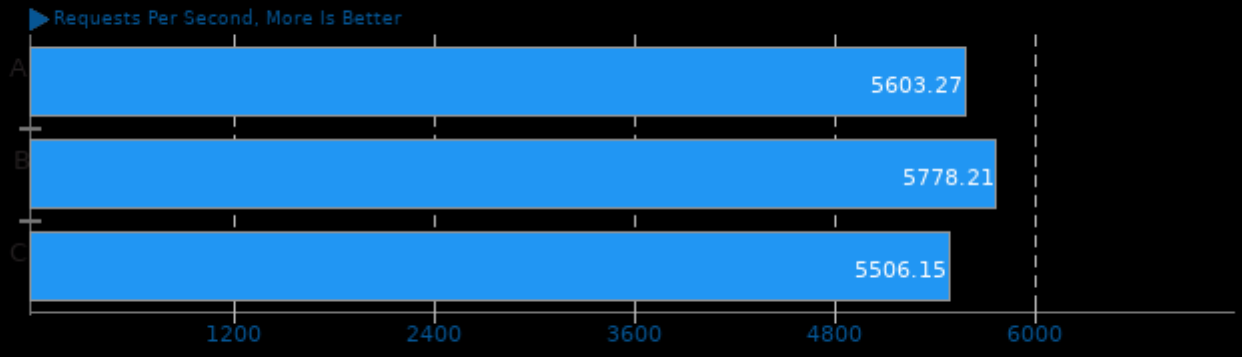
Concurrent Requests: 1000



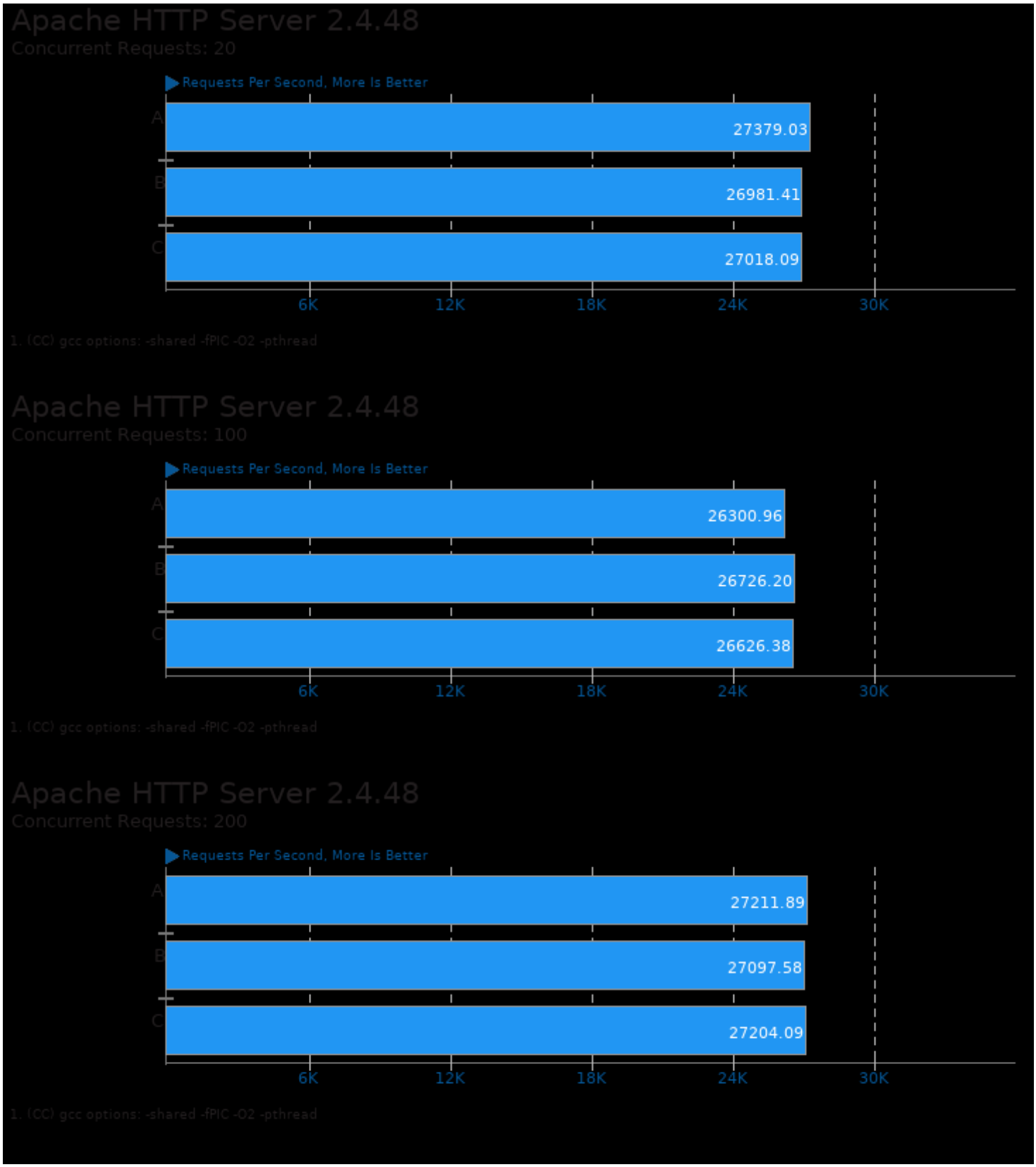
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native

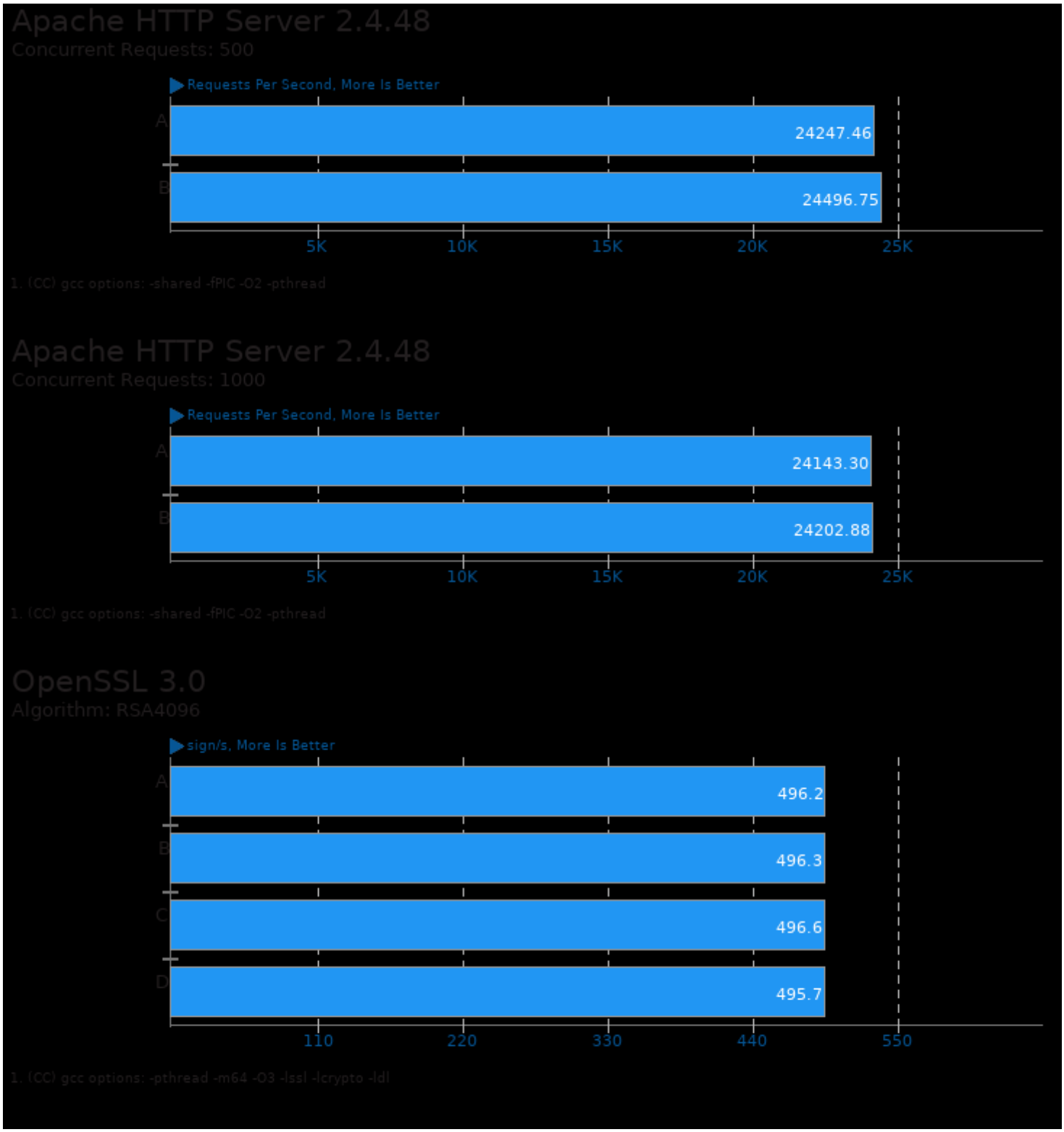
Apache HTTP Server 2.4.48

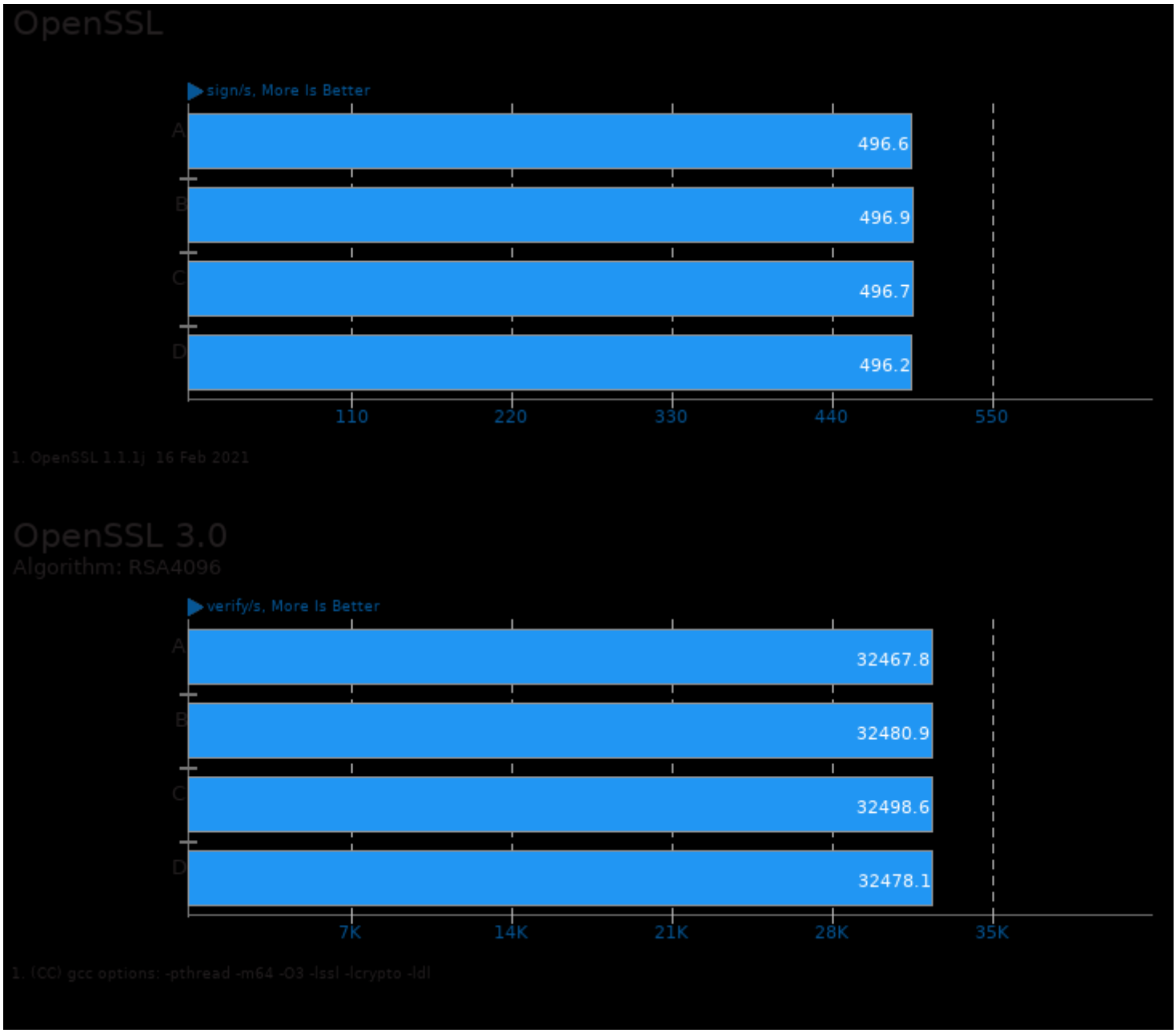
Concurrent Requests: 1



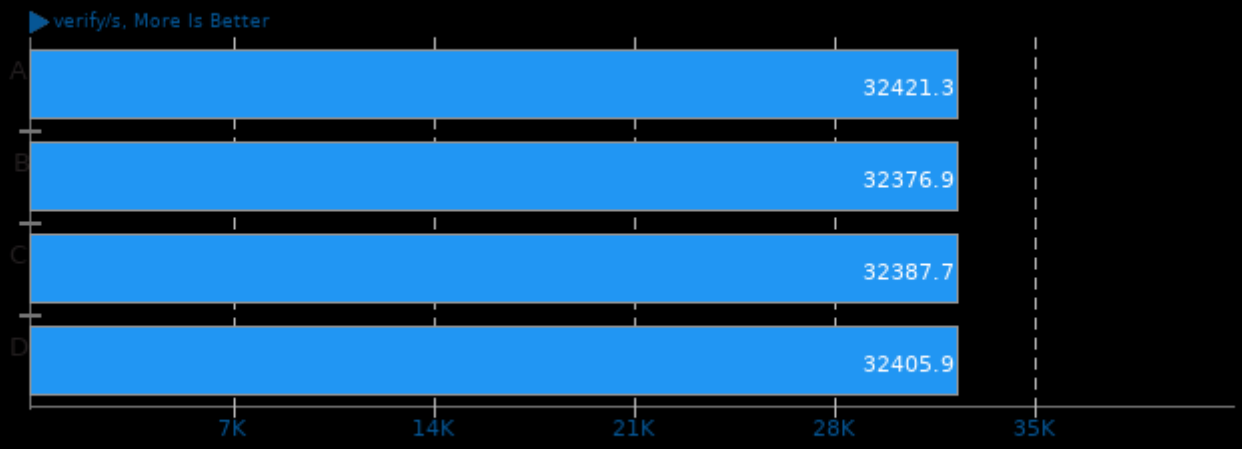
1. (CC) gcc options: -shared -fPIC -O2 -pthread


Apache HTTP Server 2.4.48
Concurrent Requests: 20
Requests Per Second, More Is Better
A
B
C
27379.03
26981.41
27018.09
6K
12K
18K
24K
30K
1. (CC) gcc options: -shared -fPIC -O2 -pthread
Apache HTTP Server 2.4.48
Concurrent Requests: 100
Requests Per Second, More Is Better
A
B
C
26300.96
26726.20
26626.38
6K
12K
18K
24K
30K
1. (CC) gcc options: -shared -fPIC -O2 -pthread
Apache HTTP Server 2.4.48
Concurrent Requests: 200
Requests Per Second, More Is Better
A
B
C
27211.89
27097.58
27204.09
6K
12K
18K
24K
30K
1. (CC) gcc options: -shared -fPIC -O2 -pthread


Apache HTTP Server 2.4.48
Concurrent Requests: 500
Requests Per Second, More Is Better
A
24247.46
B
24496.75
5K
10K
15K
20K
25K
1. (CC) gcc options: -shared -fPIC -O2 -pthread
Apache HTTP Server 2.4.48
Concurrent Requests: 1000
Requests Per Second, More Is Better
A
24143.30
B
24202.88
5K
10K
15K
20K
25K
1. (CC) gcc options: -shared -fPIC -O2 -pthread
OpenSSL 3.0
Algorithm: RSA4096
sign/s, More Is Better
A
496.2
B
496.3
C
496.6
D
495.7
110
220
330
440
550
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl


OpenSSL
sign/s, More Is Better
A
B
C
D
496.6
496.9
496.7
496.2
110
220
330
440
550
1. OpenSSL 1.1.1j 16 Feb 2021
OpenSSL 3.0
Algorithm: RSA4096
verify/s, More Is Better
A
B
C
D
32467.8
32480.9
32498.6
32478.1
7K
14K
21K
28K
35K
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl

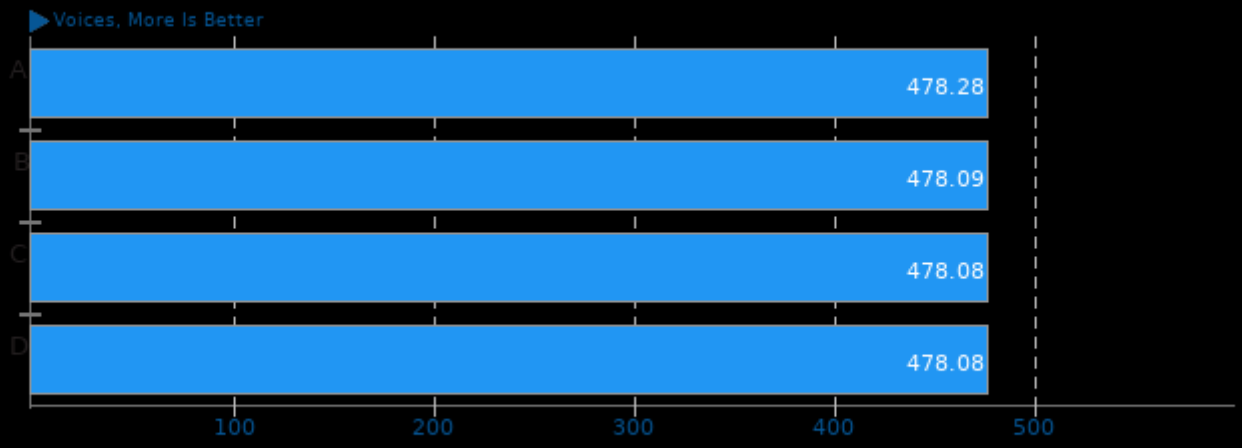
OpenSSL



1. OpenSSL 1.1.1j 16 Feb 2021

Google SynthMark 20201109

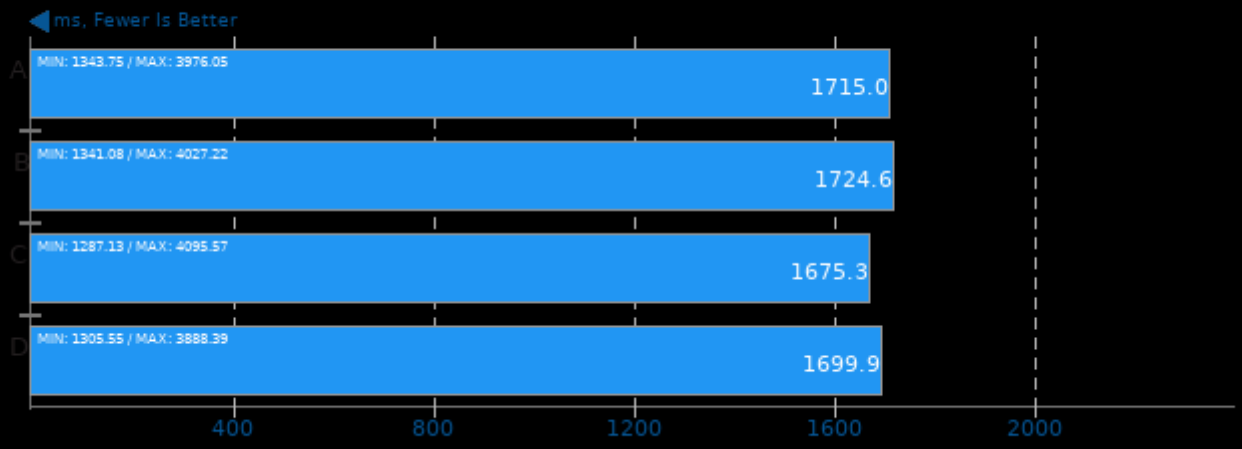
Test: VoiceMark_100

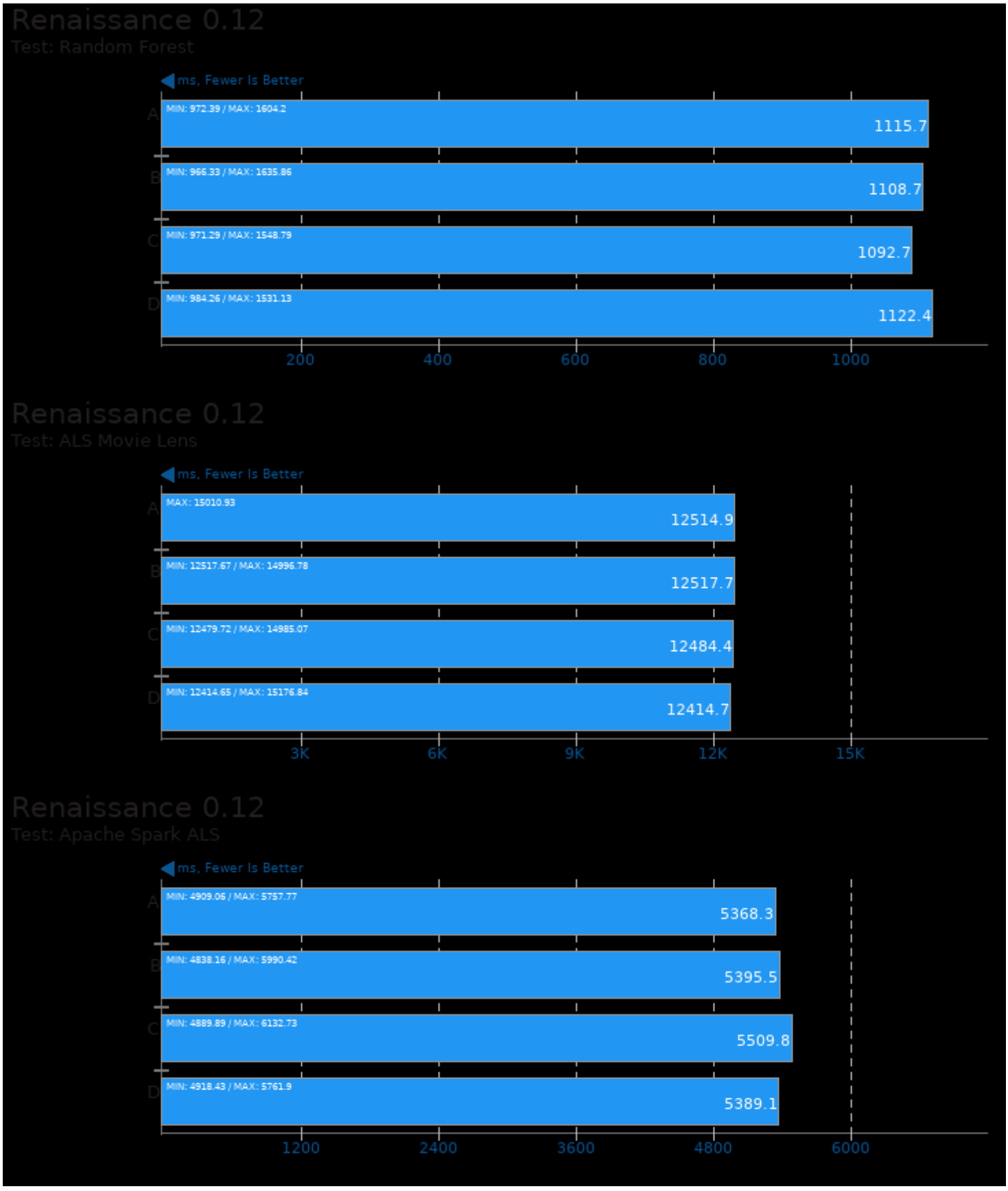


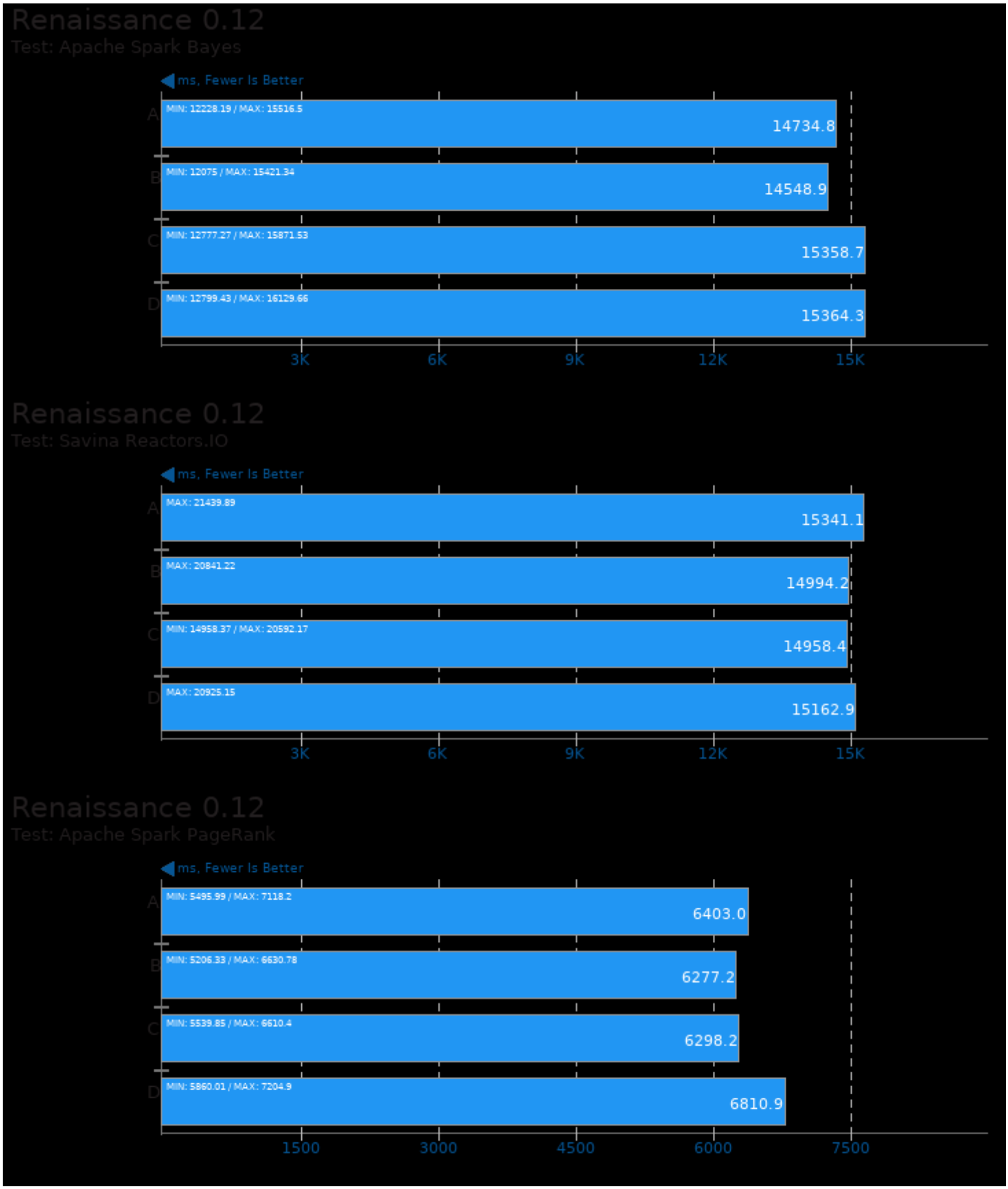
1. (CXX) g++ options: -lm -lpthread -std=c++11 -Ofast

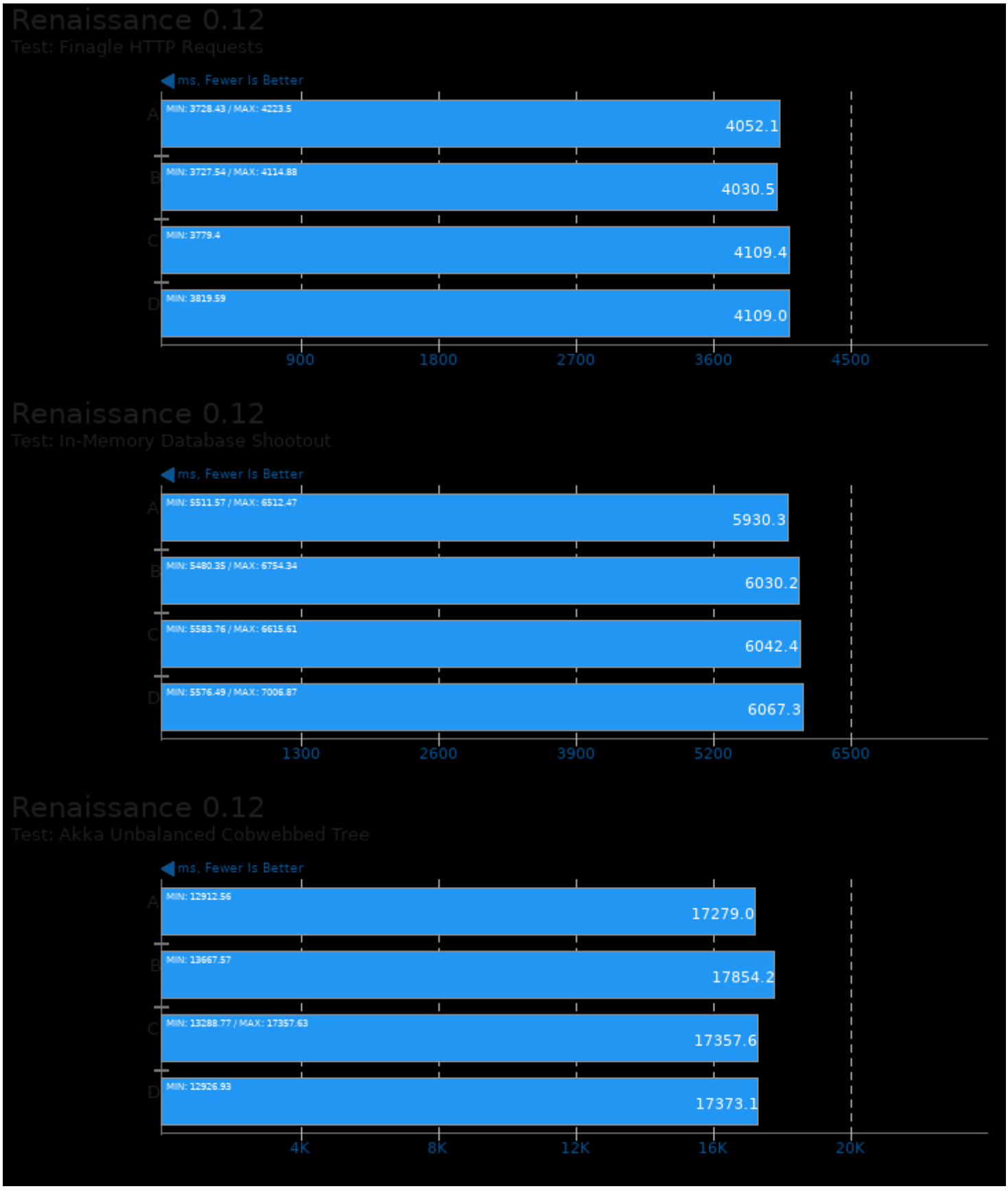
Renaissance 0.12

Test: Scala Dotty



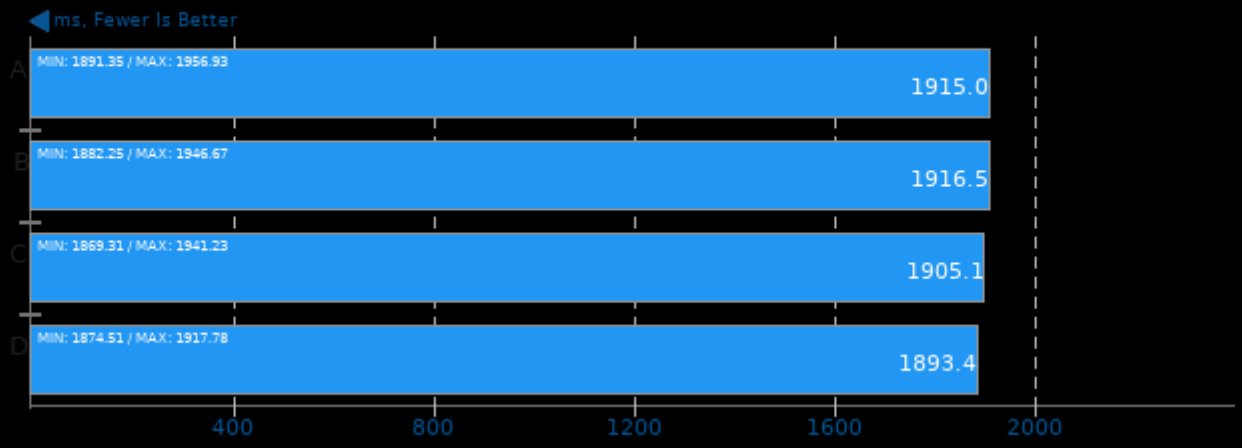

Renaissance 0.12
Test: Random Forest
ms, Fewer Is Better
A
MIN: 972.39 / MAX: 1604.2
1115.7
B
MIN: 966.33 / MAX: 1635.86
1108.7
C
MIN: 971.29 / MAX: 1548.79
1092.7
D
MIN: 984.26 / MAX: 1531.13
1122.4
200
400
600
800
1000
Renaissance 0.12
Test: ALS Movie Lens
ms, Fewer Is Better
A
MAX: 15010.93
12514.9
B
MIN: 12517.67 / MAX: 14996.78
12517.7
C
MIN: 12479.72 / MAX: 14985.07
12484.4
D
MIN: 12414.65 / MAX: 15176.84
12414.7
3K
6K
9K
12K
15K
Renaissance 0.12
Test: Apache Spark ALS
ms, Fewer Is Better
A
MIN: 4909.06 / MAX: 5757.77
5368.3
B
MIN: 4838.16 / MAX: 5990.42
5395.5
C
MIN: 4889.89 / MAX: 6132.73
5509.8
D
MIN: 4918.43 / MAX: 5761.9
5389.1
1200
2400
3600
4800
6000


Renaissance 0.12
Test: Apache Spark Bayes
ms, Fewer Is Better
A
MIN: 12228.19 / MAX: 15516.5
14734.8
B
MIN: 12075 / MAX: 15421.34
14548.9
C
MIN: 12777.27 / MAX: 15871.53
15358.7
D
MIN: 12799.43 / MAX: 16129.66
15364.3
3K
6K
9K
12K
15K
Renaissance 0.12
Test: Savina Reactors.IO
ms, Fewer Is Better
A
MAX: 21439.89
15341.1
B
MAX: 20841.22
14994.2
C
MIN: 14958.37 / MAX: 20592.17
14958.4
D
MAX: 20925.15
15162.9
3K
6K
9K
12K
15K
Renaissance 0.12
Test: Apache Spark PageRank
ms, Fewer Is Better
A
MIN: 5495.99 / MAX: 7118.2
6403.0
B
MIN: 5206.33 / MAX: 6630.78
6277.2
C
MIN: 5539.85 / MAX: 6610.4
6298.2
D
MIN: 5860.01 / MAX: 7204.9
6810.9
1500
3000
4500
6000
7500


Renaissance 0.12
Test: Finagle HTTP Requests
ms, Fewer Is Better
A
MIN: 3728.43 / MAX: 4223.5
4052.1
B
MIN: 3727.54 / MAX: 4114.88
4030.5
C
MIN: 3779.4
4109.4
D
MIN: 3819.59
4109.0
900
1800
2700
3600
4500
Renaissance 0.12
Test: In-Memory Database Shootout
ms, Fewer Is Better
A
MIN: 5511.57 / MAX: 6512.47
5930.3
B
MIN: 5480.35 / MAX: 6754.34
6030.2
C
MIN: 5583.76 / MAX: 6615.61
6042.4
D
MIN: 5576.49 / MAX: 7006.87
6067.3
1300
2600
3900
5200
6500
Renaissance 0.12
Test: Akka Unbalanced Cobwebbed Tree
ms, Fewer Is Better
A
MIN: 12912.56
17279.0
B
MIN: 13667.57
17854.2
C
MIN: 13288.77 / MAX: 17357.63
17357.6
D
MIN: 12926.93
17373.1
4K
8K
12K
16K
20K

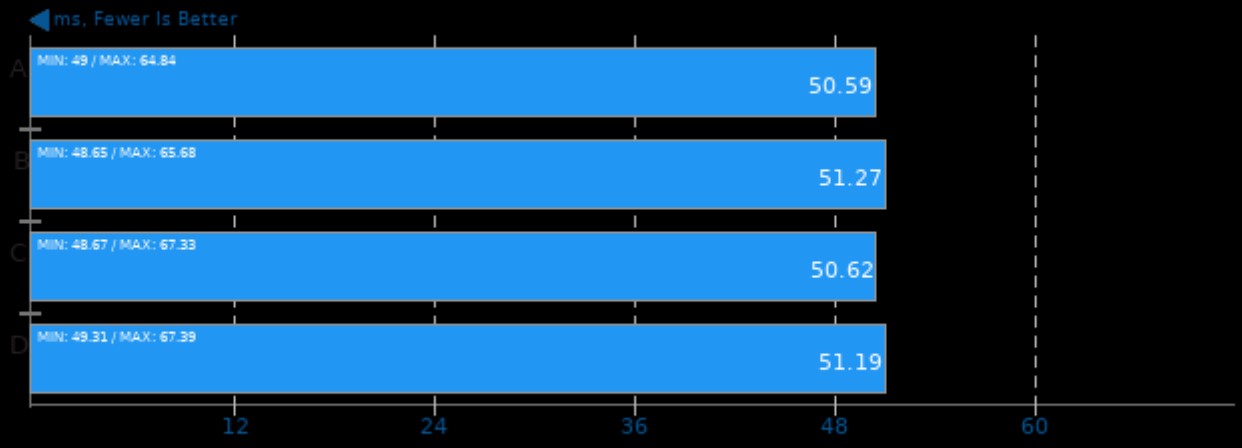
Renaissance 0.12

Test: Genetic Algorithm Using Jenetics + Futures



NCNN 20210720

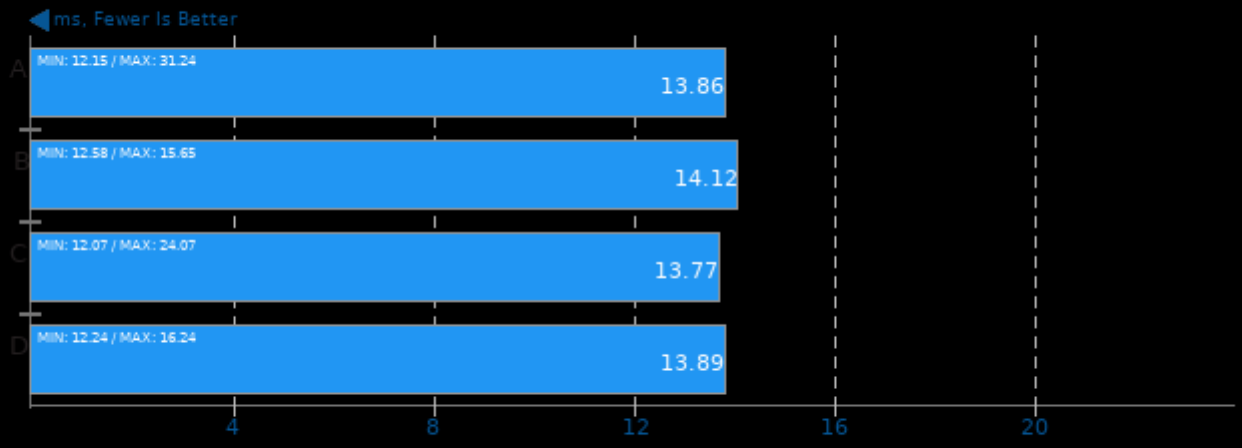
Target: CPU - Model: mobilenet



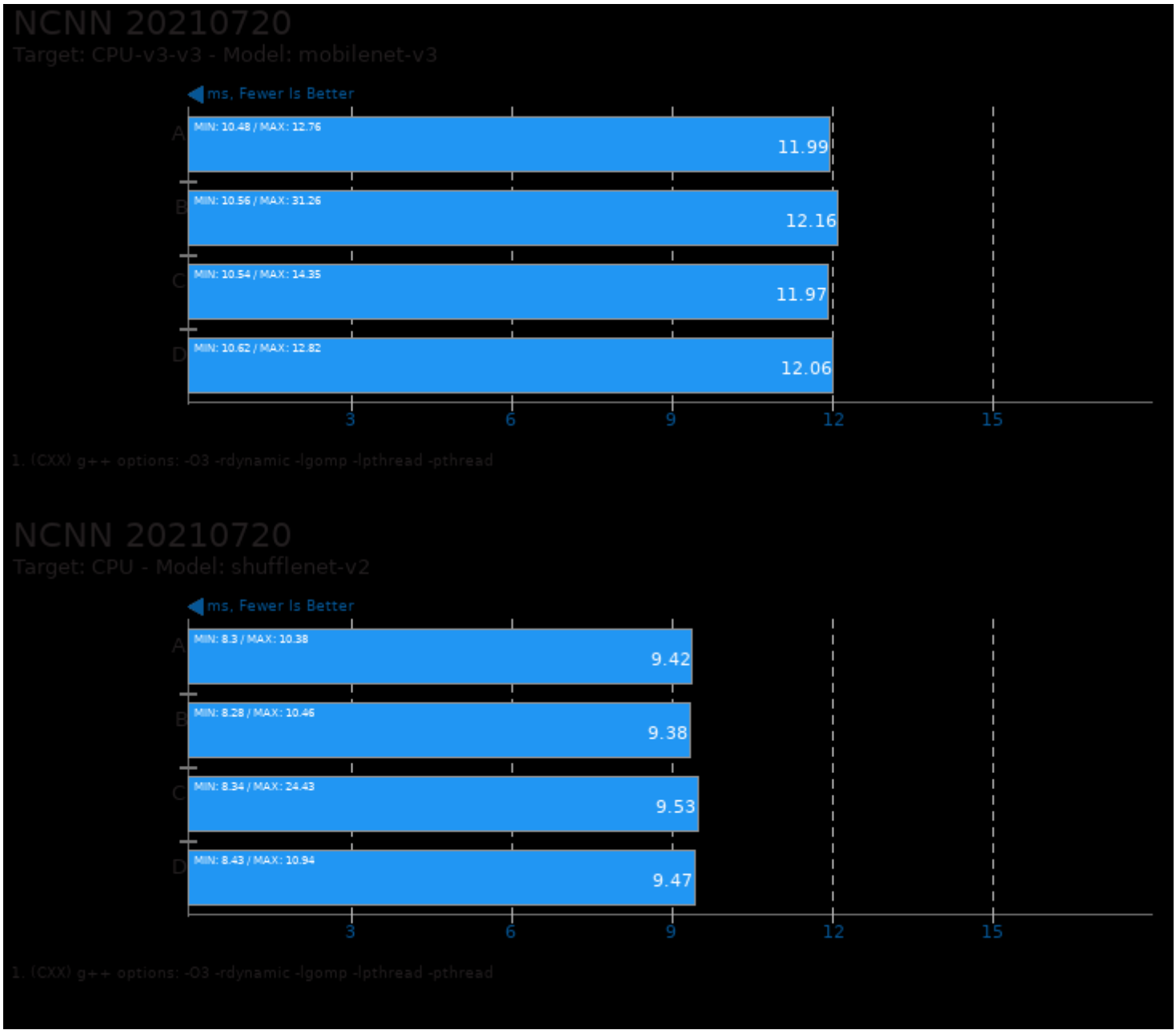
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

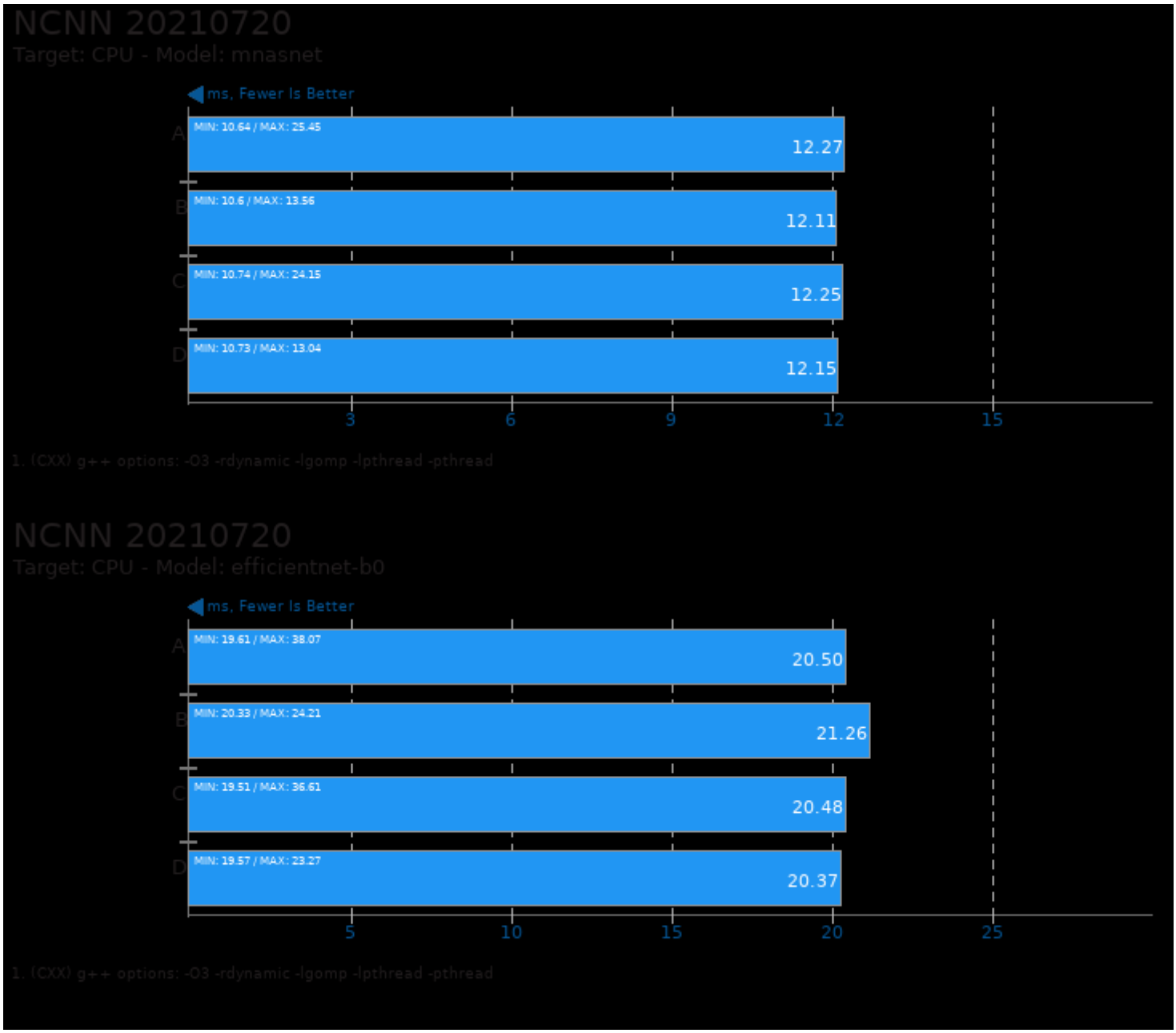
NCNN 20210720

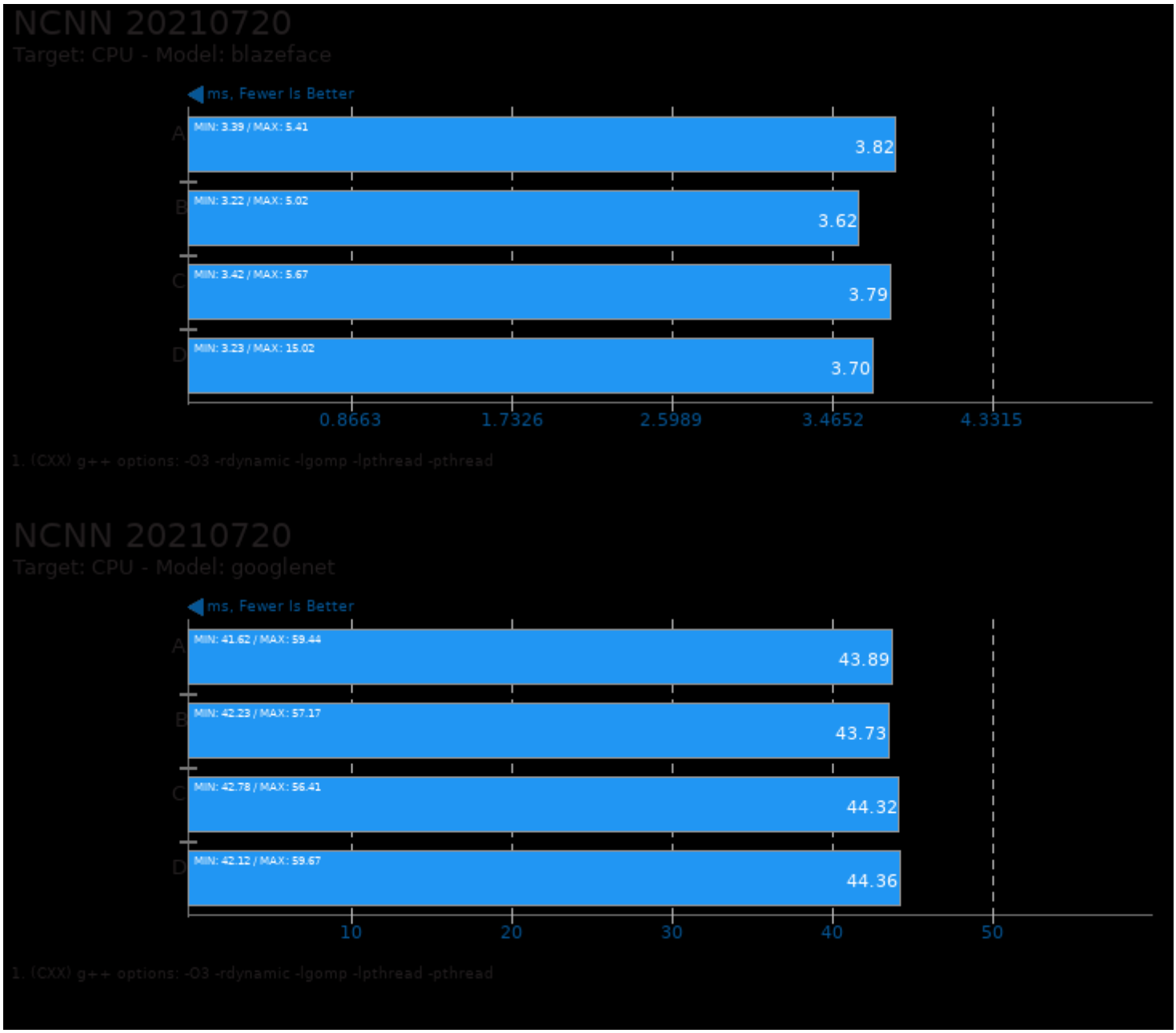
Target: CPU-v2-v2 - Model: mobilenet-v2

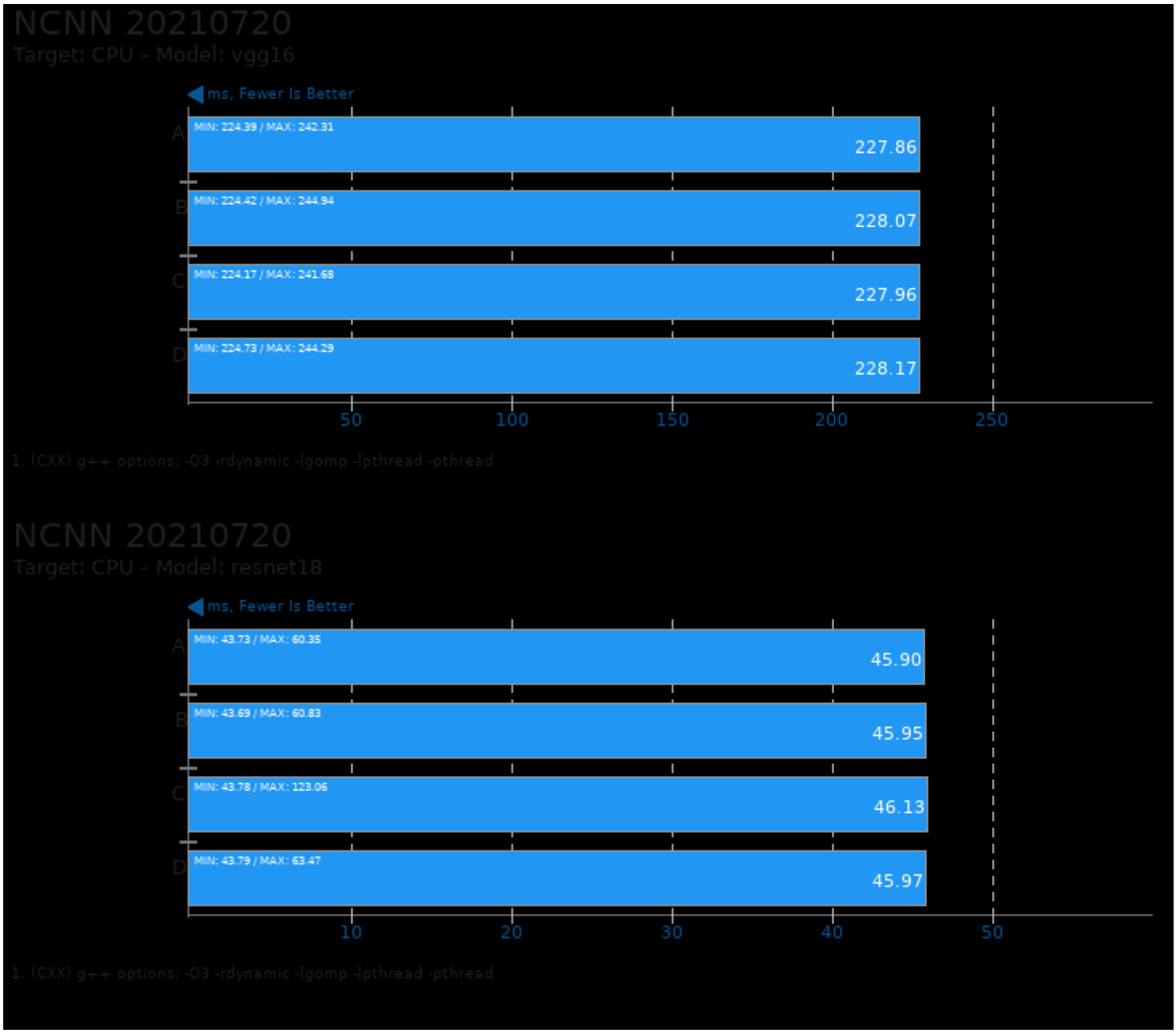


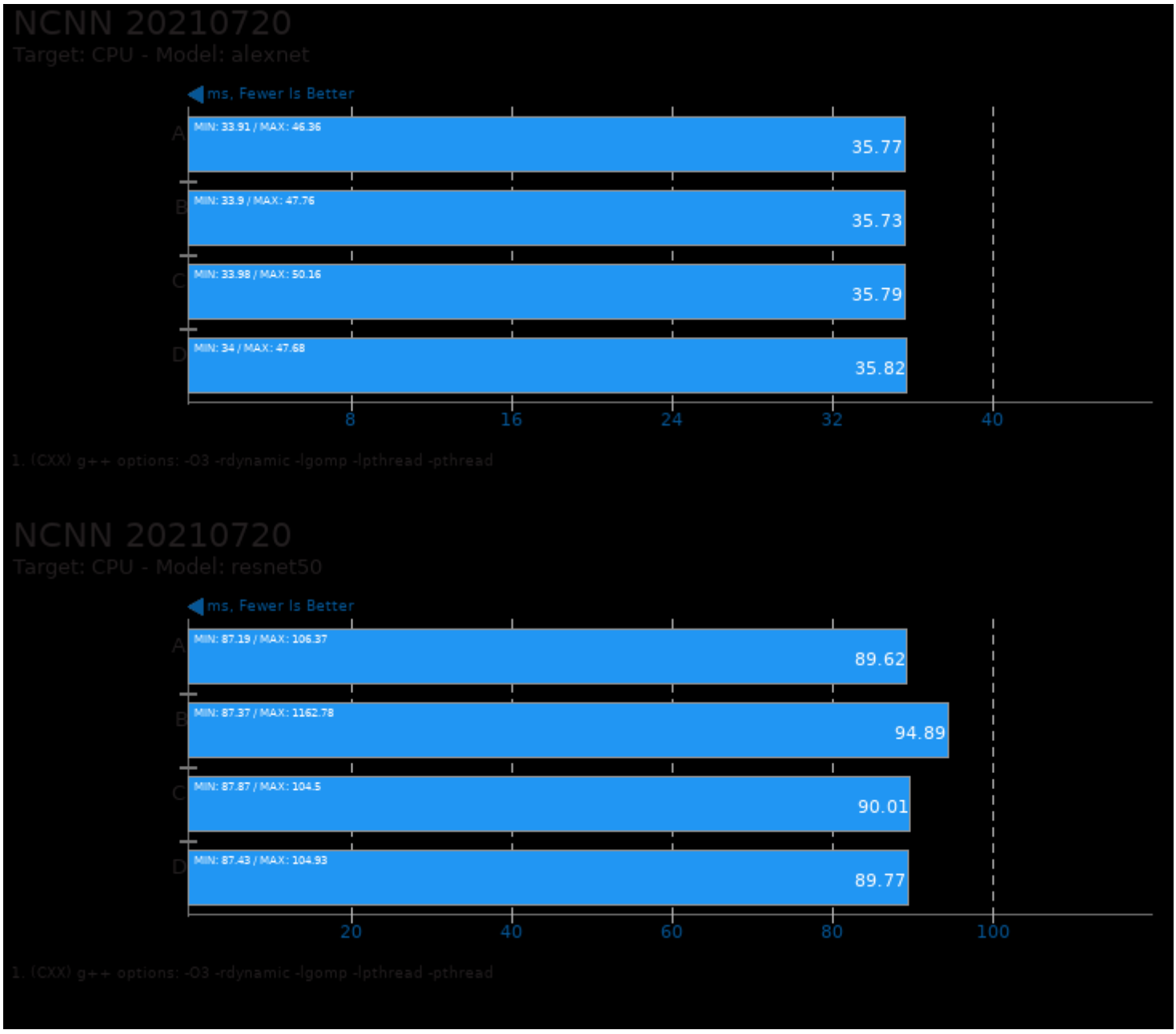
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

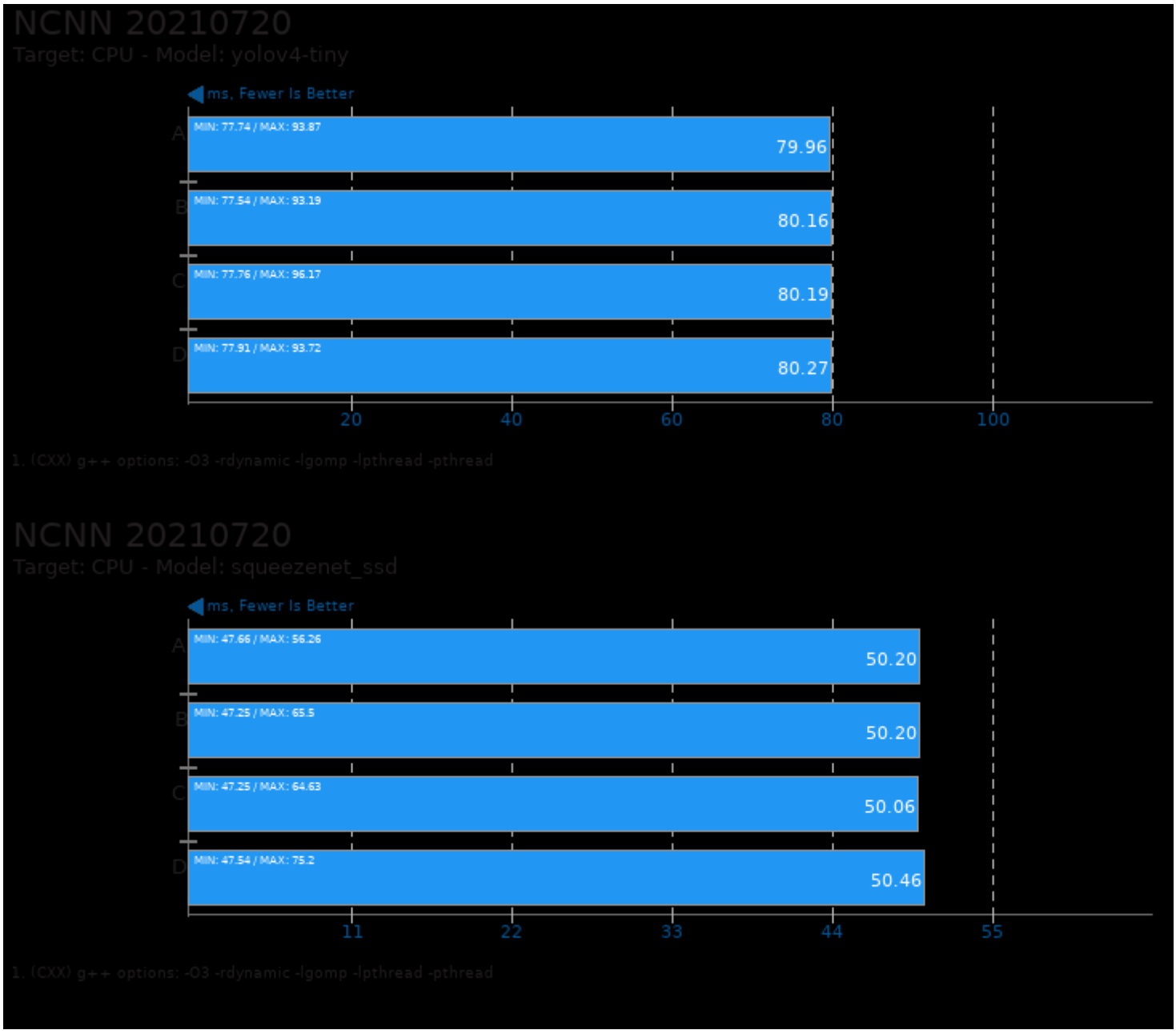

NCNN 20210720
Target: CPU-v3-v3 - Model: mobilenet-v3
ms, Fewer Is Better
A
MIN: 10.48 / MAX: 12.76
11.99
B
MIN: 10.56 / MAX: 31.26
12.16
C
MIN: 10.54 / MAX: 14.35
11.97
D
MIN: 10.62 / MAX: 12.82
12.06
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: shufflenet-v2
ms, Fewer Is Better
A
MIN: 8.3 / MAX: 10.38
9.42
B
MIN: 8.28 / MAX: 10.46
9.38
C
MIN: 8.34 / MAX: 24.43
9.53
D
MIN: 8.43 / MAX: 10.94
9.47
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: CPU - Model: mnasnet
ms, Fewer Is Better
A
MIN: 10.64 / MAX: 25.45
12.27
B
MIN: 10.6 / MAX: 13.56
12.11
C
MIN: 10.74 / MAX: 24.15
12.25
D
MIN: 10.73 / MAX: 13.04
12.15
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: efficientnet-b0
ms, Fewer Is Better
A
MIN: 19.61 / MAX: 38.07
20.50
B
MIN: 20.33 / MAX: 24.21
21.26
C
MIN: 19.51 / MAX: 36.61
20.48
D
MIN: 19.57 / MAX: 23.27
20.37
5
10
15
20
25
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: CPU - Model: blazeface
ms, Fewer Is Better
A
MIN: 3.39 / MAX: 5.41
3.82
B
MIN: 3.22 / MAX: 5.02
3.62
C
MIN: 3.42 / MAX: 5.67
3.79
D
MIN: 3.23 / MAX: 15.02
3.70
0.8663
1.7326
2.5989
3.4652
4.3315
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: googlenet
ms, Fewer Is Better
A
MIN: 41.62 / MAX: 59.44
43.89
B
MIN: 42.23 / MAX: 57.17
43.73
C
MIN: 42.78 / MAX: 56.41
44.32
D
MIN: 42.12 / MAX: 59.67
44.36
10
20
30
40
50
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

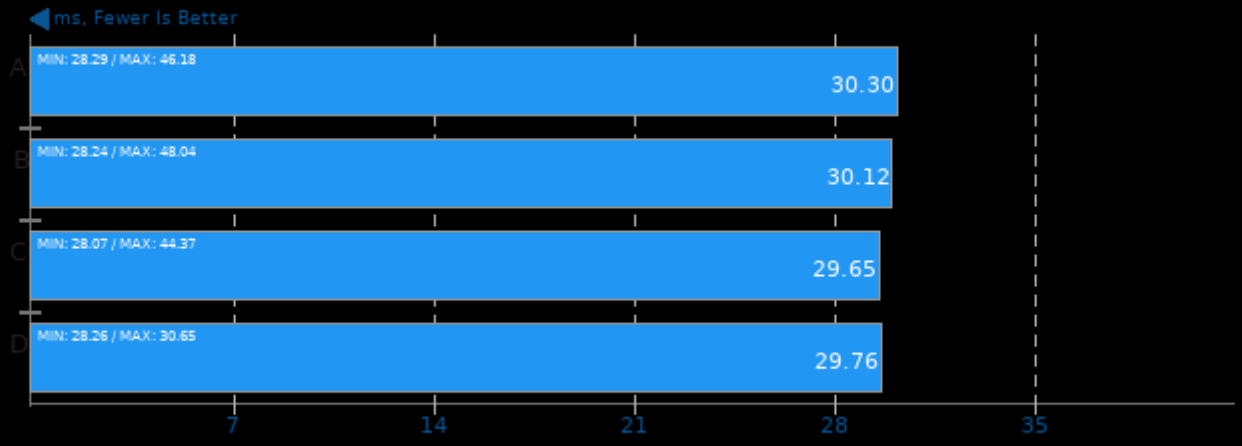

NCNN 20210720
Target: CPU - Model: vgg16
ms, Fewer Is Better
A
MIN: 224.39 / MAX: 242.31
227.86
B
MIN: 224.42 / MAX: 244.94
228.07
C
MIN: 224.17 / MAX: 241.68
227.96
D
MIN: 224.73 / MAX: 244.29
228.17
50
100
150
200
250
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: resnet18
ms, Fewer Is Better
A
MIN: 43.73 / MAX: 60.35
45.90
B
MIN: 43.69 / MAX: 60.83
45.95
C
MIN: 43.78 / MAX: 123.06
46.13
D
MIN: 43.79 / MAX: 63.47
45.97
10
20
30
40
50
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: CPU - Model: alexnet
ms, Fewer Is Better
A
MIN: 33.91 / MAX: 46.36
35.77
B
MIN: 33.9 / MAX: 47.76
35.73
C
MIN: 33.98 / MAX: 50.16
35.79
D
MIN: 34 / MAX: 47.68
35.82
8
16
24
32
40
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: resnet50
ms, Fewer Is Better
A
MIN: 87.19 / MAX: 106.37
89.62
B
MIN: 87.37 / MAX: 1162.78
94.89
C
MIN: 87.87 / MAX: 104.5
90.01
D
MIN: 87.43 / MAX: 104.93
89.77
20
40
60
80
100
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: CPU - Model: yolov4-tiny
ms, Fewer Is Better
A
MIN: 77.74 / MAX: 93.87
79.96
B
MIN: 77.54 / MAX: 93.19
80.16
C
MIN: 77.76 / MAX: 96.17
80.19
D
MIN: 77.91 / MAX: 93.72
80.27
20
40
60
80
100
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: squeezenet_ssd
ms, Fewer Is Better
A
MIN: 47.66 / MAX: 56.26
50.20
B
MIN: 47.25 / MAX: 65.5
50.20
C
MIN: 47.25 / MAX: 64.63
50.06
D
MIN: 47.54 / MAX: 75.2
50.46
11
22
33
44
55
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

NCNN 20210720

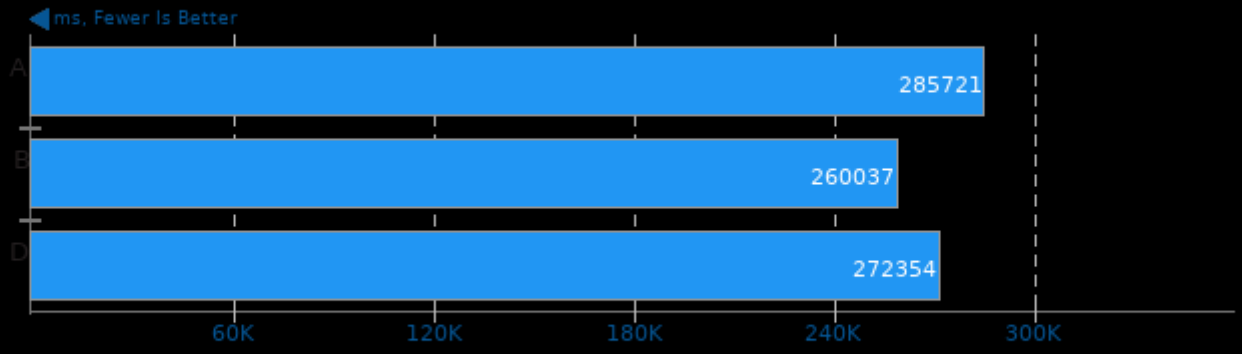
Target: CPU - Model: regnety_400m



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

OpenCV 4.5.4

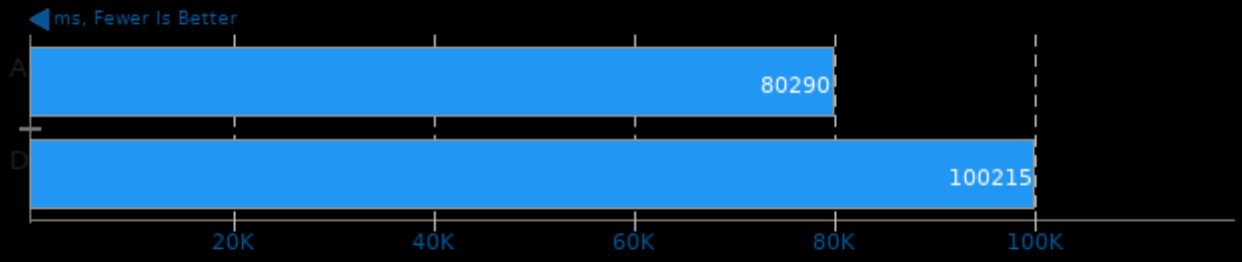
Test: Features 2D



1. (CXX) g++ options: -fsigned-char -pthread -fomit-frame-pointer -ffunction-sections -fdata-sections -msse -msse2 -msse3 -fvisibility=hidden -O3 -ldl -l

OpenCV 4.5.4

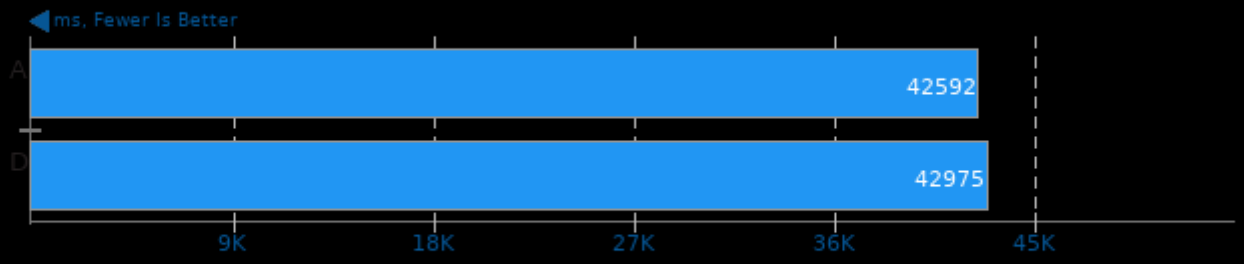
Test: Object Detection



1. (CXX) g++ options: -fsigned-char -pthread -fomit-frame-pointer -ffunction-sections -fdata-sections -msse -msse2 -msse3 -fvisibility=hidden -O3 -ldl -l

OpenCV 4.5.4

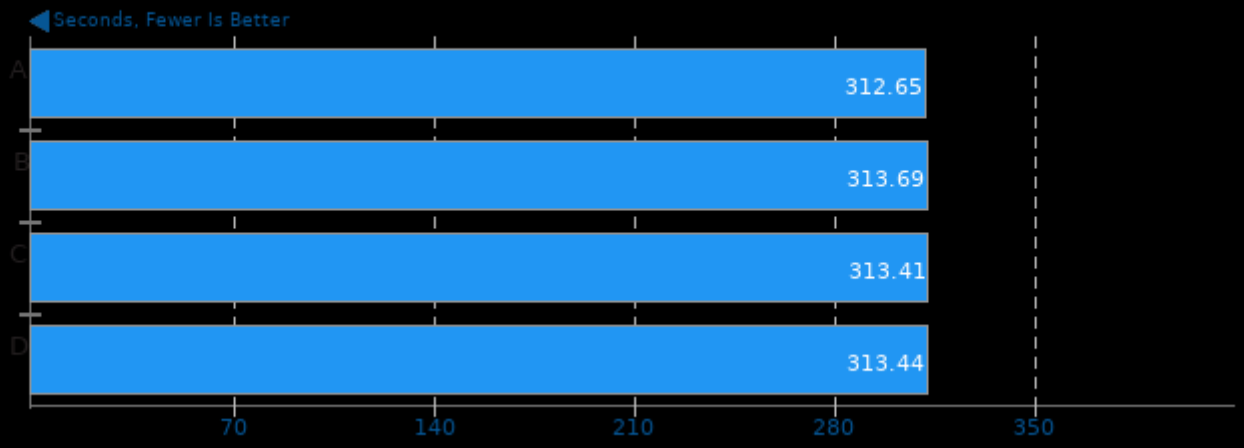
Test: DNN - Deep Neural Network



1. (CXX) g++ options: -fsigned-char -pthread -fomit-frame-pointer -ffunction-sections -fdata-sections -msse -msse2 -msse3 -fvisibility=hidden -O3 -ldl -l

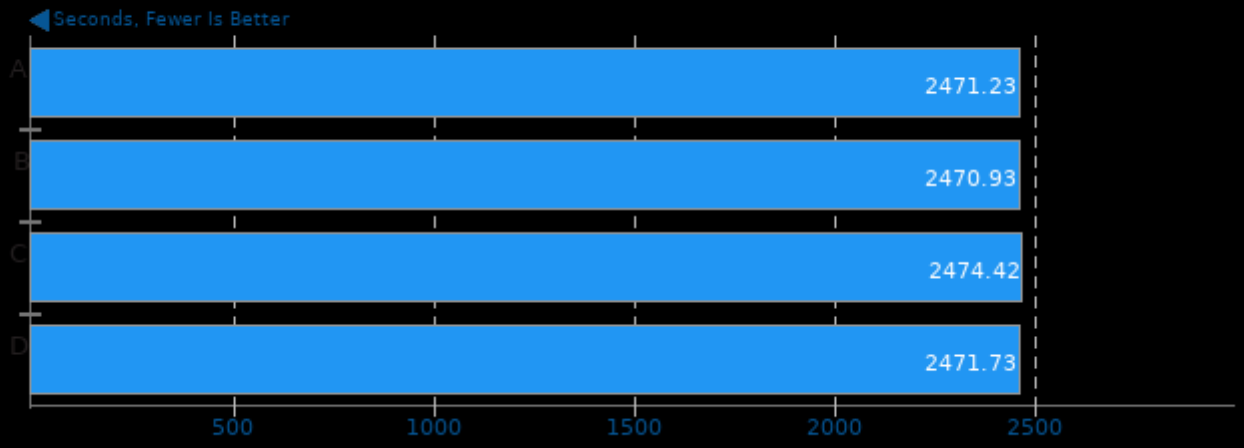
Timed Linux Kernel Compilation 5.14

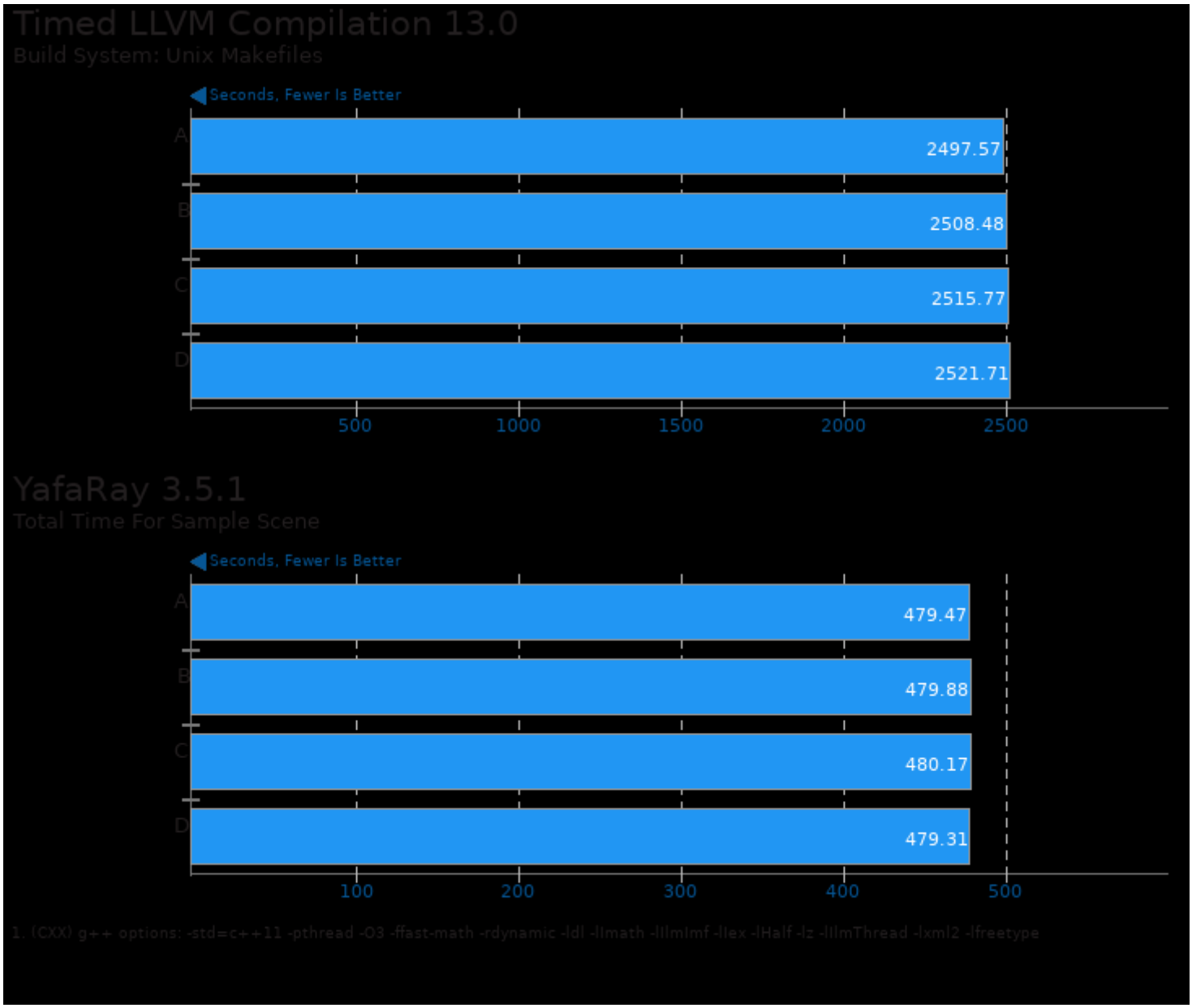
Time To Compile



Timed LLVM Compilation 13.0

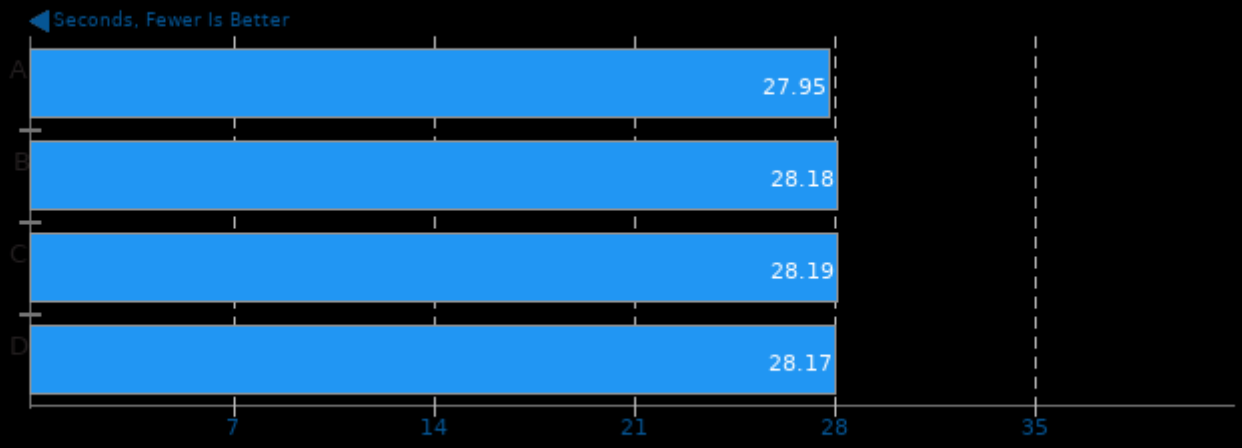
Build System: Ninja




Timed LLVM Compilation 13.0
Build System: Unix Makefiles
Seconds, Fewer Is Better
A
2497.57
B
2508.48
C
2515.77
D
2521.71
500
1000
1500
2000
2500
YafaRay 3.5.1
Total Time For Sample Scene
Seconds, Fewer Is Better
A
479.47
B
479.88
C
480.17
D
479.31
100
200
300
400
500
1. (CXX) g++ options: -std=c++11 -pthread -O3 -ffast-math -rdynamic -ldl -lmath -lIlmImf -lIex -lHalf -lz -lIlmThread -lxml2 -lfreetype

FLAC Audio Encoding 1.3.3

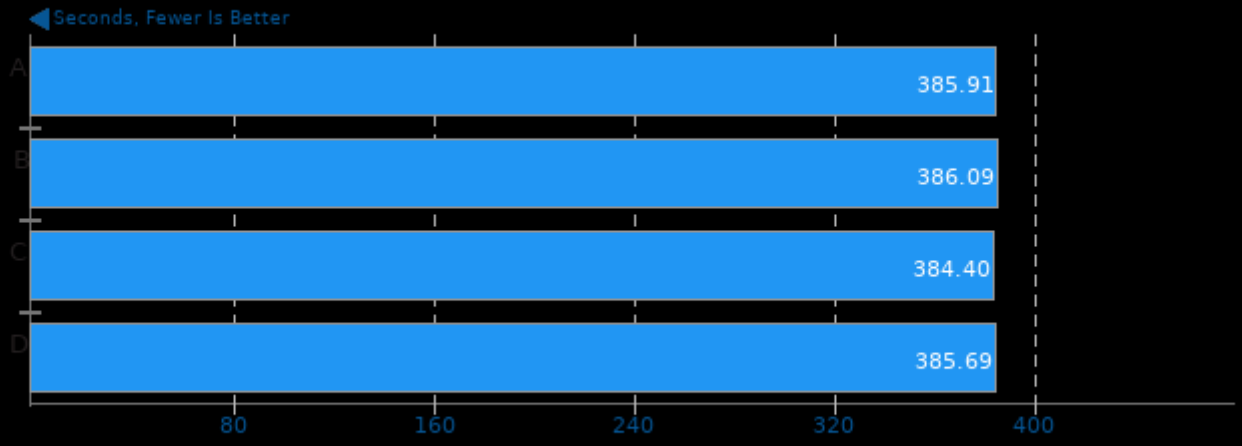
WAV To FLAC



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

Tachyon 0.99b6

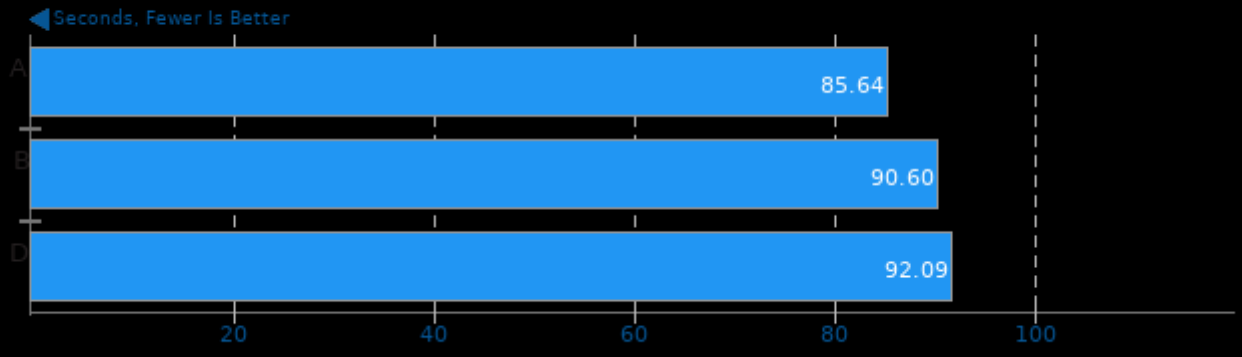
Total Time

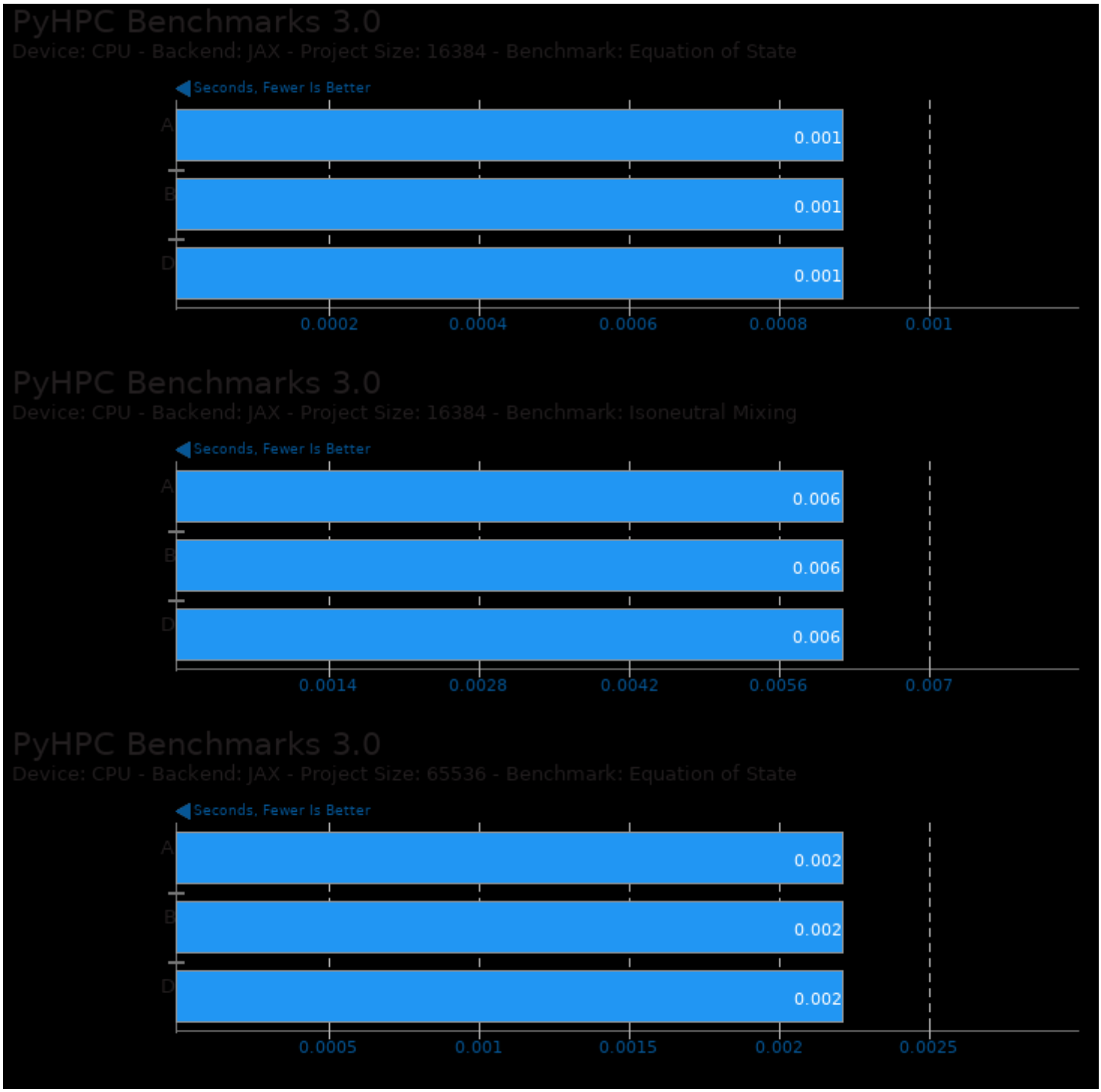


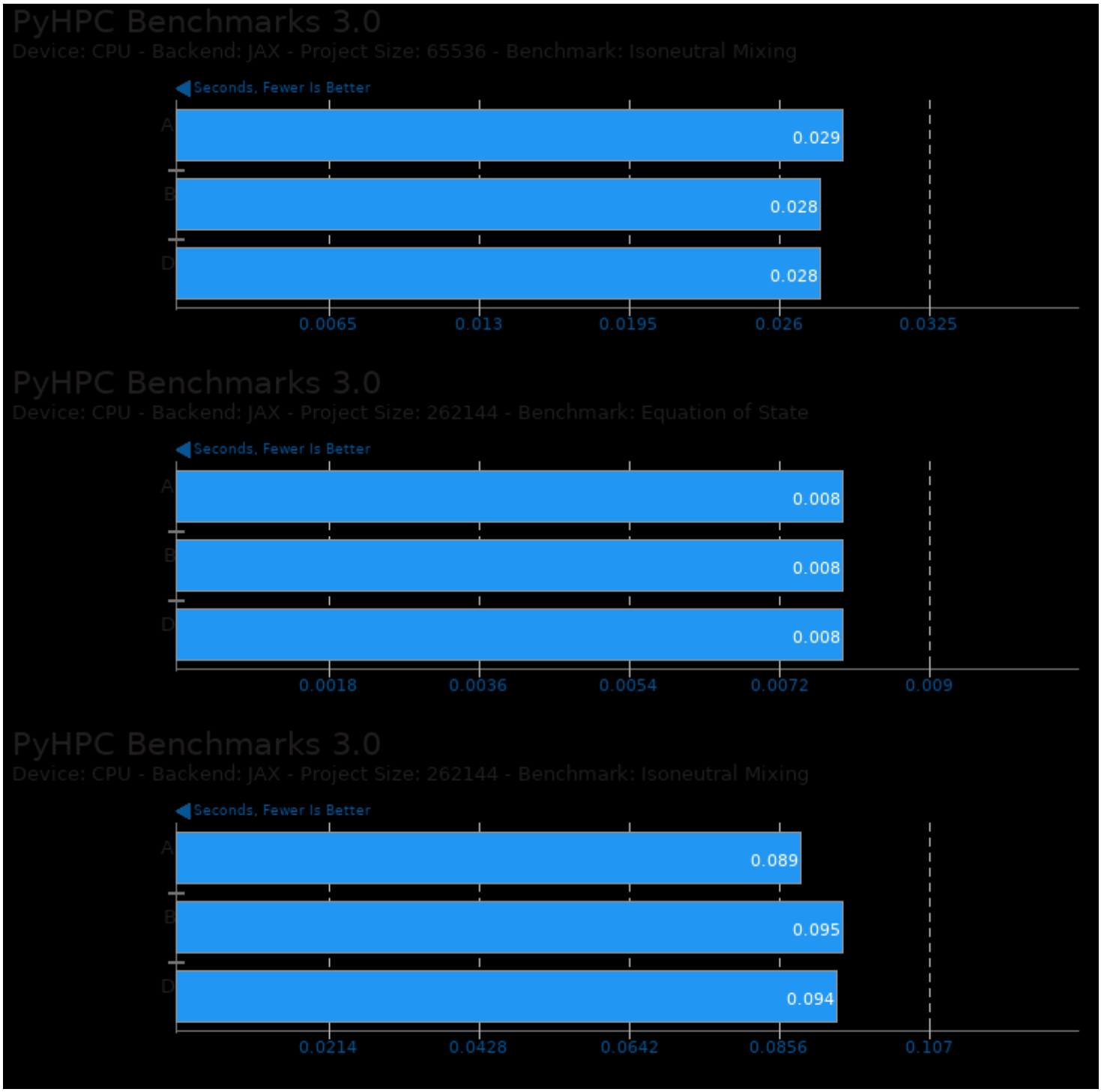
1. (CC) gcc options: -m64 -O3 -fomit-frame-pointer -ffast-math -ltachyon -lm -lpthread

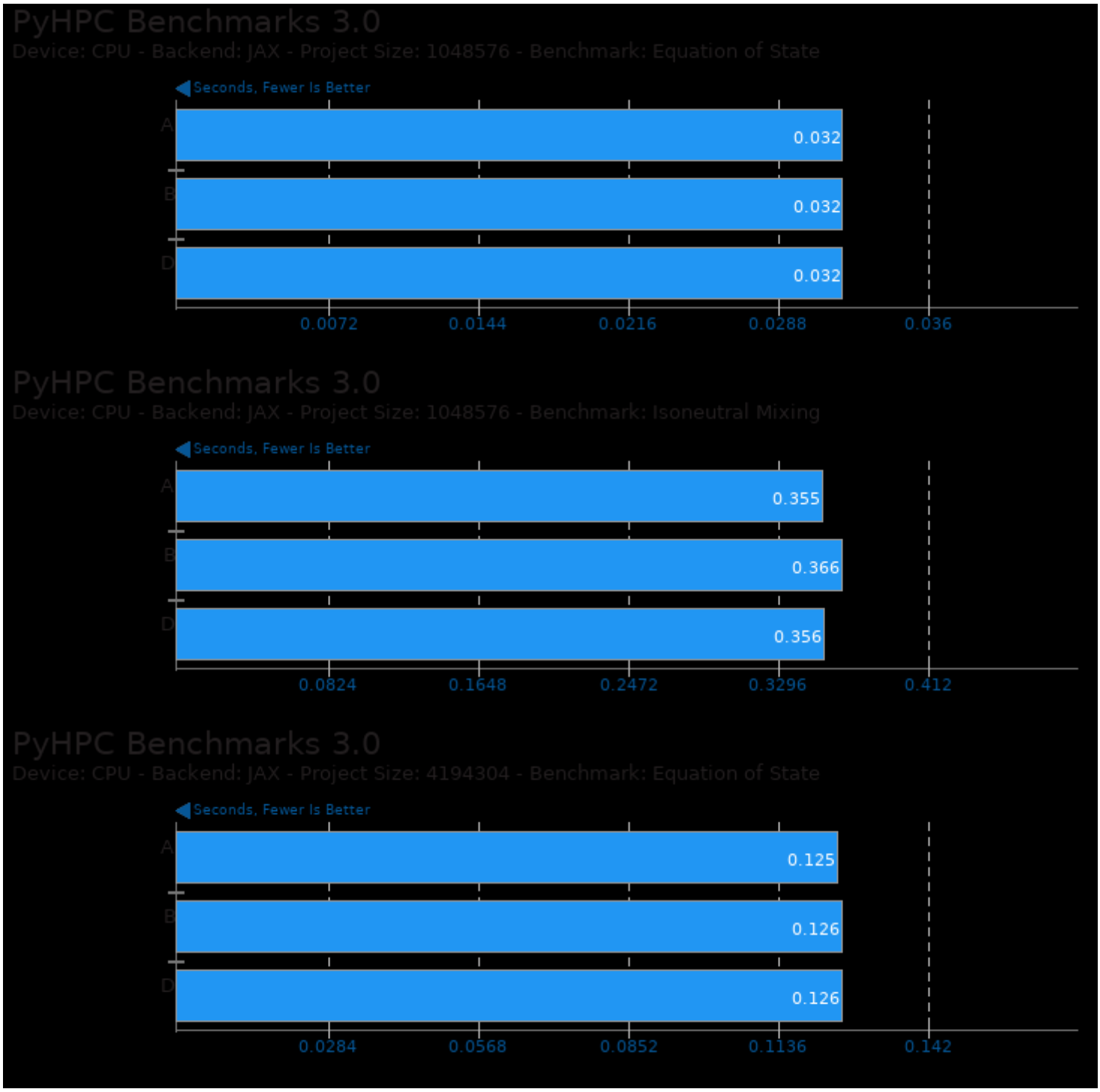
RAR Compression 6.0.2

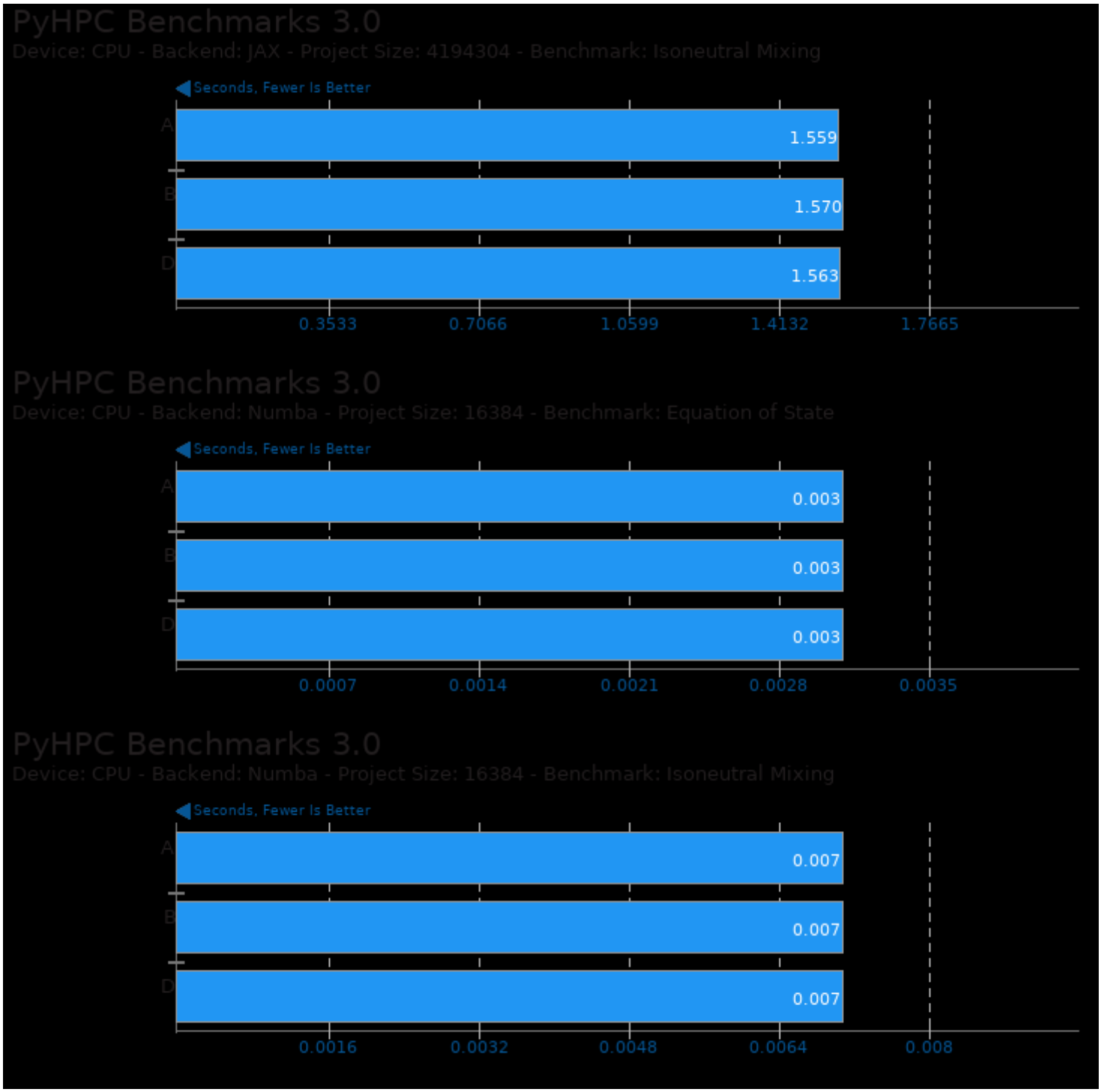
Linux Source Tree Archiving To RAR

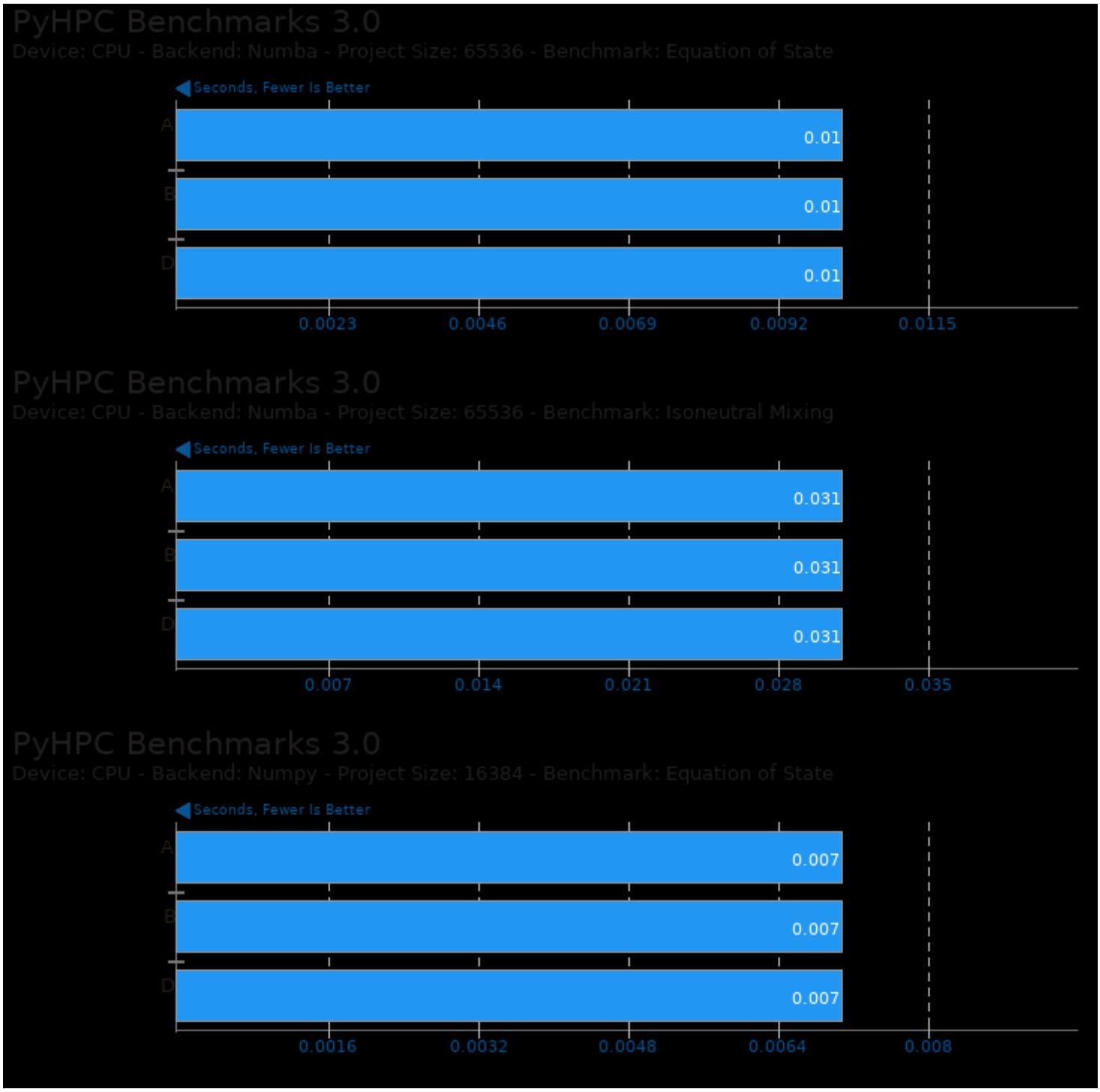


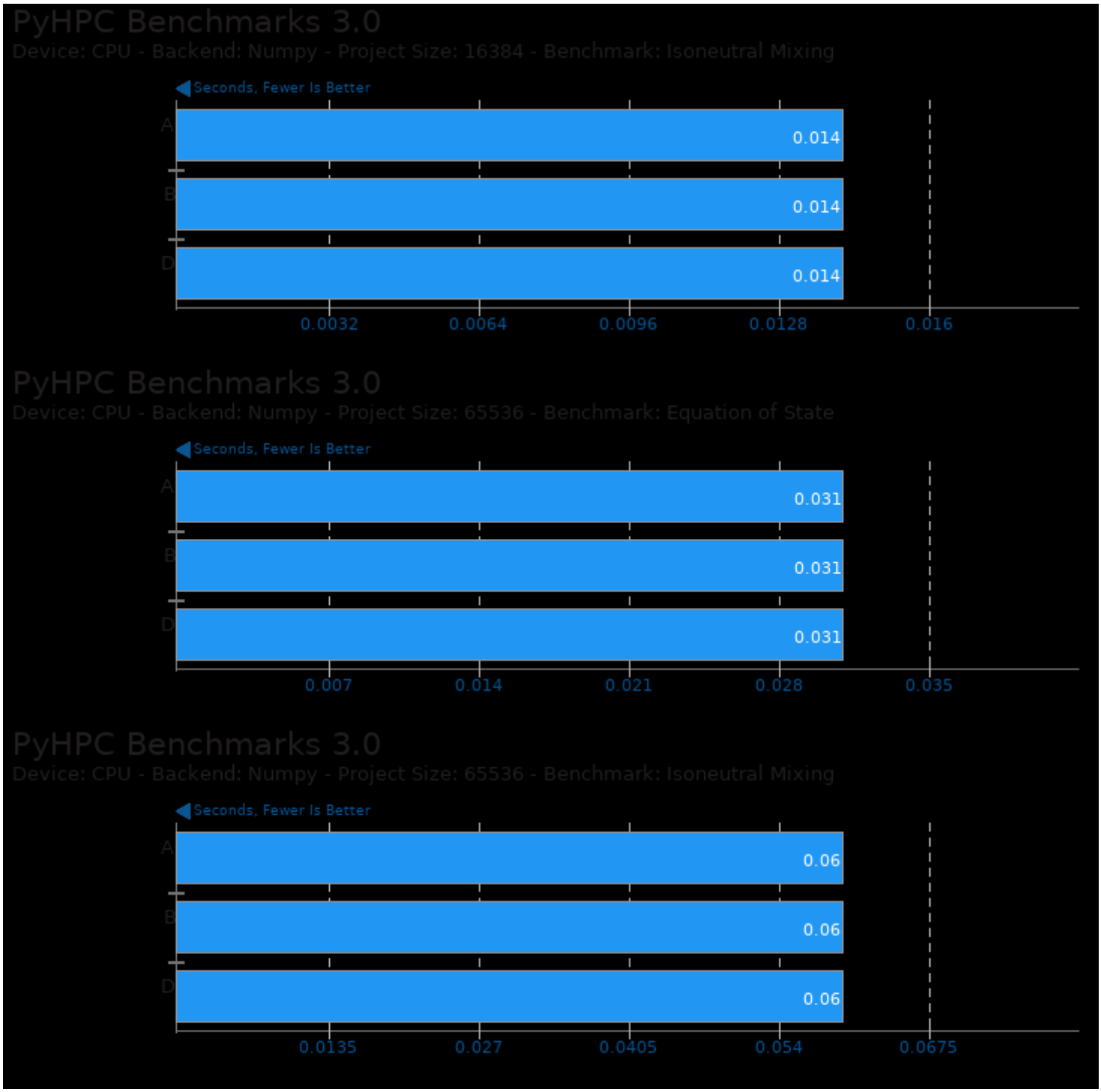

PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.001
0.001
0.001
0.0002
0.0004
0.0006
0.0008
0.001
PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.006
0.006
0.006
0.0014
0.0028
0.0042
0.0056
0.007
PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.002
0.002
0.002
0.0005
0.001
0.0015
0.002
0.0025

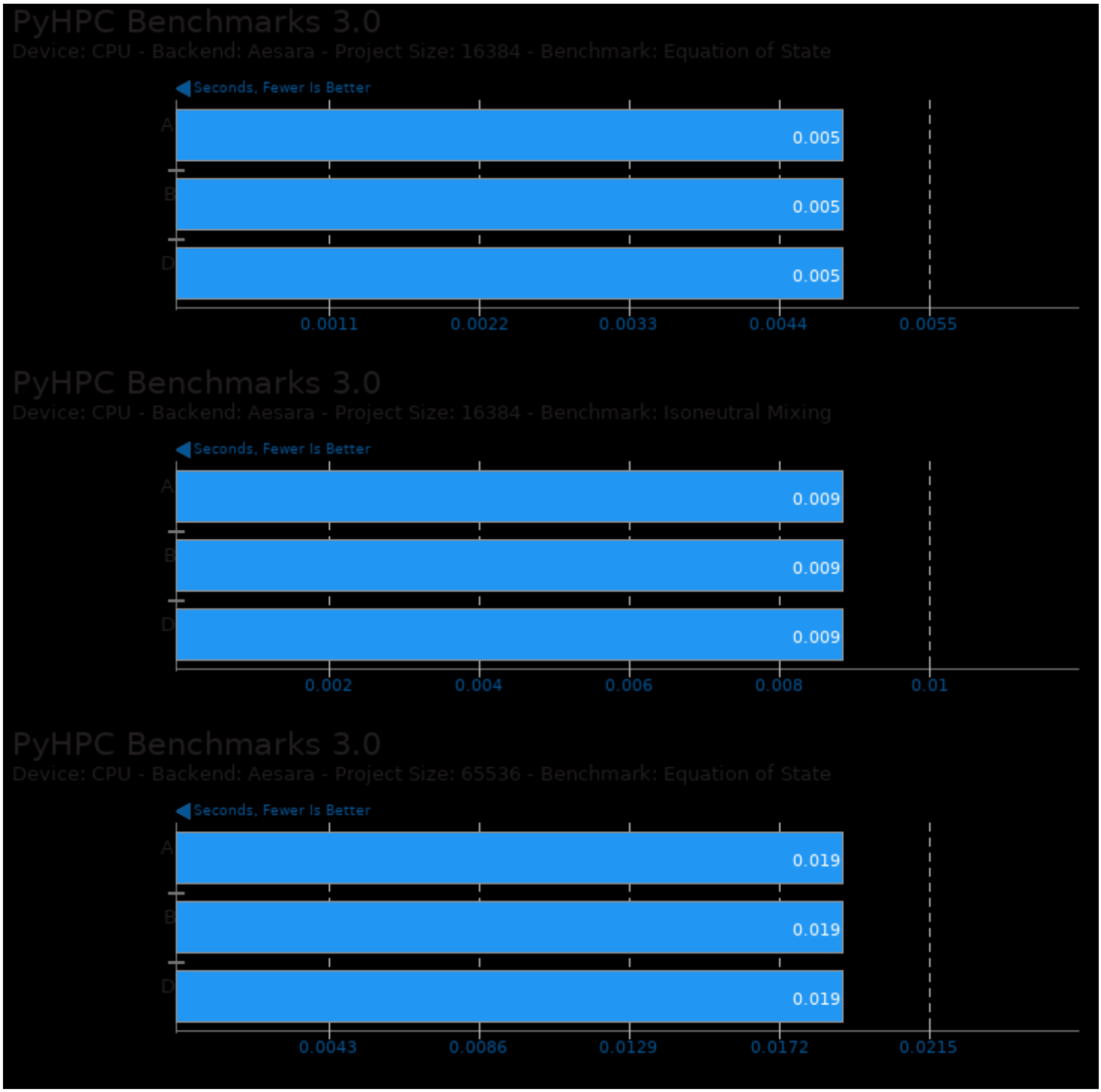

PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.029
0.028
0.028
0.0065
0.013
0.0195
0.026
0.0325
PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.008
0.008
0.008
0.0018
0.0036
0.0054
0.0072
0.009
PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.089
0.095
0.094
0.0214
0.0428
0.0642
0.0856
0.107

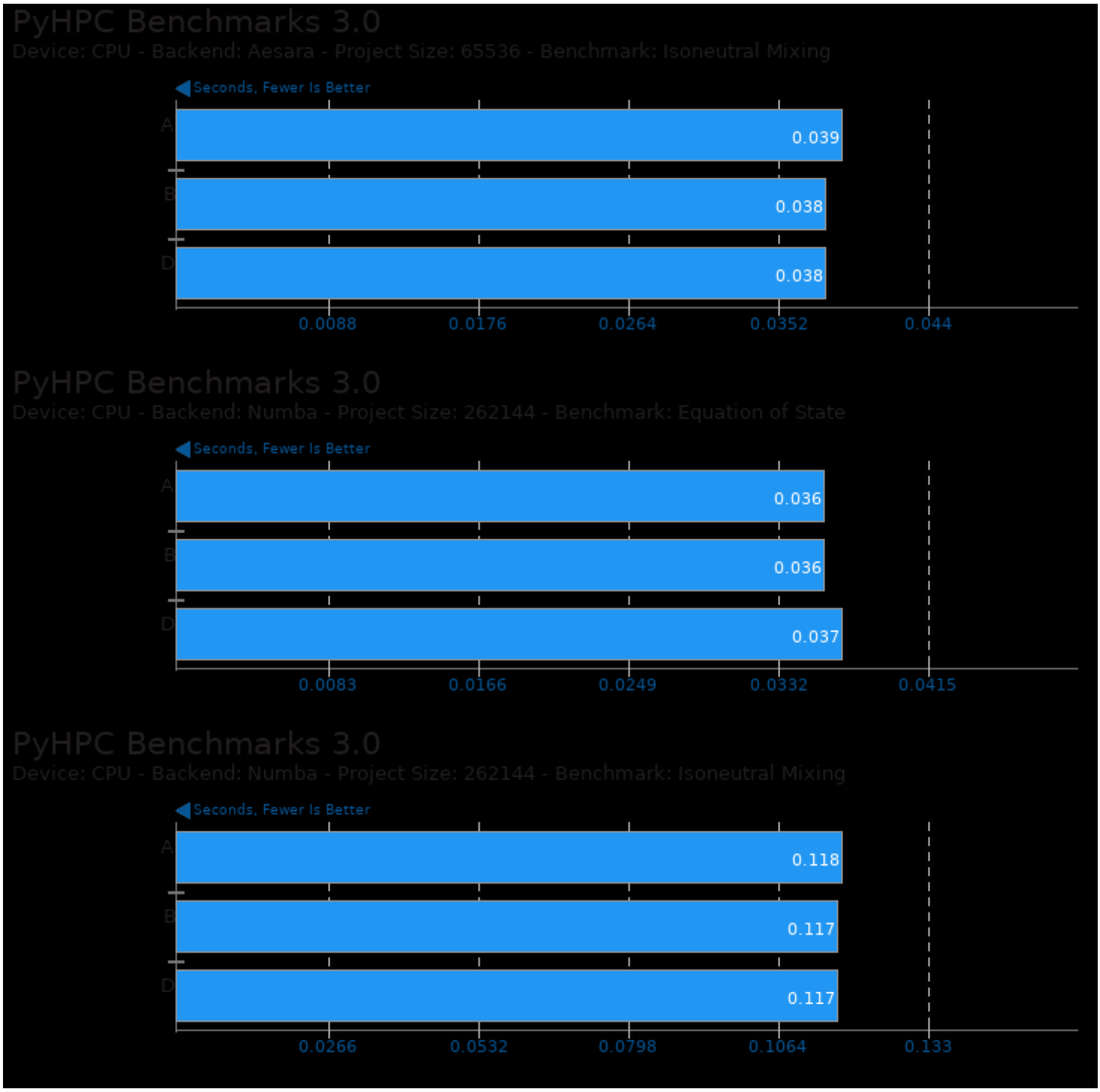

PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.032
0.032
0.032
0.0072
0.0144
0.0216
0.0288
0.036
PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.355
0.366
0.356
0.0824
0.1648
0.2472
0.3296
0.412
PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.125
0.126
0.126
0.0284
0.0568
0.0852
0.1136
0.142

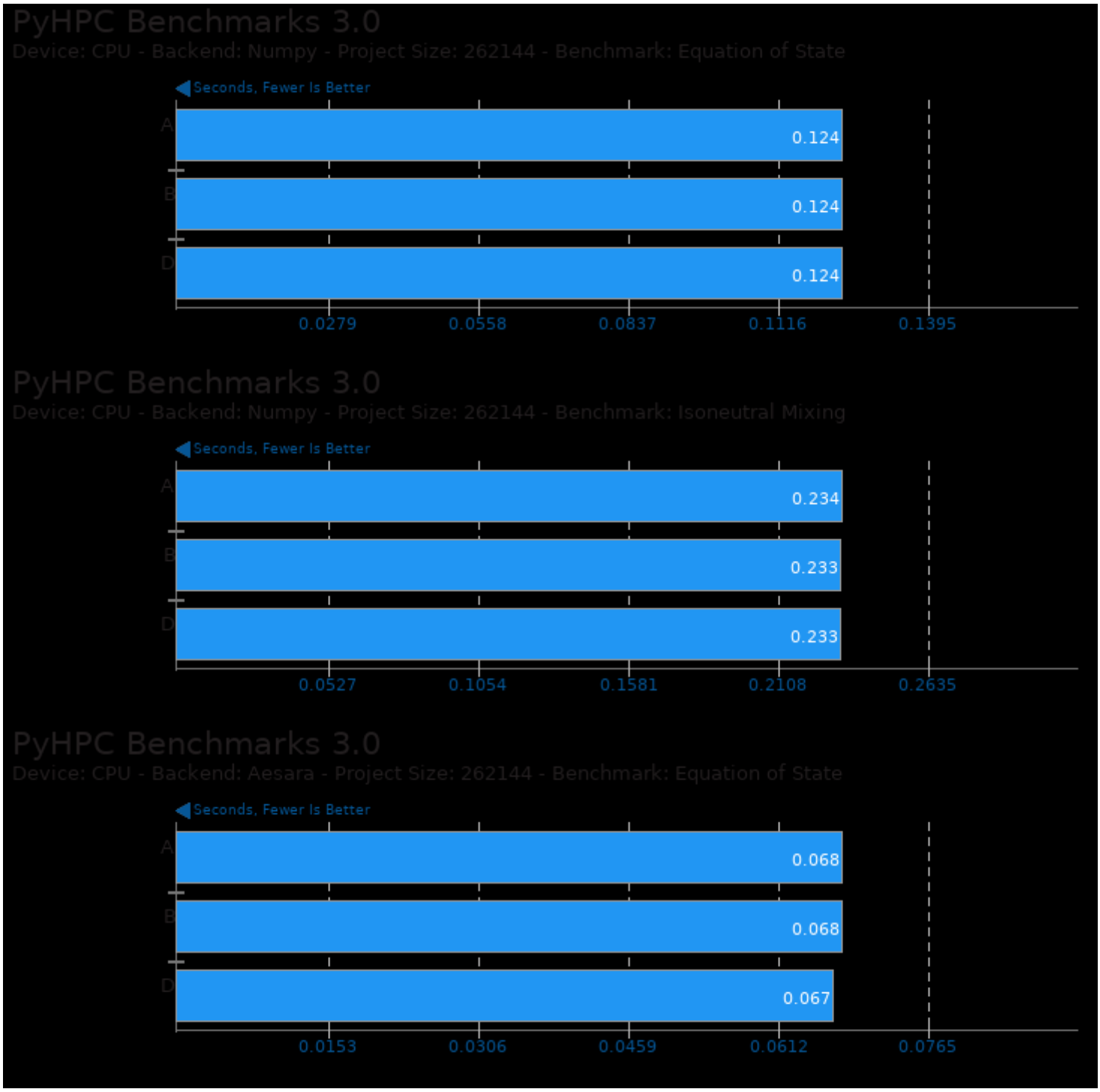

PyHPC Benchmarks 3.0
Device: CPU - Backend: JAX - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
1.559
1.570
1.563
0.3533
0.7066
1.0599
1.4132
1.7665
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.003
0.003
0.003
0.0007
0.0014
0.0021
0.0028
0.0035
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.007
0.007
0.007
0.0016
0.0032
0.0048
0.0064
0.008

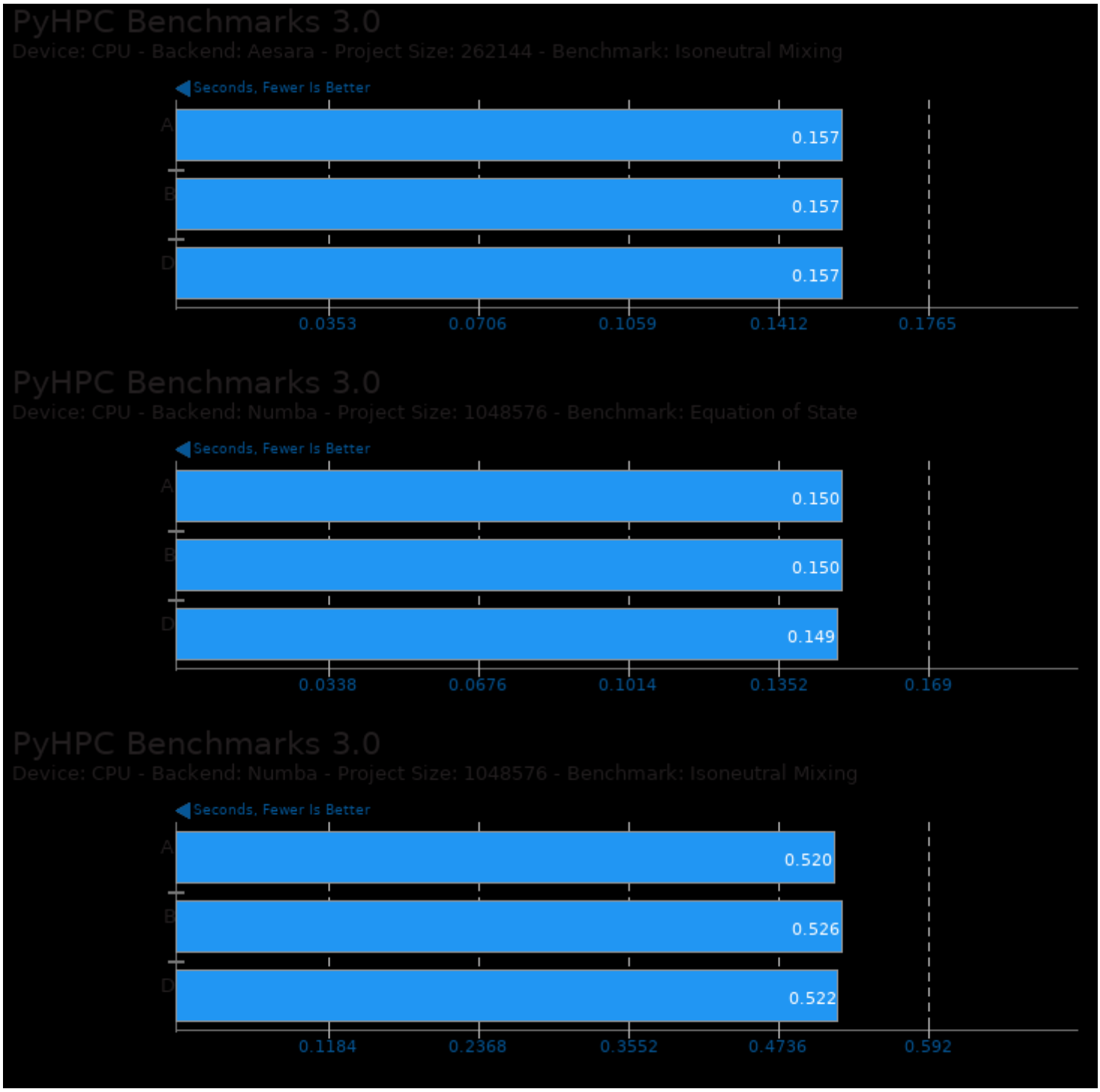

PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.01
0.01
0.01
0.0023
0.0046
0.0069
0.0092
0.0115
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.031
0.031
0.031
0.007
0.014
0.021
0.028
0.035
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.007
0.007
0.007
0.0016
0.0032
0.0048
0.0064
0.008

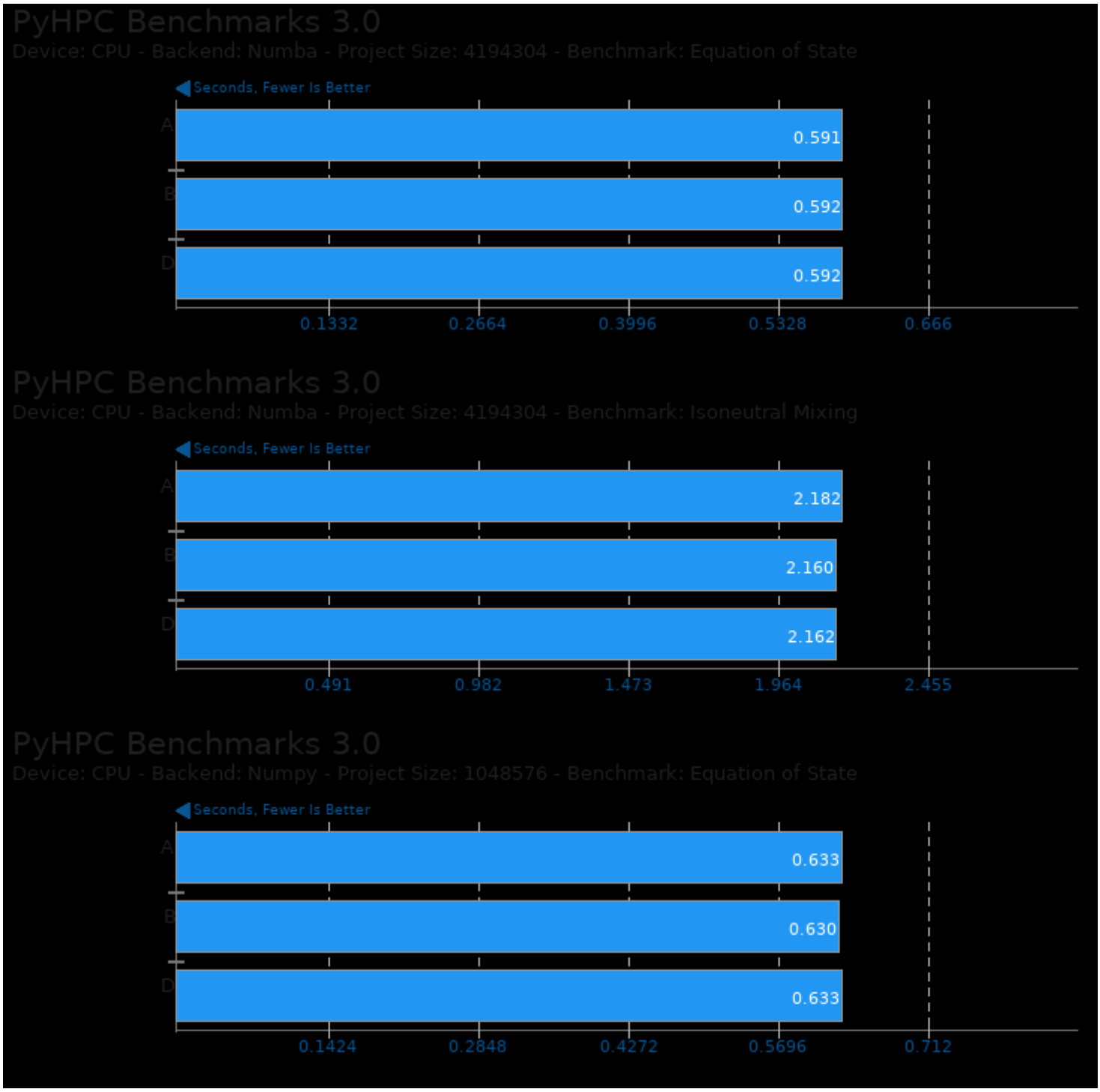

PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.014
0.014
0.014
0.0032
0.0064
0.0096
0.0128
0.016
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.031
0.031
0.031
0.007
0.014
0.021
0.028
0.035
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.06
0.06
0.06
0.0135
0.027
0.0405
0.054
0.0675

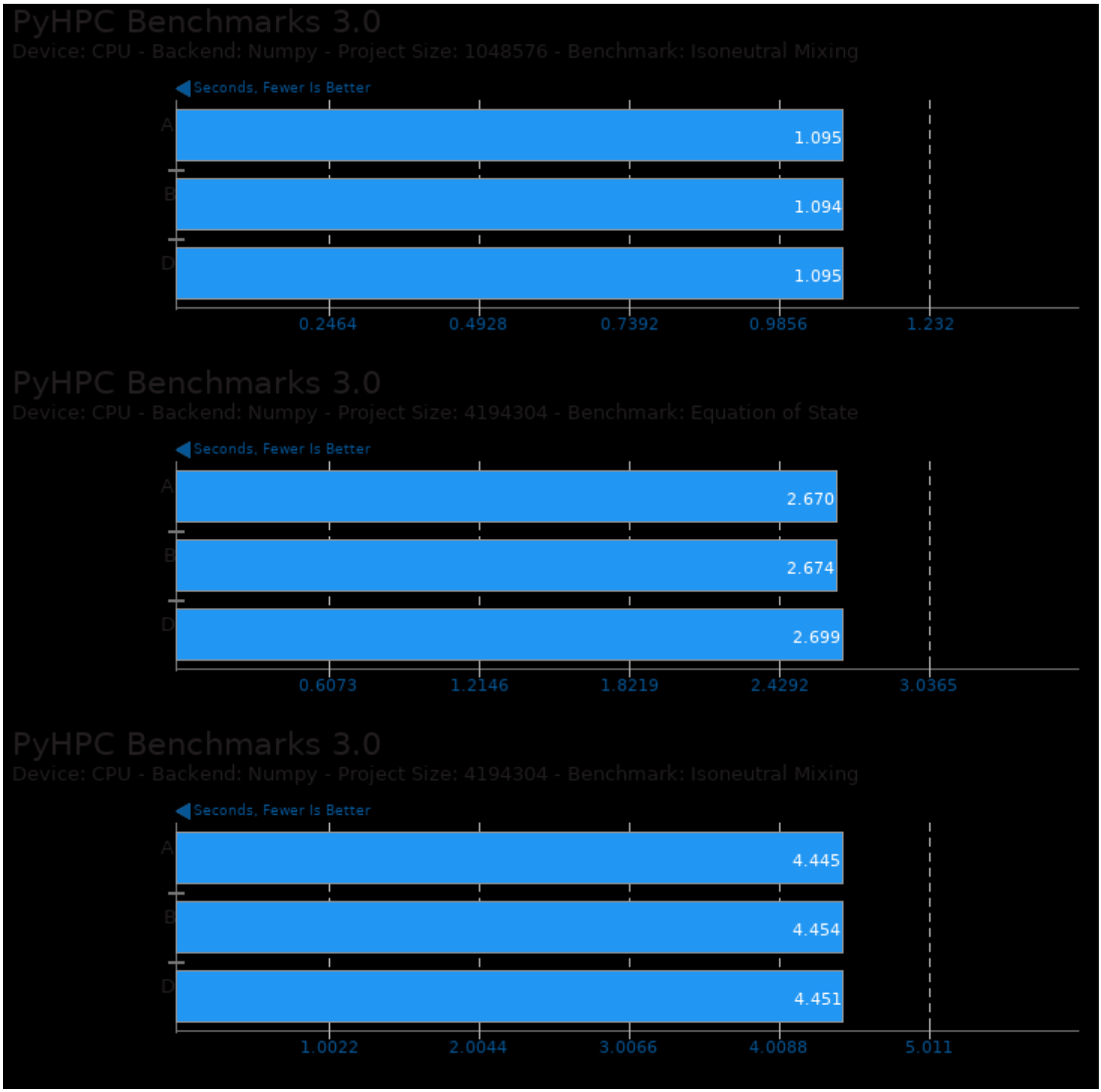

PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.005
0.005
0.005
0.0011
0.0022
0.0033
0.0044
0.0055
PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.009
0.009
0.009
0.002
0.004
0.006
0.008
0.01
PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.019
0.019
0.019
0.0043
0.0086
0.0129
0.0172
0.0215

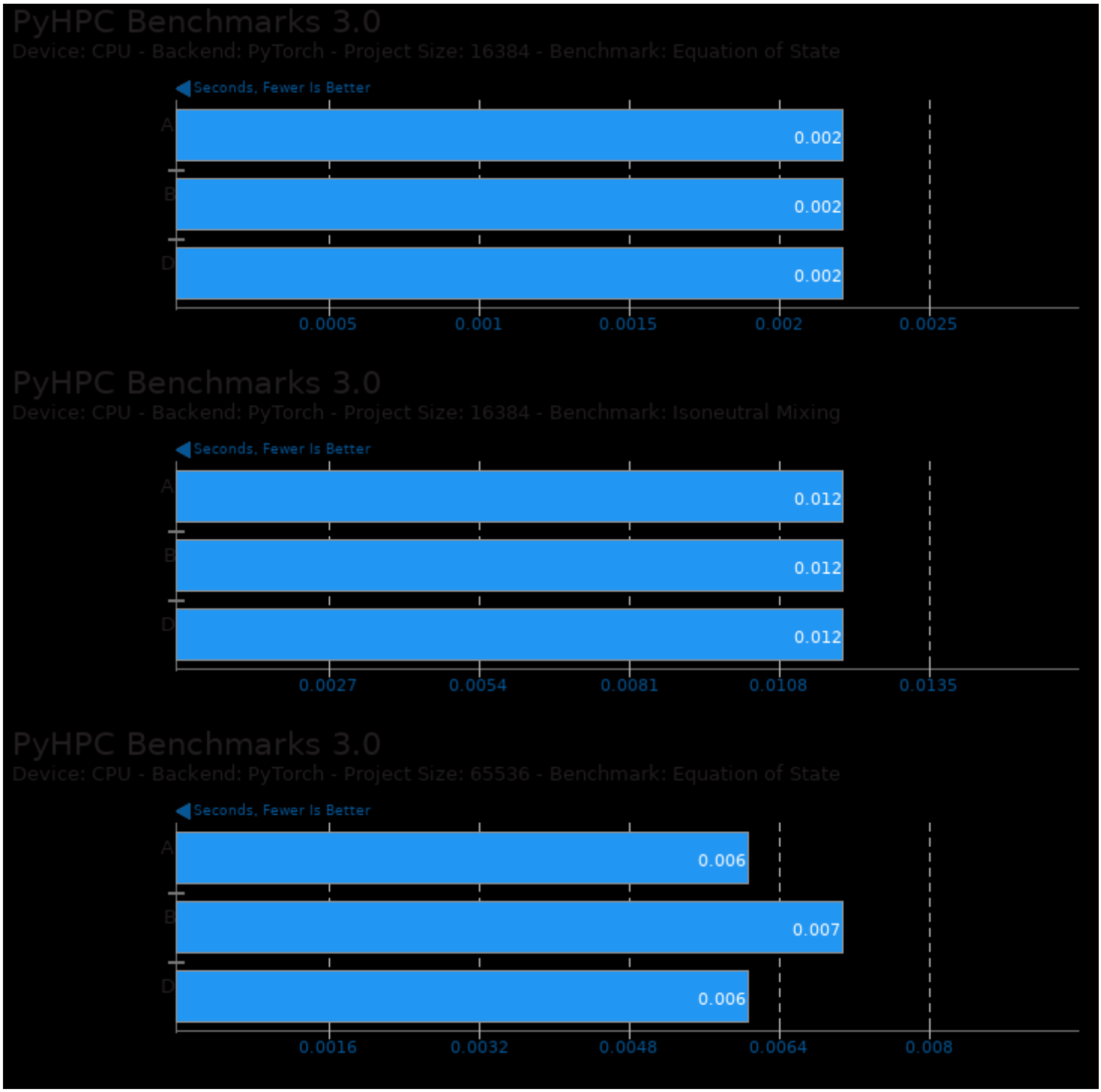

PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.039
0.038
0.038
0.0088
0.0176
0.0264
0.0352
0.044
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.036
0.036
0.037
0.0083
0.0166
0.0249
0.0332
0.0415
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.118
0.117
0.117
0.0266
0.0532
0.0798
0.1064
0.133

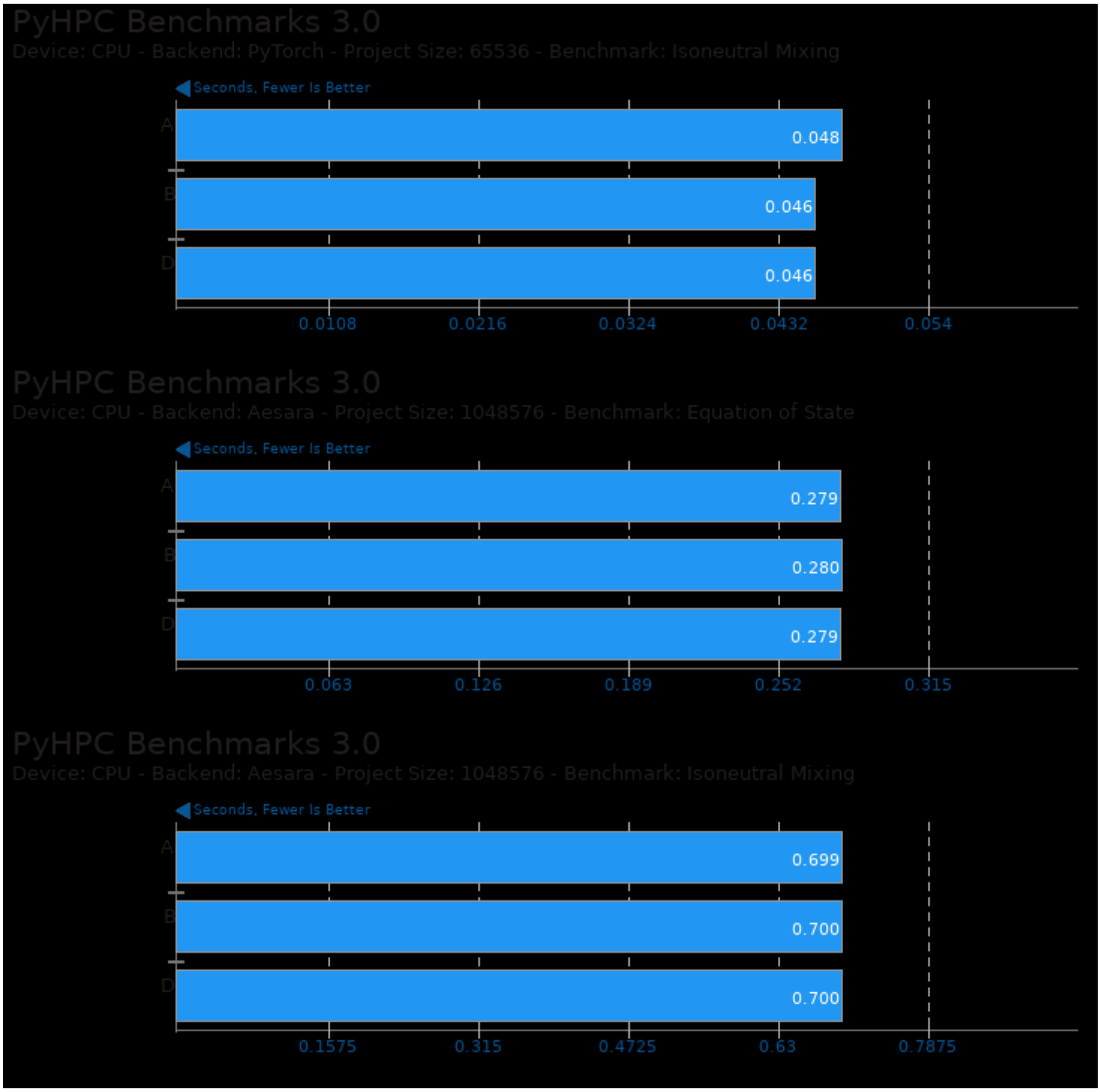

PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.124
0.124
0.124
0.0279
0.0558
0.0837
0.1116
0.1395
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.234
0.233
0.233
0.0527
0.1054
0.1581
0.2108
0.2635
PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.068
0.068
0.067
0.0153
0.0306
0.0459
0.0612
0.0765

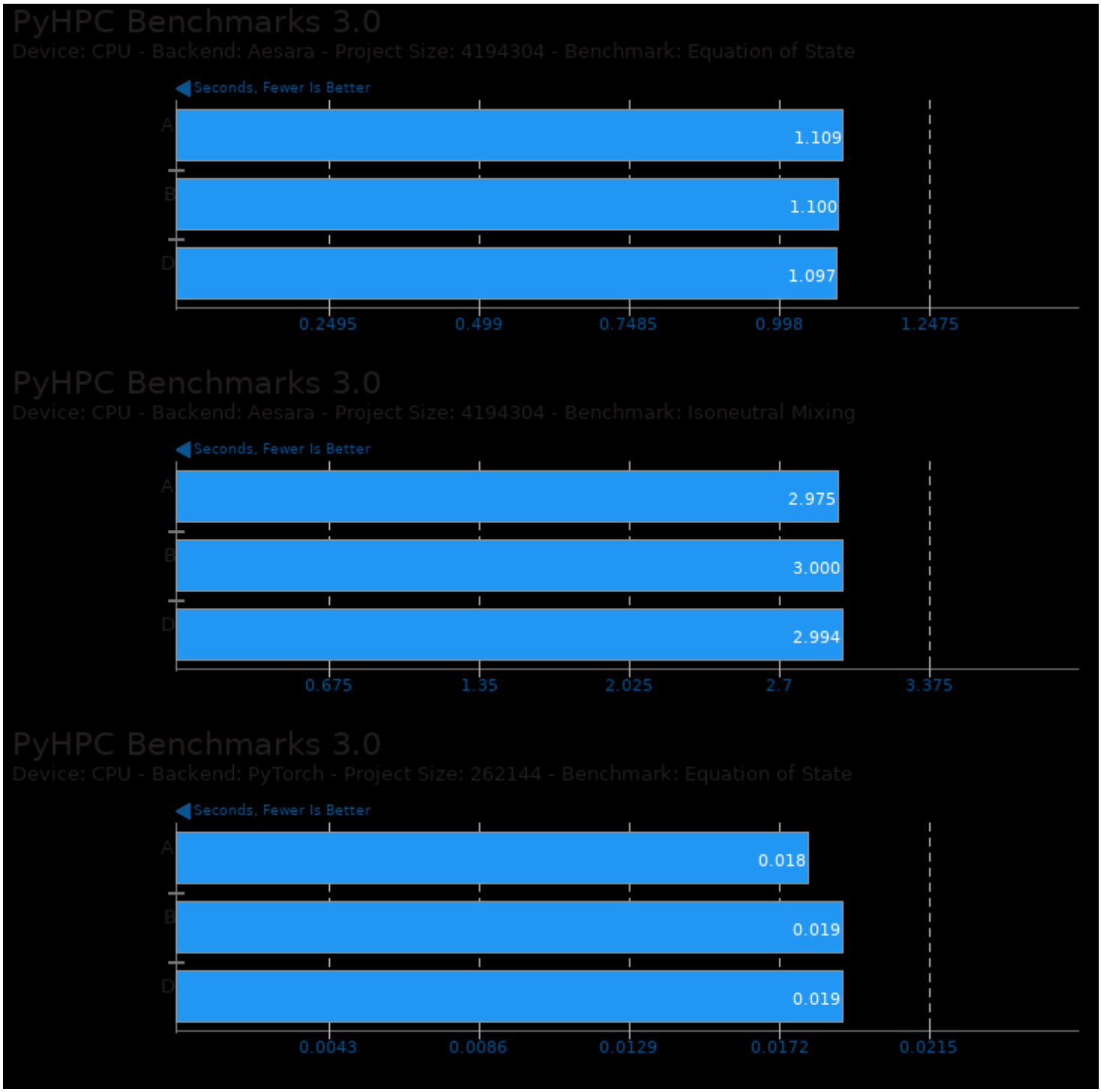

PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.157
0.157
0.157
0.0353
0.0706
0.1059
0.1412
0.1765
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.150
0.150
0.149
0.0338
0.0676
0.1014
0.1352
0.169
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.520
0.526
0.522
0.1184
0.2368
0.3552
0.4736
0.592

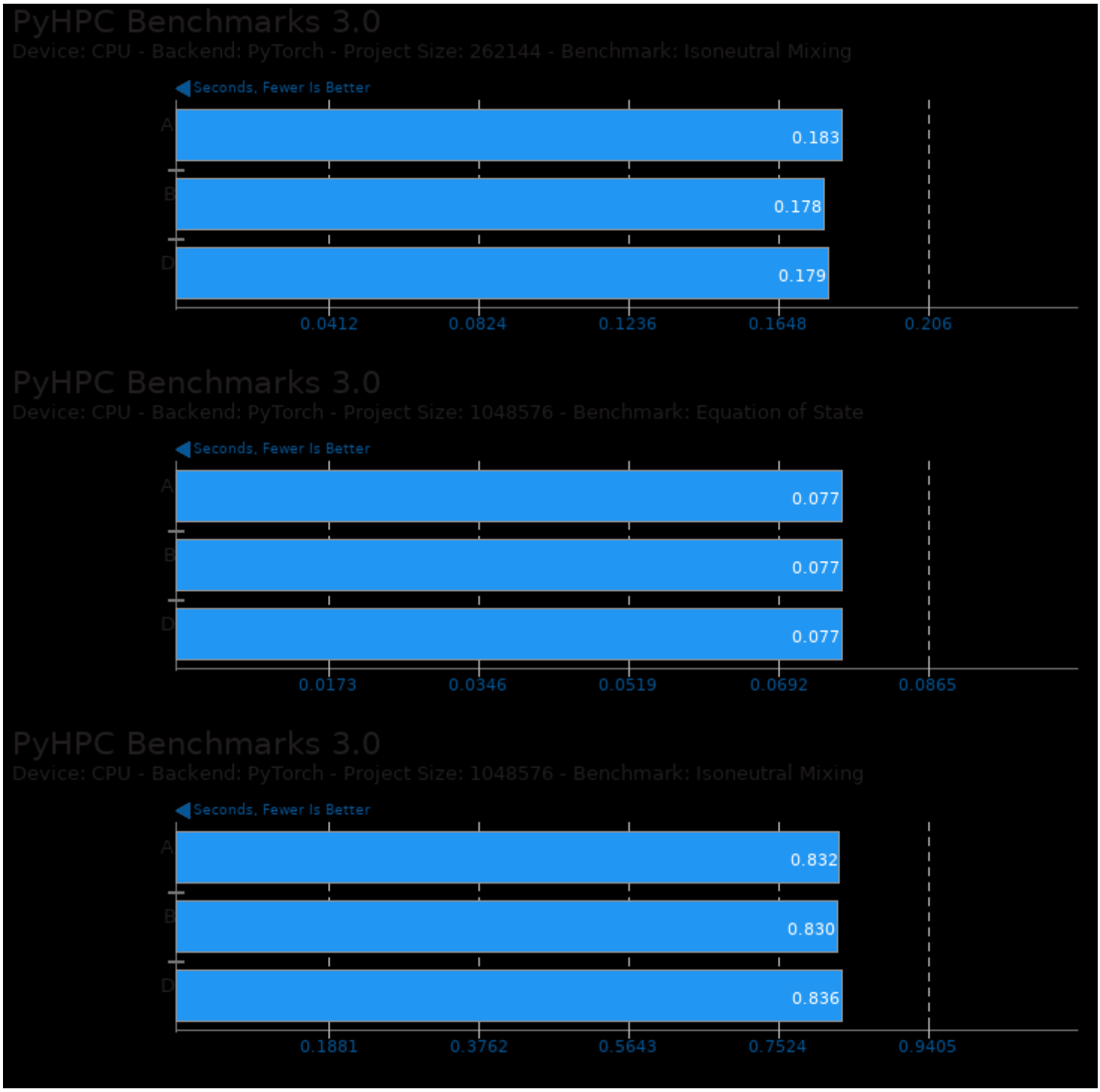

PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.591
0.592
0.592
0.1332
0.2664
0.3996
0.5328
0.666
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numba - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
2.182
2.160
2.162
0.491
0.982
1.473
1.964
2.455
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.633
0.630
0.633
0.1424
0.2848
0.4272
0.5696
0.712

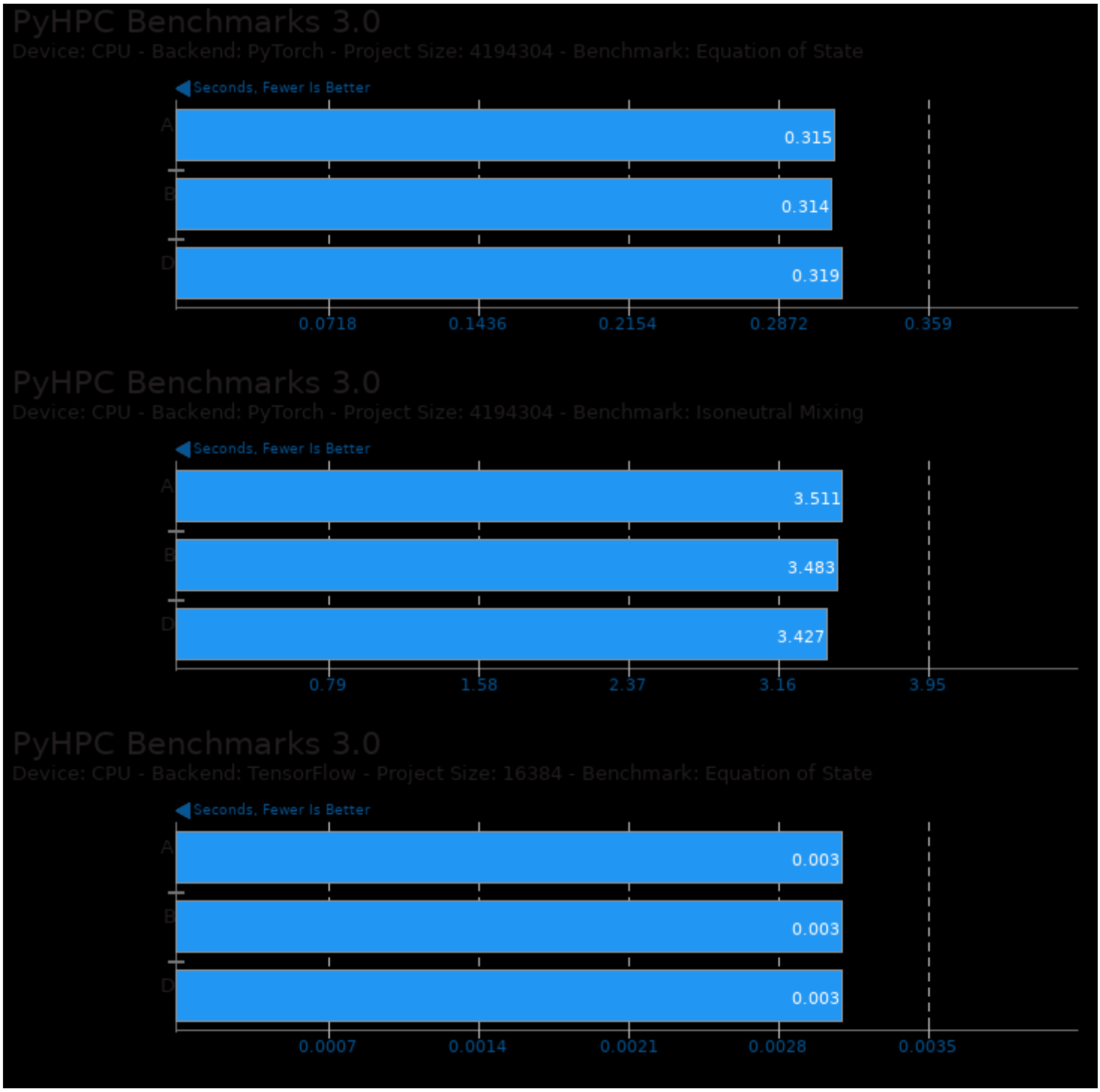

PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
1.095
1.094
1.095
0.2464
0.4928
0.7392
0.9856
1.232
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
2.670
2.674
2.699
0.6073
1.2146
1.8219
2.4292
3.0365
PyHPC Benchmarks 3.0
Device: CPU - Backend: Numpy - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
4.445
4.454
4.451
1.0022
2.0044
3.0066
4.0088
5.011

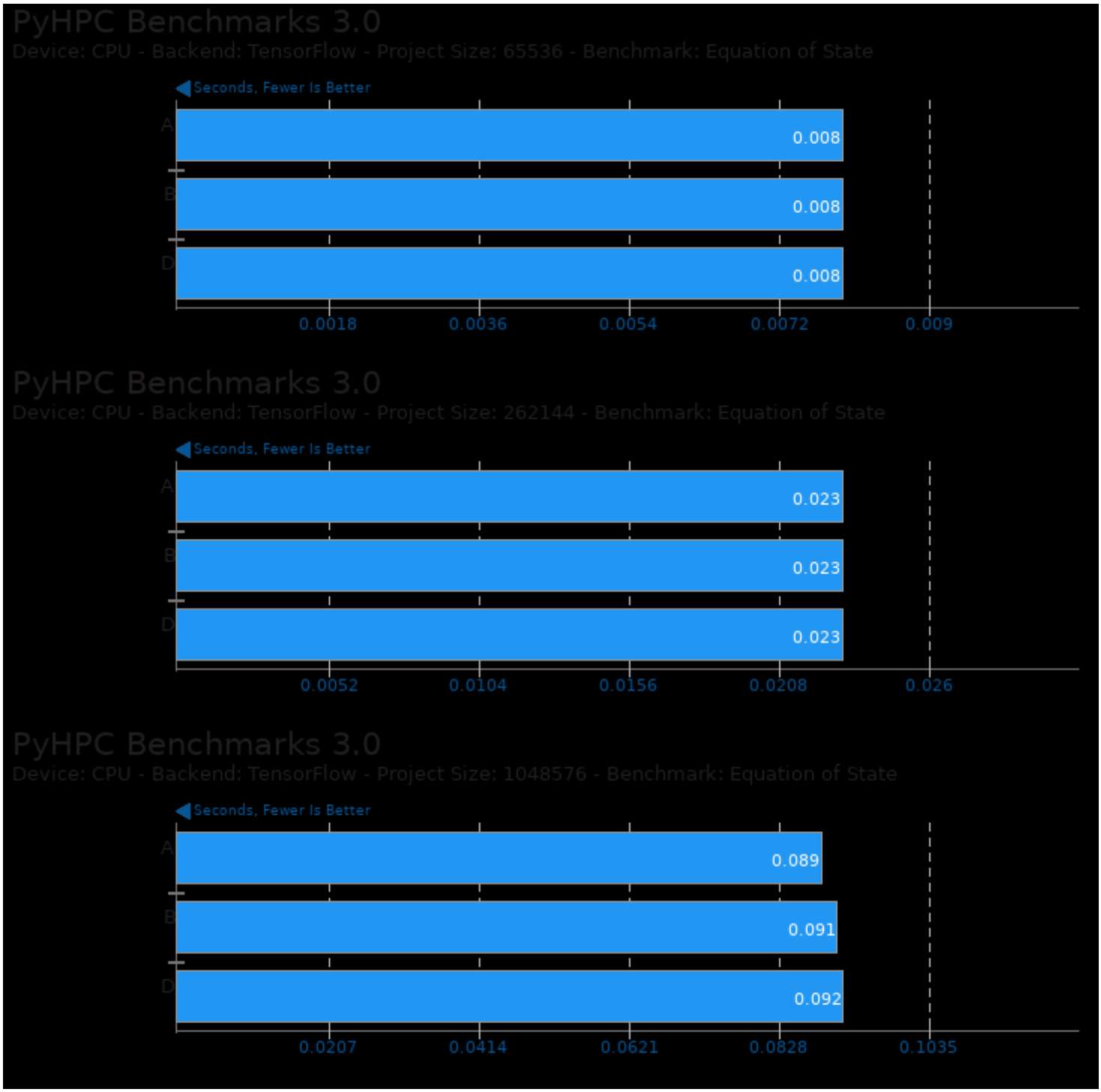

PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.002
0.002
0.002
0.0005
0.001
0.0015
0.002
0.0025
PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 16384 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.012
0.012
0.012
0.0027
0.0054
0.0081
0.0108
0.0135
PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.006
0.007
0.006
0.0016
0.0032
0.0048
0.0064
0.008

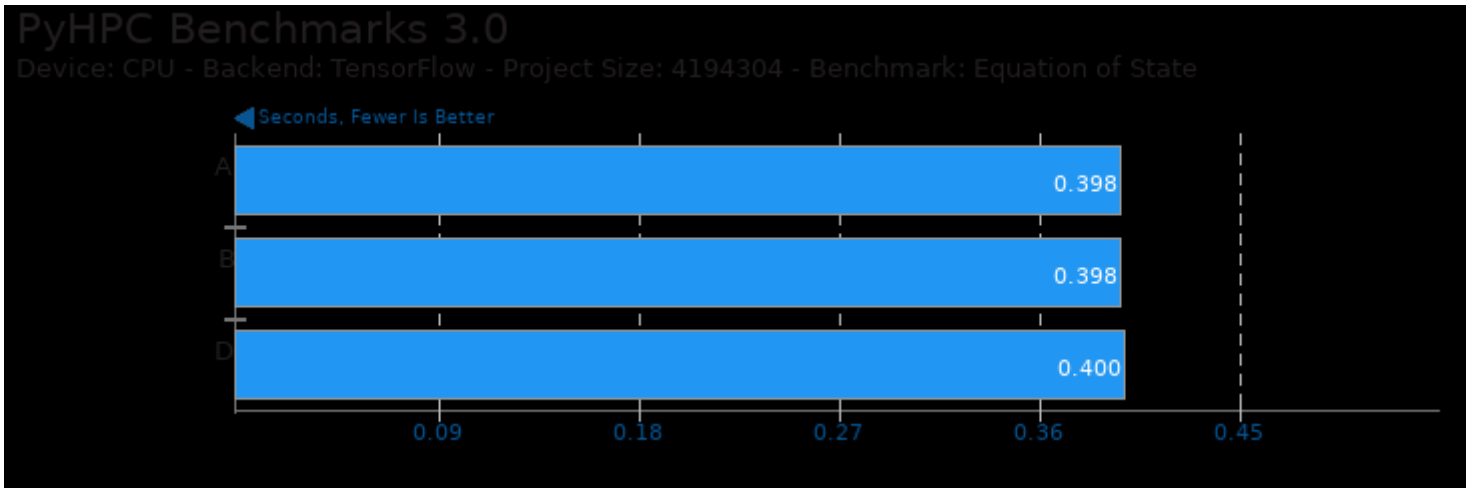

PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 65536 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.048
0.046
0.046
0.0108
0.0216
0.0324
0.0432
0.054
PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.279
0.280
0.279
0.063
0.126
0.189
0.252
0.315
PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.699
0.700
0.700
0.1575
0.315
0.4725
0.63
0.7875


PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
1.109
1.100
1.097
0.2495
0.499
0.7485
0.998
1.2475
PyHPC Benchmarks 3.0
Device: CPU - Backend: Aesara - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
2.975
3.000
2.994
0.675
1.35
2.025
2.7
3.375
PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.018
0.019
0.019
0.0043
0.0086
0.0129
0.0172
0.0215

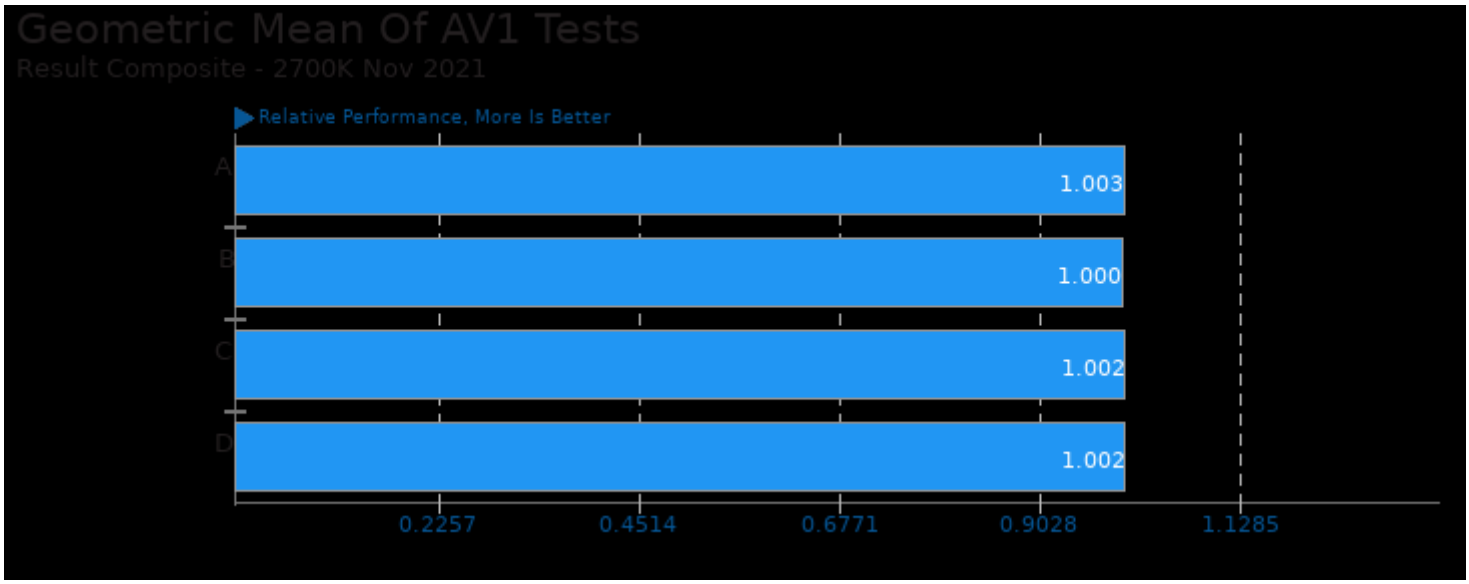

PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 262144 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.183
0.178
0.179
0.0412
0.0824
0.1236
0.1648
0.206
PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.077
0.077
0.077
0.0173
0.0346
0.0519
0.0692
0.0865
PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 1048576 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
0.832
0.830
0.836
0.1881
0.3762
0.5643
0.7524
0.9405


PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.315
0.314
0.319
0.0718
0.1436
0.2154
0.2872
0.359
PyHPC Benchmarks 3.0
Device: CPU - Backend: PyTorch - Project Size: 4194304 - Benchmark: Isoneutral Mixing
Seconds, Fewer Is Better
A
B
D
3.511
3.483
3.427
0.79
1.58
2.37
3.16
3.95
PyHPC Benchmarks 3.0
Device: CPU - Backend: TensorFlow - Project Size: 16384 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.003
0.003
0.003
0.0007
0.0014
0.0021
0.0028
0.0035

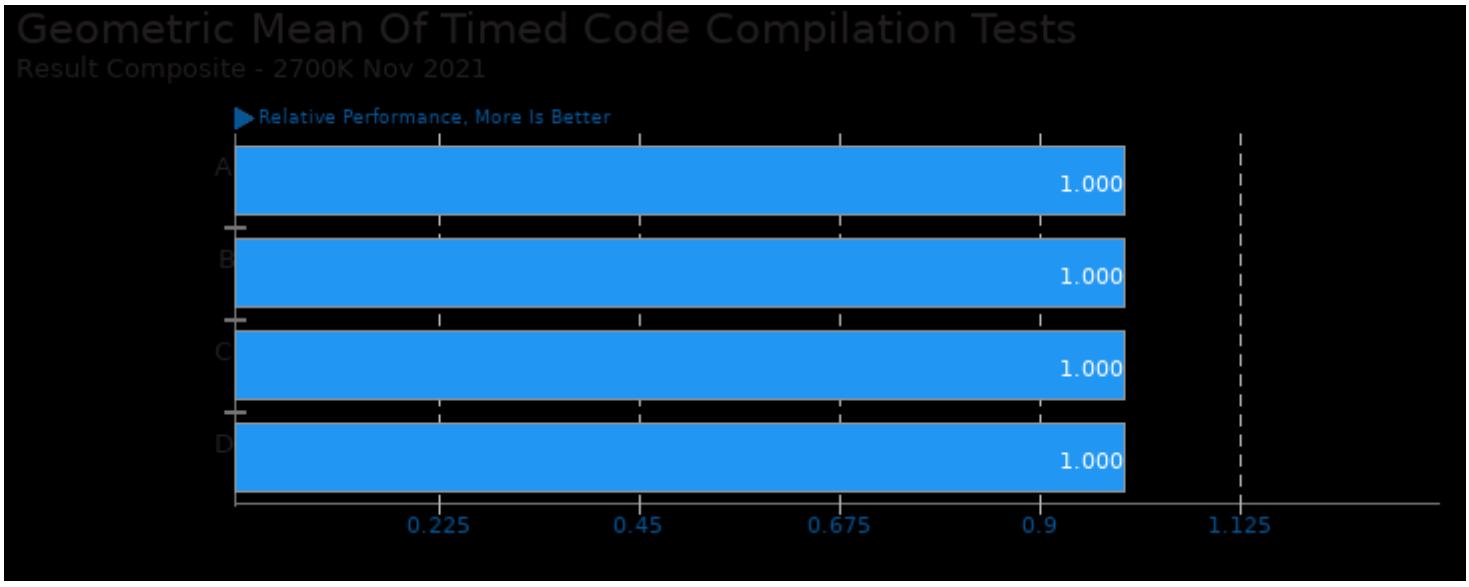

PyHPC Benchmarks 3.0
Device: CPU - Backend: TensorFlow - Project Size: 65536 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.008
0.008
0.008
0.0018
0.0036
0.0054
0.0072
0.009
PyHPC Benchmarks 3.0
Device: CPU - Backend: TensorFlow - Project Size: 262144 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.023
0.023
0.023
0.0052
0.0104
0.0156
0.0208
0.026
PyHPC Benchmarks 3.0
Device: CPU - Backend: TensorFlow - Project Size: 1048576 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.089
0.091
0.092
0.0207
0.0414
0.0621
0.0828
0.1035


PyHPC Benchmarks 3.0
Device: CPU - Backend: TensorFlow - Project Size: 4194304 - Benchmark: Equation of State
Seconds, Fewer Is Better
A
B
D
0.398
0.398
0.400
0.09
0.18
0.27
0.36
0.45

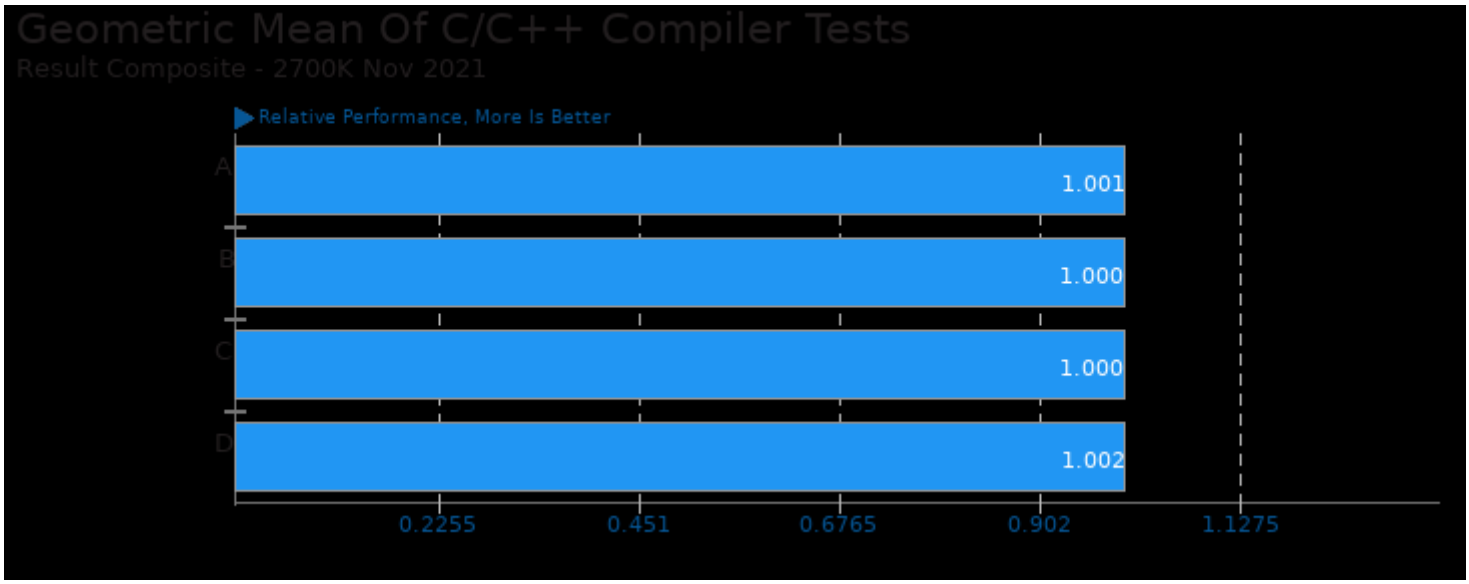
These geometric means are based upon test groupings / test suites for this result file.



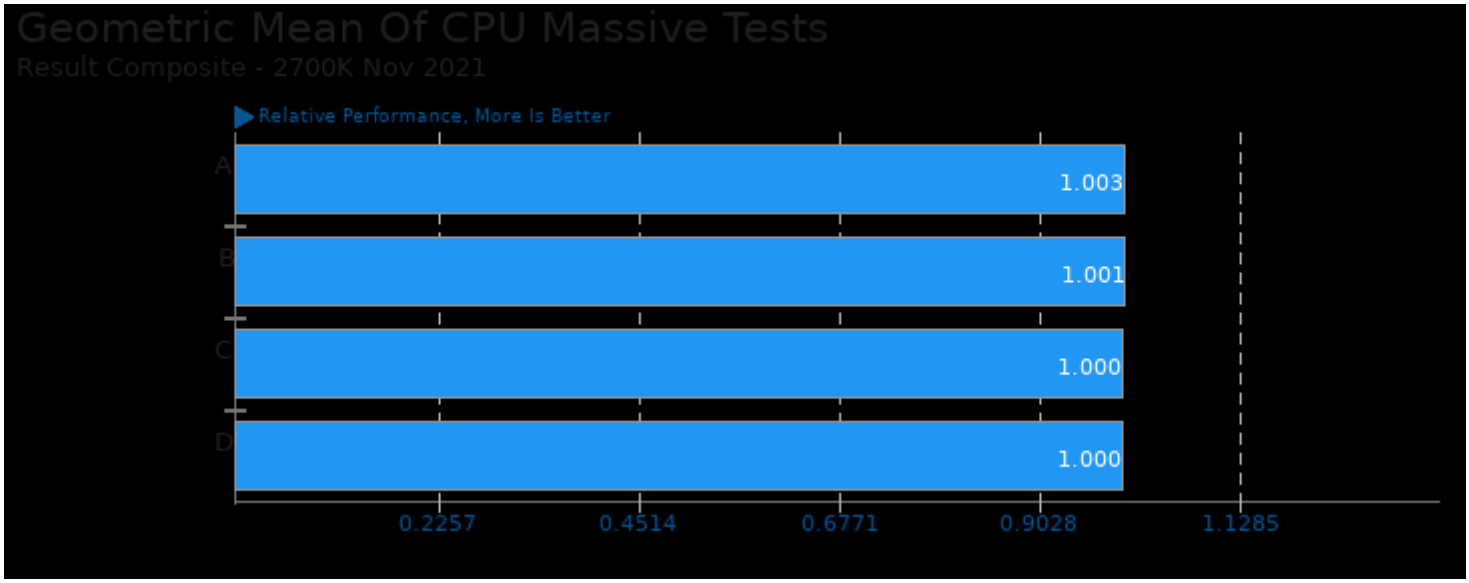
Geometric mean based upon tests: pts/dav1d, pts/aom-av1 and pts/rav1e



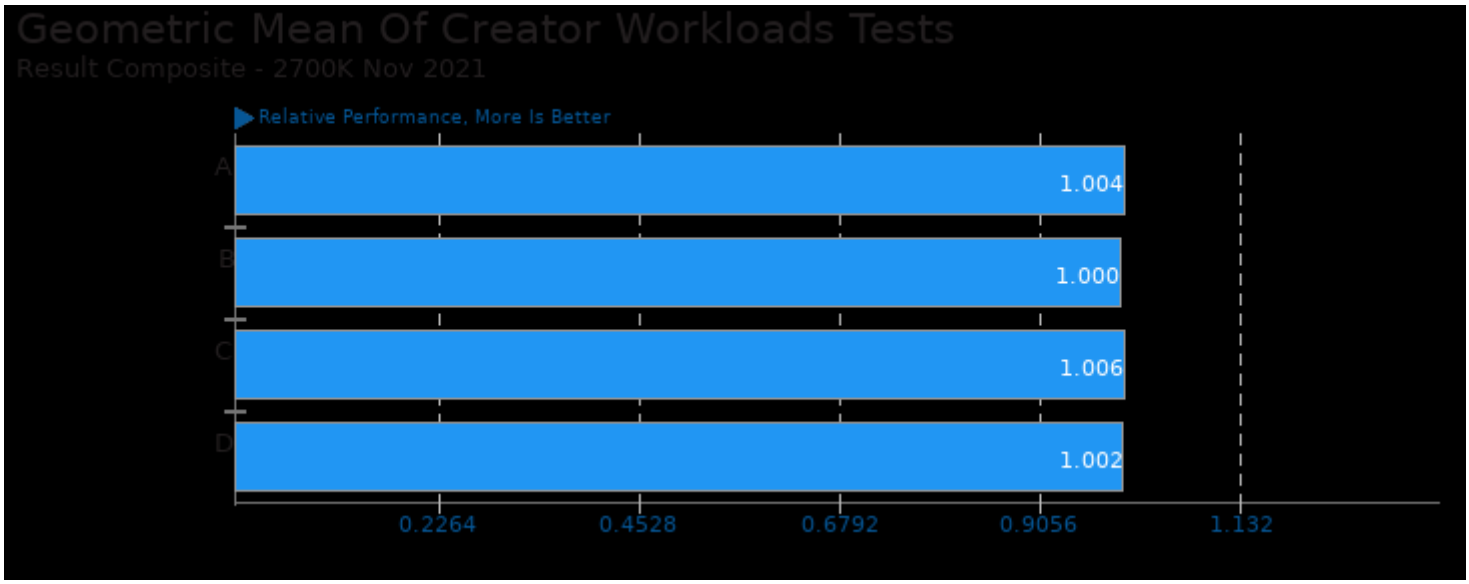
Geometric mean based upon tests: pts/build-linux-kernel and pts/build-llvm



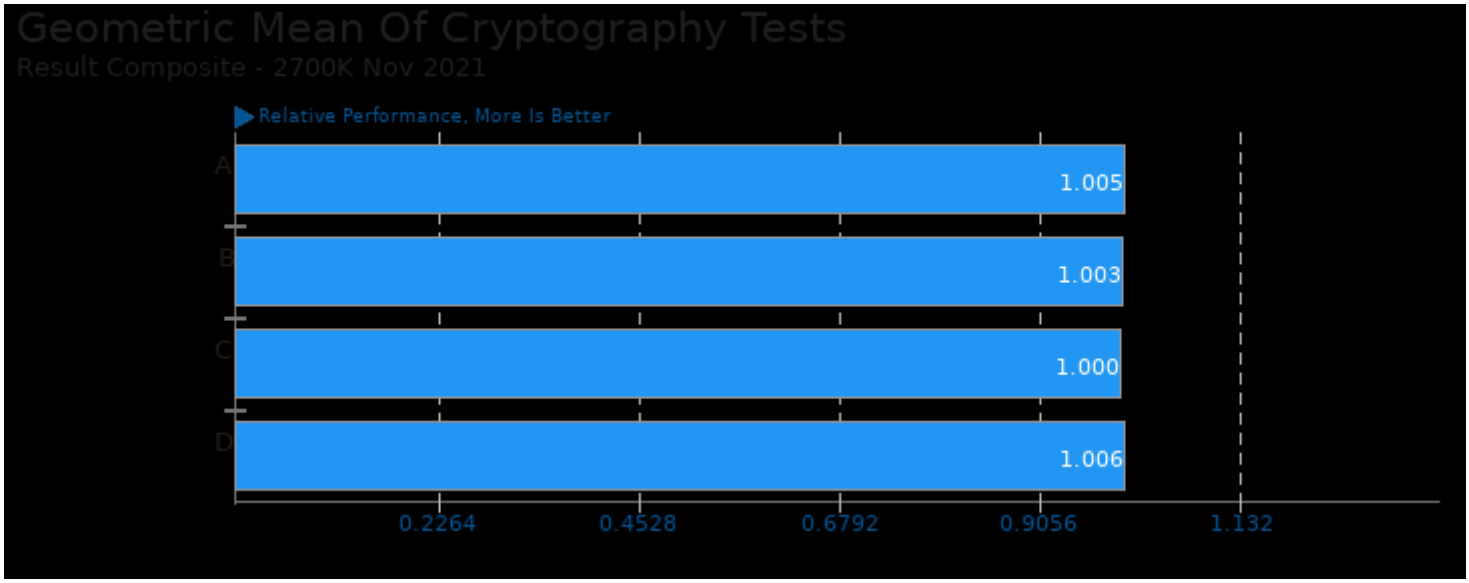
Geometric mean based upon tests: pts/build-llvm, pts/encode-flac, pts/apache, pts/dav1d, pts/kvazaar, pts/openssl, pts/nginx, pts/aom-av1 and pts/tachyon



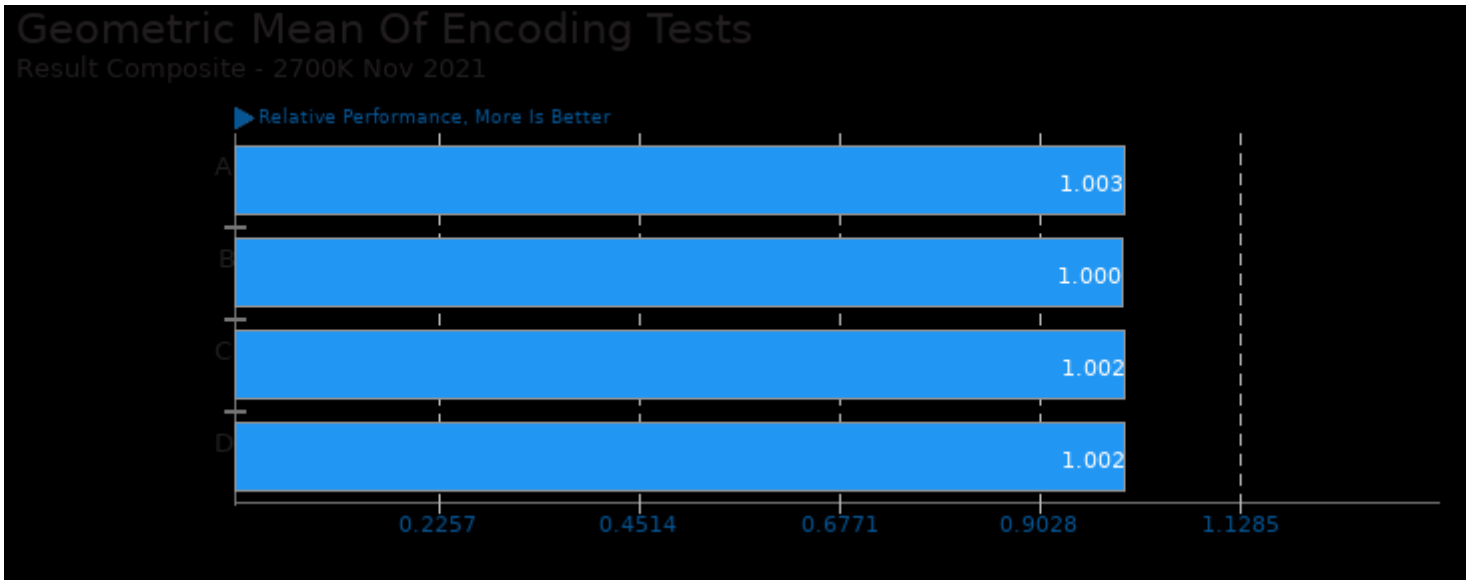
Geometric mean based upon tests: pts/apache, pts/build-llvm, pts/build-linux-kernel, pts/dav1d, pts/encode-flac, pts/openssl, pts/lczero, pts/nginx, pts/stress-ng, pts/tachyon, pts/cpuminer-opt and pts/renaissance



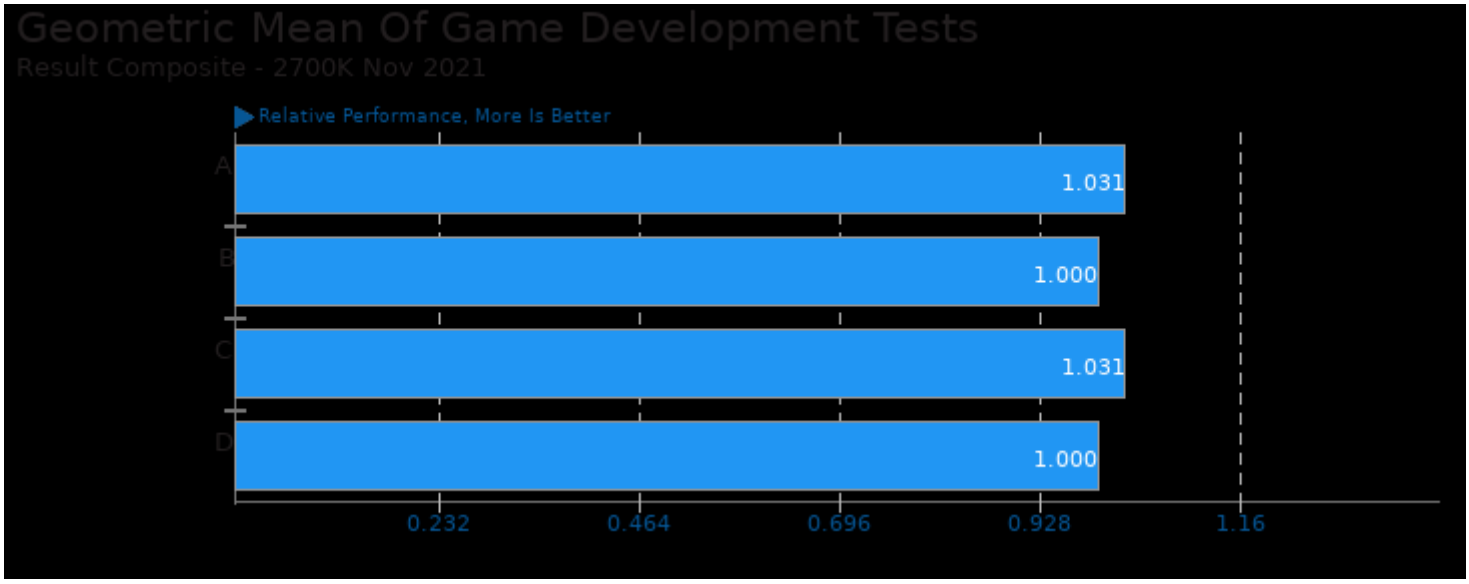
Geometric mean based upon tests: pts/tachyon, pts/yafaray, pts/natron, pts/kvazaar, pts/dav1d, pts/aom-av1, pts/rav1e, pts/encode-flac, pts/jpegxl, pts/jpegxl-decode, pts/openvkl, pts/astcenc and pts/synthmark



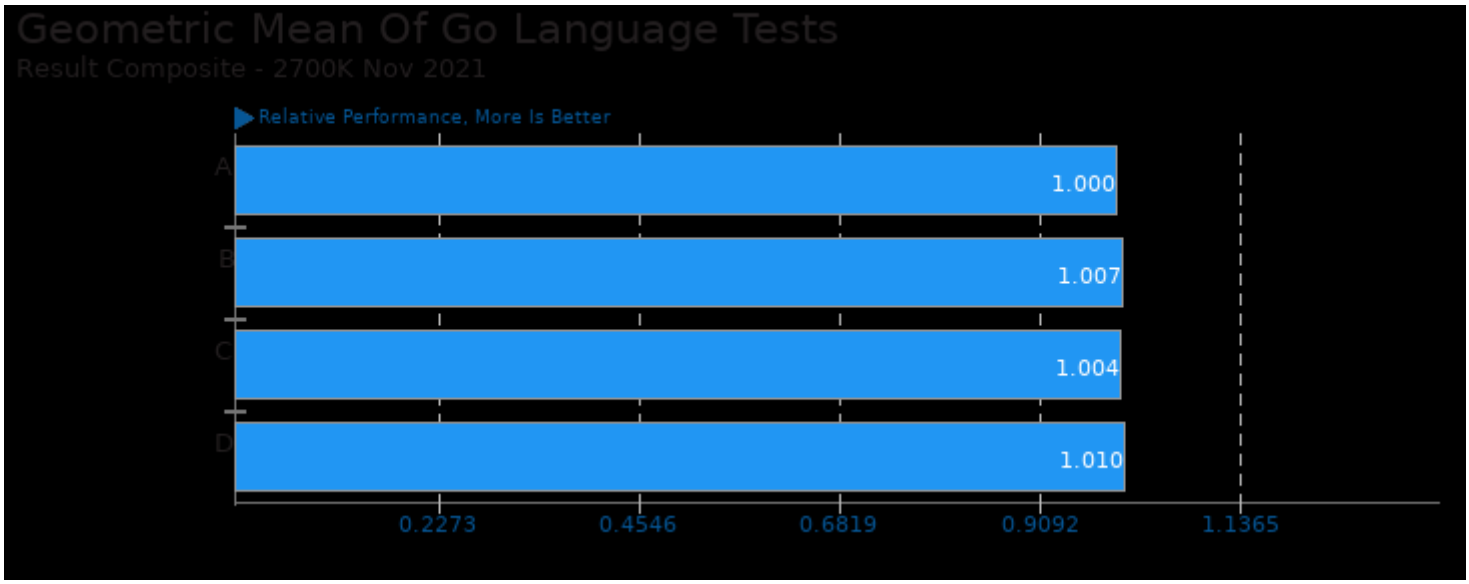
Geometric mean based upon tests: pts/openssl and pts/cpuminer-opt



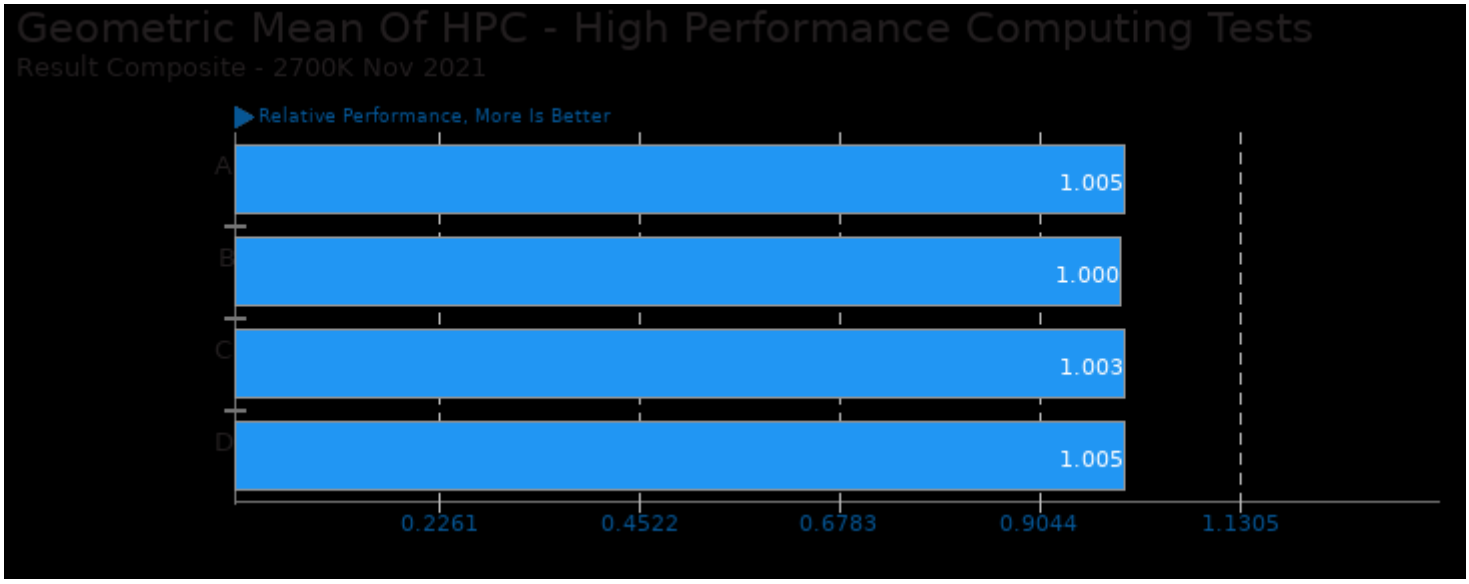
Geometric mean based upon tests: pts/encode-flac, pts/kvazaar, pts/dav1d, pts/aom-av1 and pts/rav1e



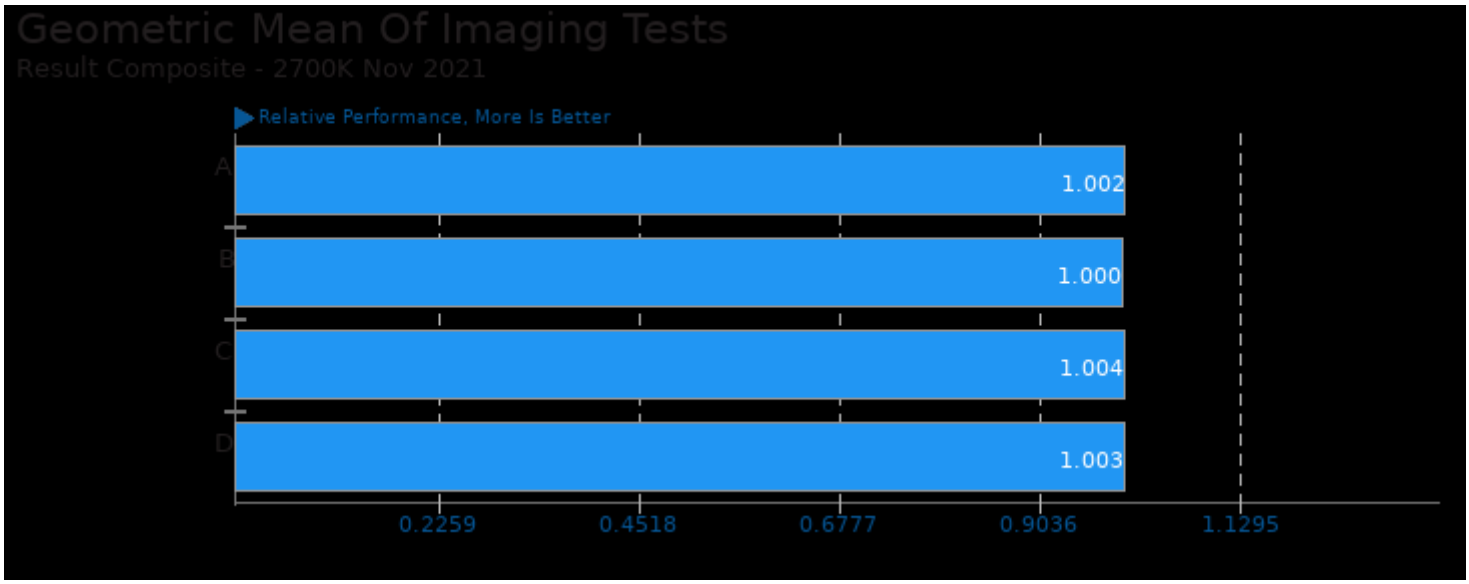
Geometric mean based upon tests: pts/astcenc and pts/openvkl



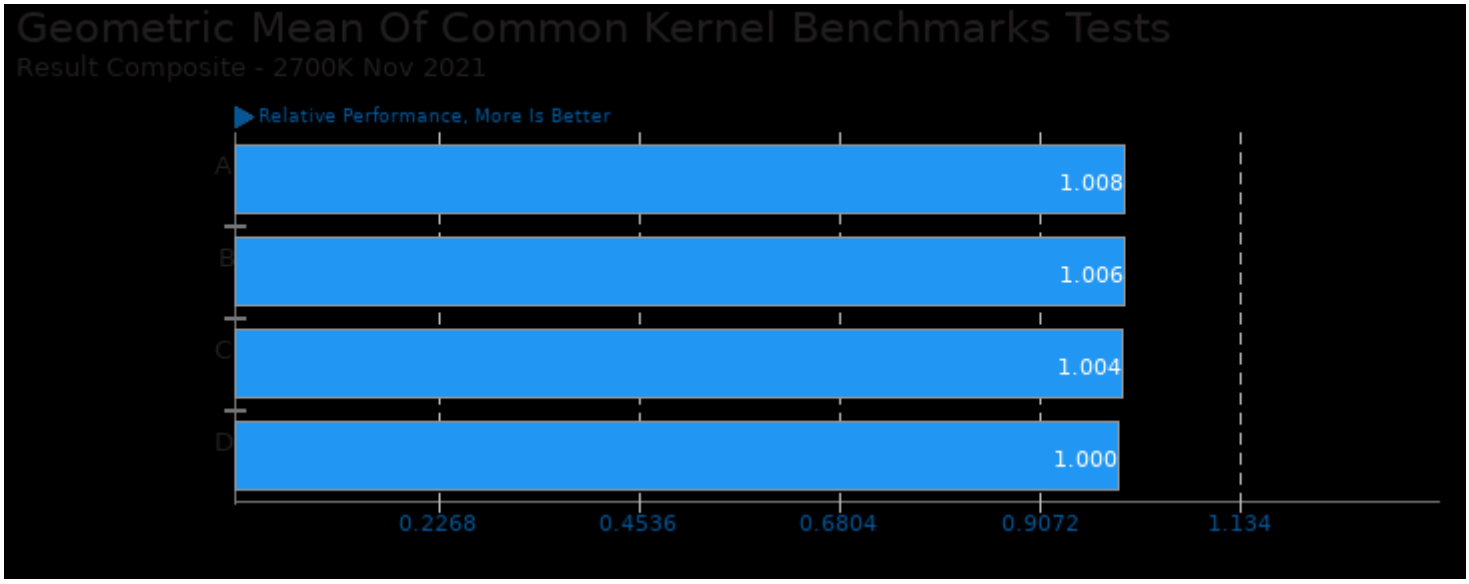
Geometric mean based upon tests: pts/nginx and pts/apache



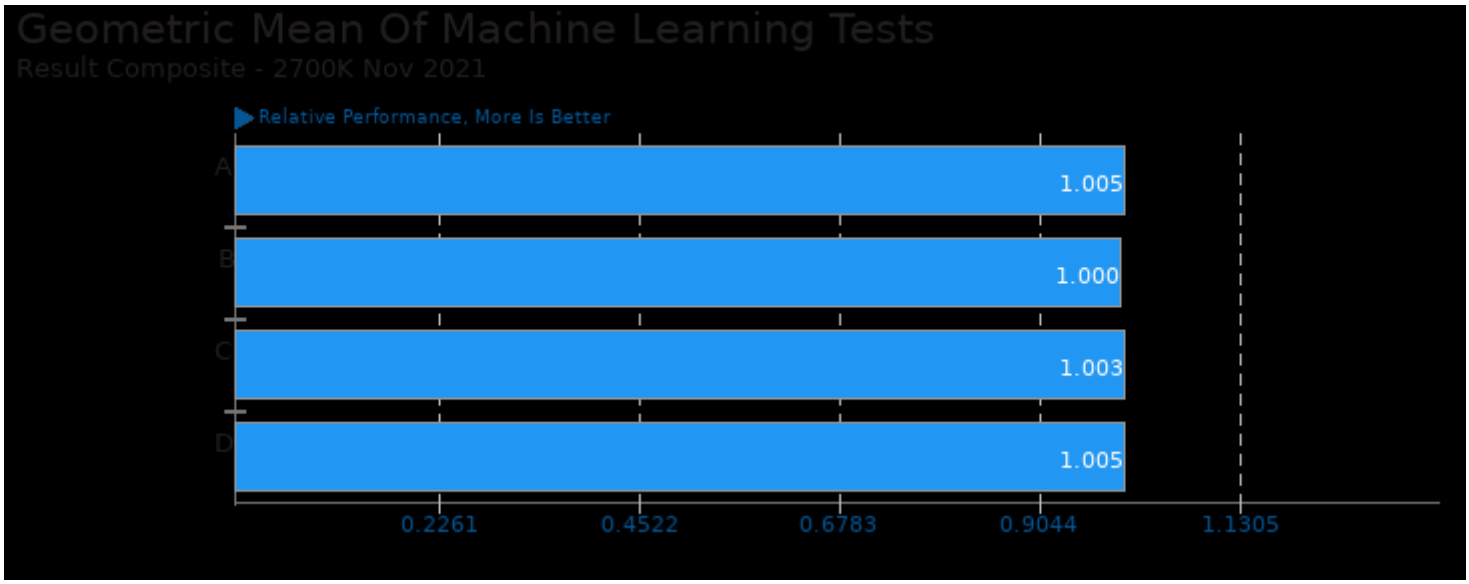
Geometric mean based upon tests: pts/ncnn, pts/opencv, pts/lczero and pts/pyhpc



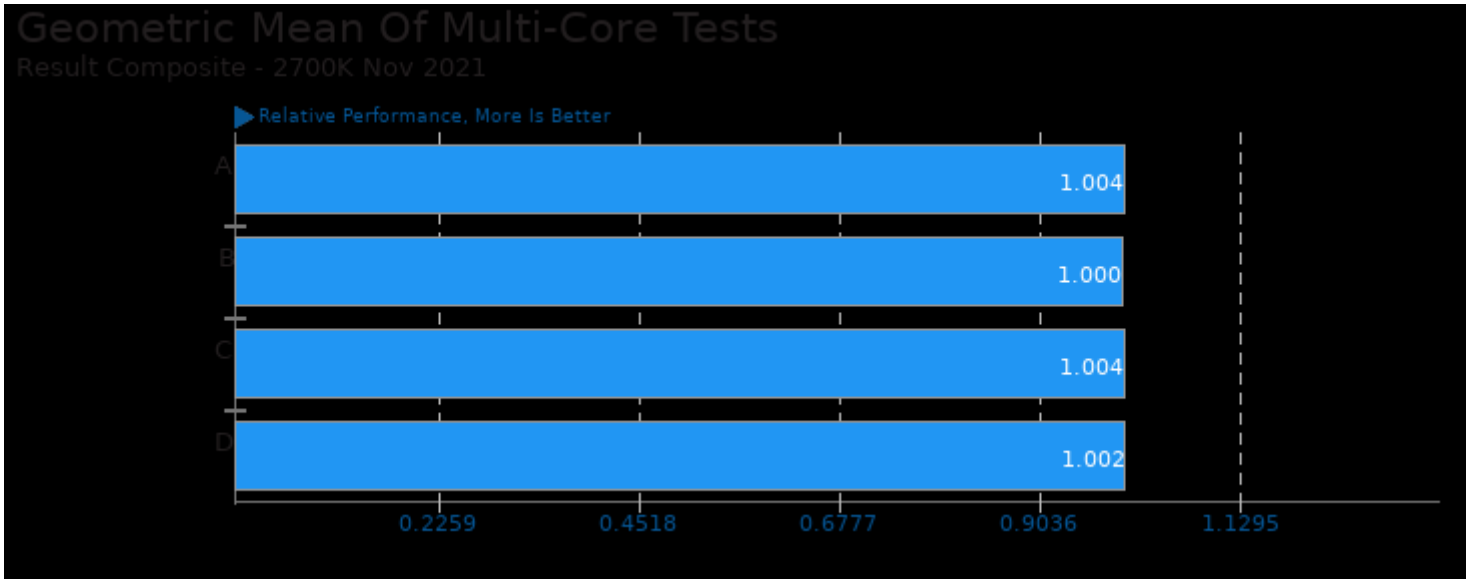
Geometric mean based upon tests: pts/jpegxl and pts/jpegxl-decode



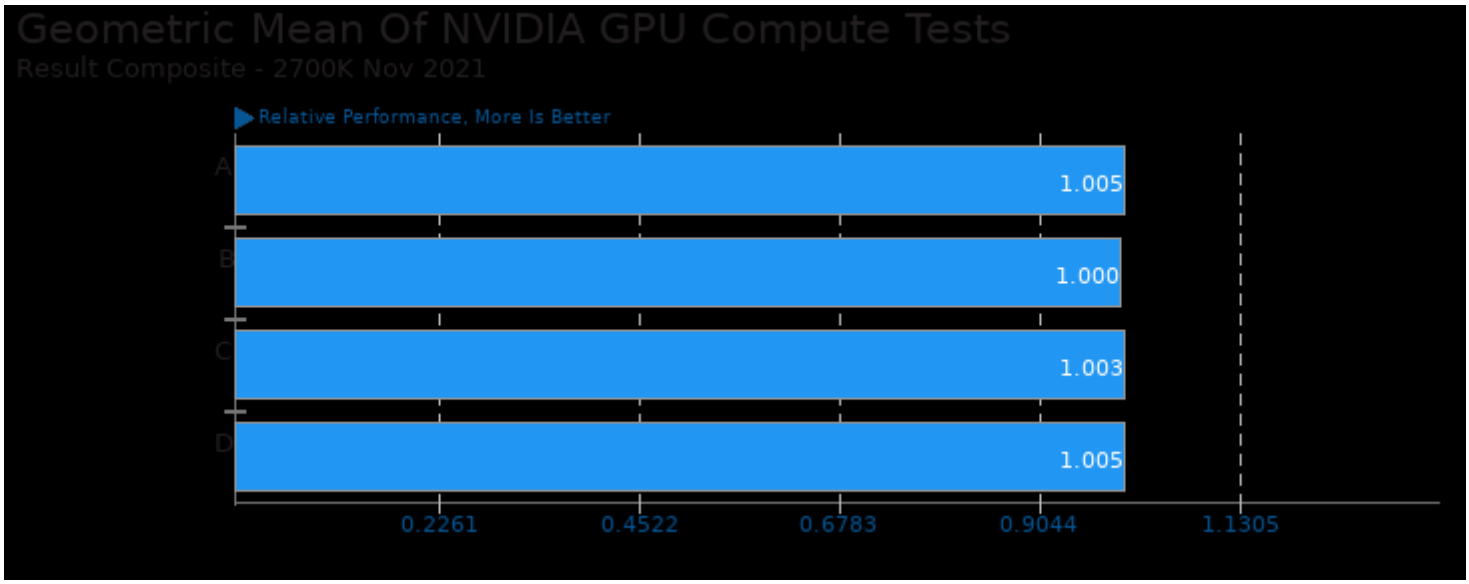
Geometric mean based upon tests: pts/apache, pts/openssl, pts/stress-ng and pts/rocksdb



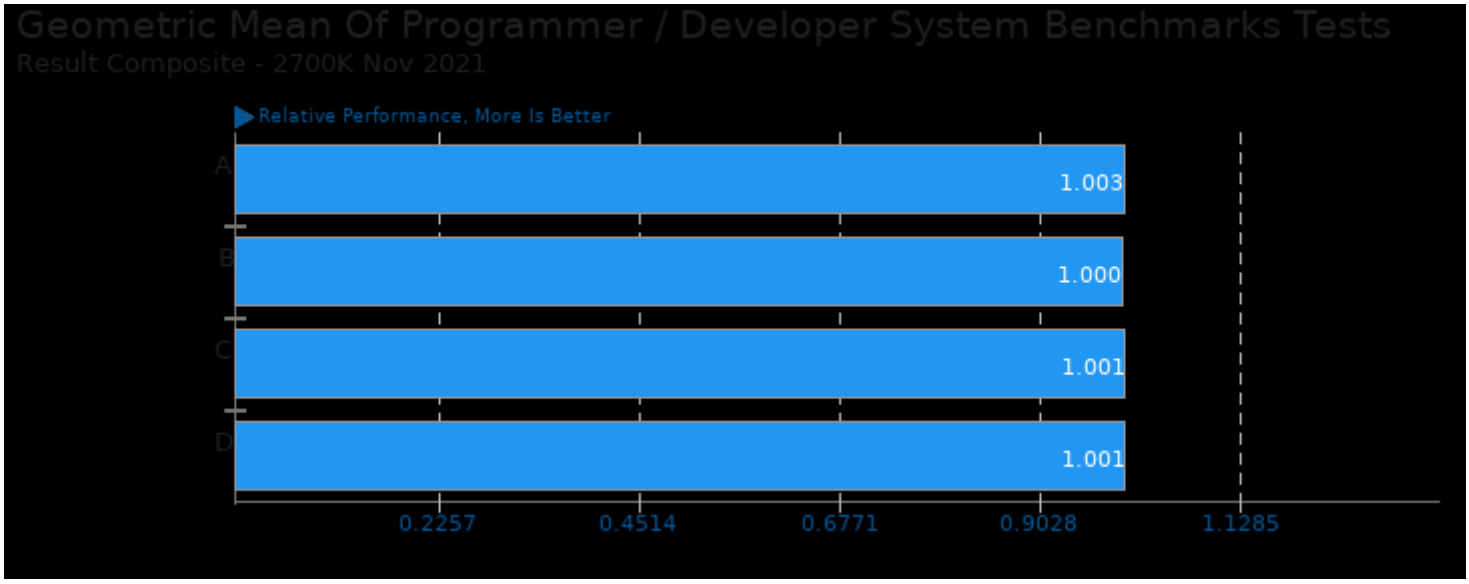
Geometric mean based upon tests: pts/ncnn, pts/opencv and pts/lczero



Geometric mean based upon tests: pts/cpuminer-opt, pts/tachyon, pts/yafaray, pts/kvazaar, pts/dav1d, pts/aom-av1, pts/rav1e, pts/build-linux-kernel, pts/build-llvm, pts/natron and pts/openvkl



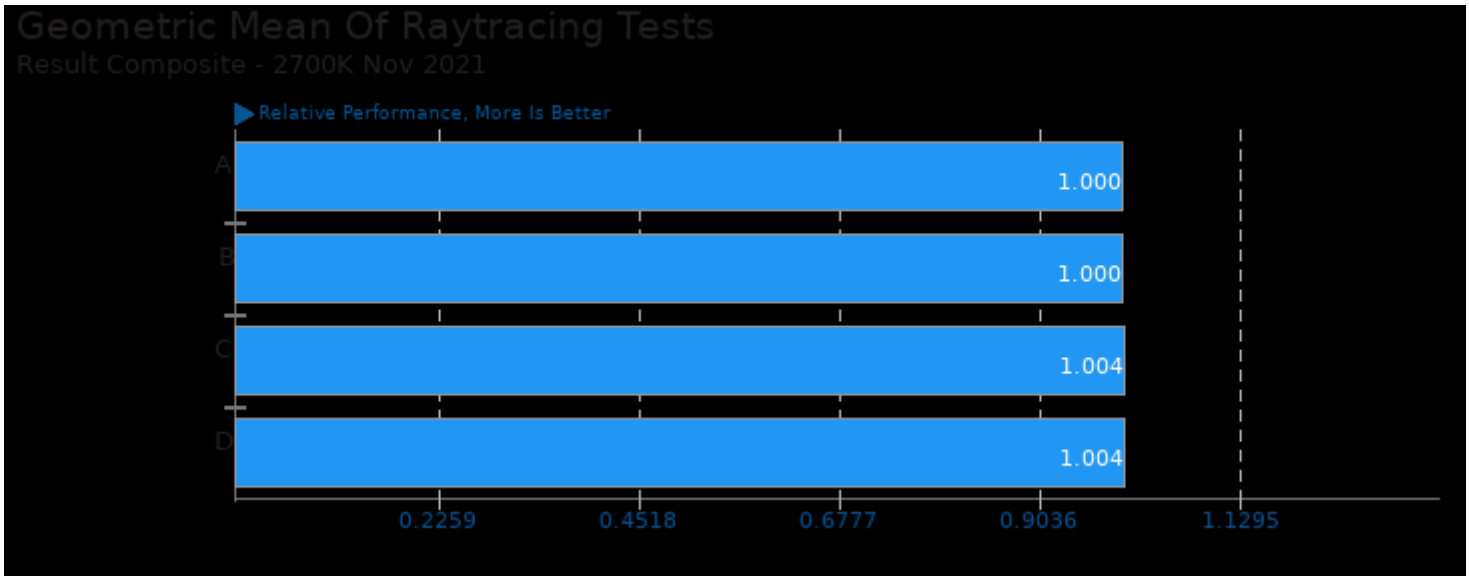
Geometric mean based upon tests: pts/lczero and pts/ncnn



Geometric mean based upon tests: pts/simdjson, pts/blosc, pts/build-linux-kernel and pts/build-llvm



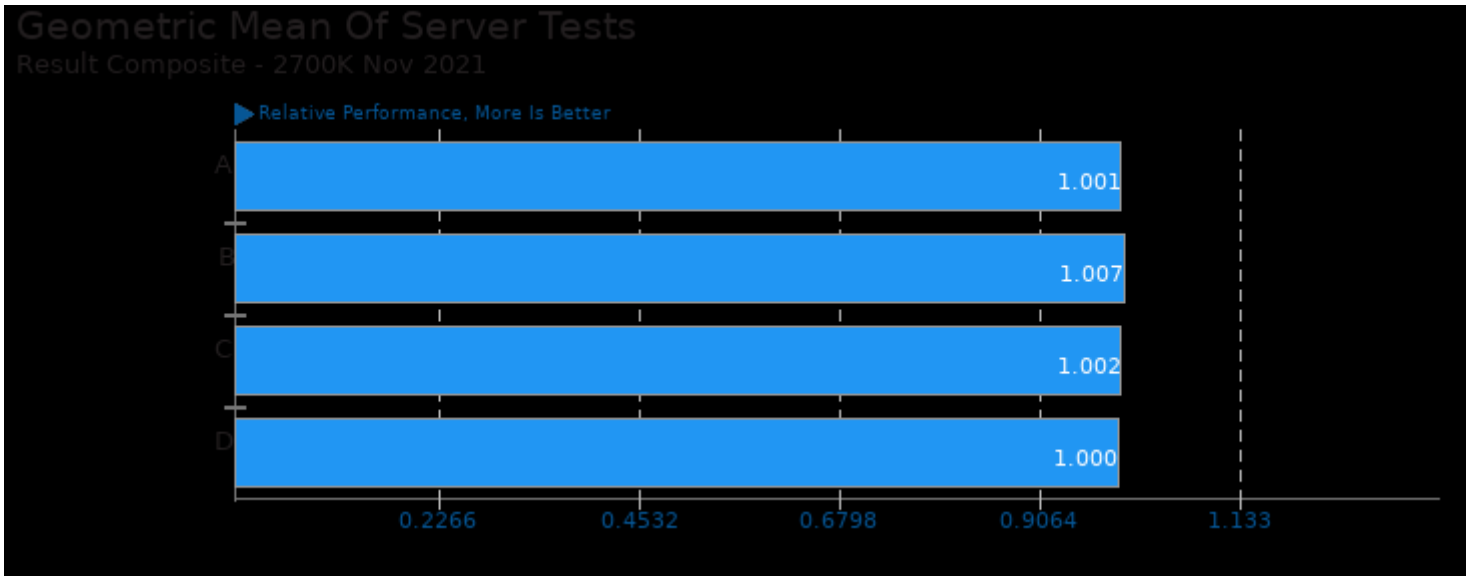
Geometric mean based upon tests: pts/build-llvm, pts/yafaray and pts/pyhpc



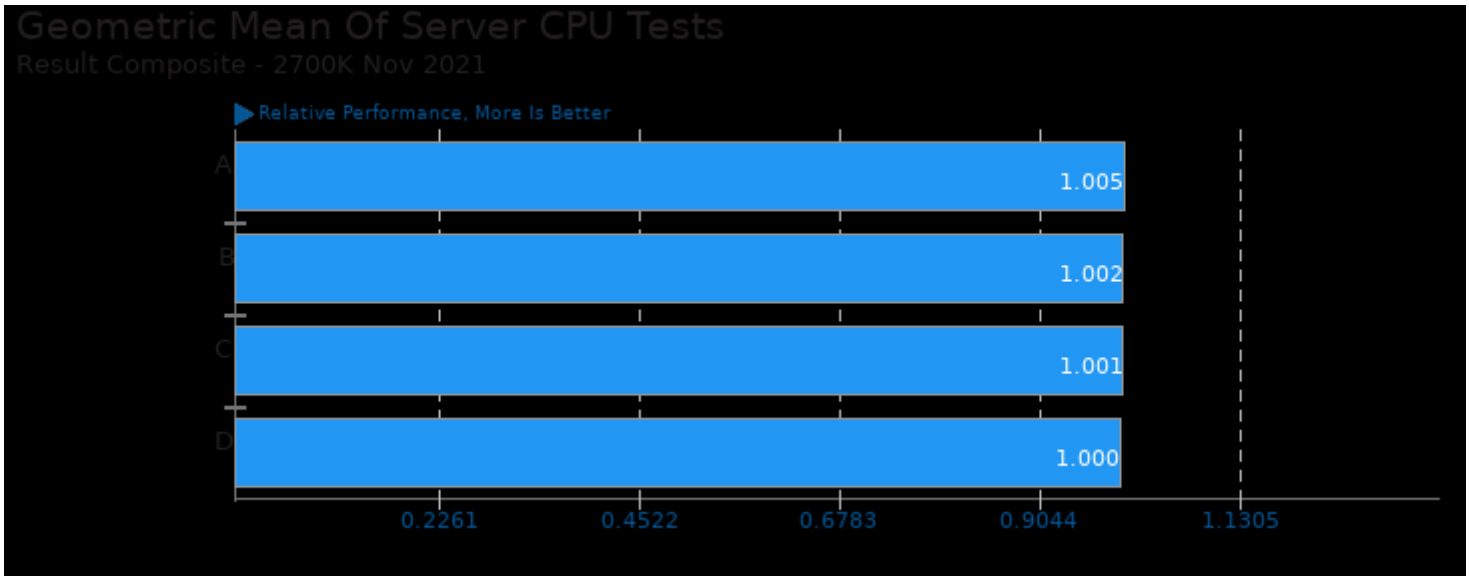
Geometric mean based upon tests: pts/tachyon and pts/yafaray



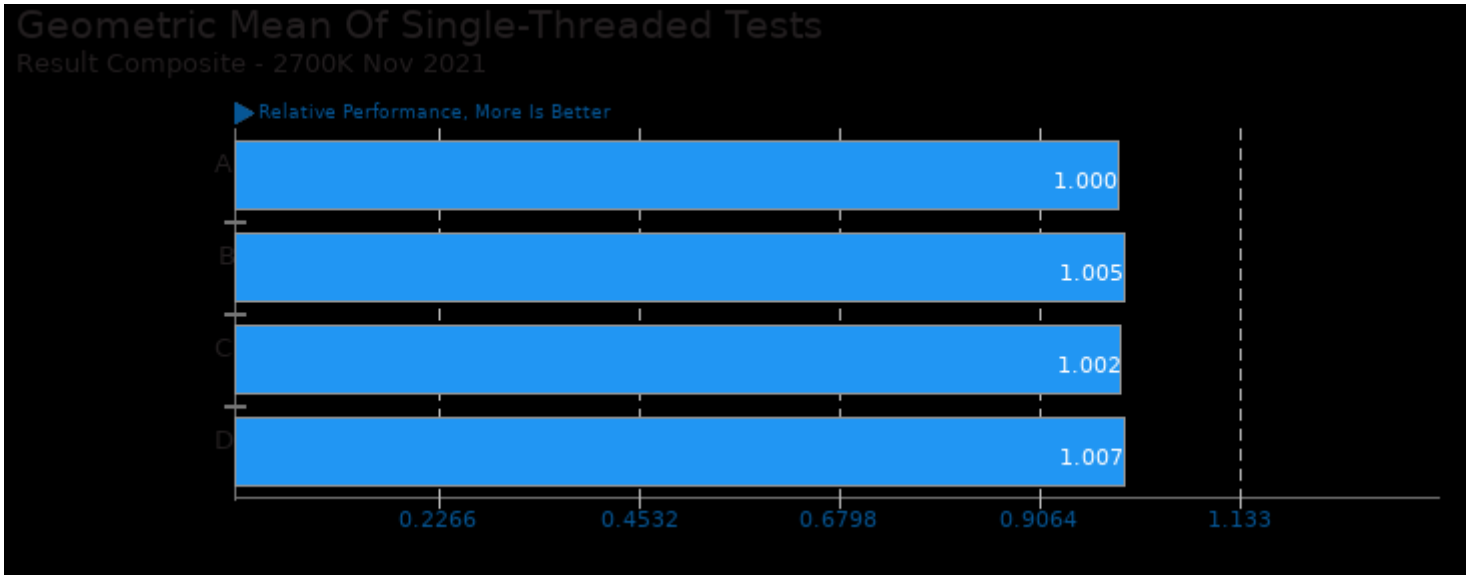
Geometric mean based upon tests: pts/tachyon, pts/yafaray and pts/natron



Geometric mean based upon tests: pts/apache, pts/nginx, pts/rocksdb, pts/openssl and pts/simdjson

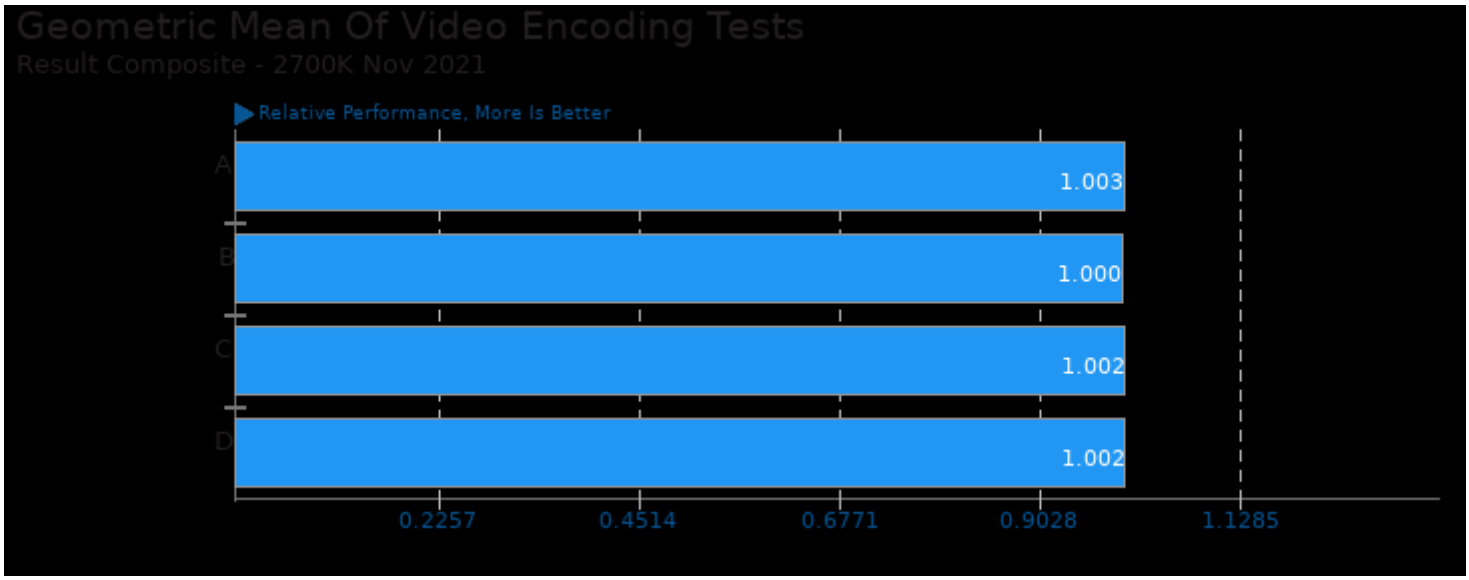


Geometric mean based upon tests: pts/renaissance, pts/dav1d, pts/build-linux-kernel, pts/build-llvm, pts/openssl, pts/stress-ng and pts/cpuminer-opt



Geometric mean based upon tests: pts/encode-flac and pts/nginx

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Geometric mean based upon tests: pts/kvazaar, pts/dav1d, pts/aom-av1 and pts/rav1e

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 02:11.