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Intel Core i7-8700K testing with a ASUS TUF Z370-PLUS GAMING (2001 BIOS) and ASUS Intel UHD 630 CFL GT2 3GB on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 38% of the tests.

Based on the geometric mean of all complete results, the fastest (4) was 1.709x the speed of the slowest (1). 2 was 0.589x the speed of 4, 3 was 1x the speed of 2, 1 was 0.993x the speed of 3.

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

Stress-NG (Test: Memory Copying) at 2.025x
Stress-NG (Test: MMAP) at 1.655x
NCNN (Target: Vulkan GPU-v2-v2 - Model: mobilenet-v2) at 1.327x
Renaissance (Test: Apache Spark Bayes) at 1.296x
NCNN (Target: Vulkan GPU - Model: blazeface) at 1.295x
Renaissance (Test: Apache Spark PageRank) at 1.194x
Renaissance (Test: Scala Dotty) at 1.15x
Apache Cassandra (Test: Reads) at 1.143x
Apache Cassandra (Test: Mixed 1:3) at 1.101x

Zstd Compression (Compression Level: 8, Long Mode - Compression Speed) at 1.087x.

Test Systems:

1

2

3

4

Processor: Intel Core i7-8700K @ 4.70GHz (6 Cores / 12 Threads), Motherboard: ASUS TUF Z370-PLUS GAMING (2001 BIOS), Chipset: Intel 8th Gen Core, Memory: 16GB, Disk: 128GB Toshiba THNSN5128GPU7, Graphics: ASUS Intel UHD 630 CFL GT2 3GB (1200MHz), Audio: Realtek ALC887-VD, Monitor: VA2431, Network: Intel I219-V

OS: Ubuntu 20.04, Kernel: 5.9.0-050900rc6daily20200923-generic (x86_64) 20200922, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.0.8, OpenCL: OpenCL 2.1, Compiler: GCC 9.3.0, 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-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xde - Thermald 1.9.1
Java Notes: OpenJDK Runtime Environment (build 11.0.11+9-Ubuntu-0ubuntu2.20.04)
Python Notes: Python 2.7.18 + Python 3.8.10
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: Mitigation of Microcode + tsx_async_abort: Mitigation of Clear buffers; SMT vulnerable

	1	2	3	4
yquake2 - Vulkan - 1920 x 1080 (FPS)	**65.1**	**65.4**	**65.4**	65.3
Normalized	99.54%	100%	100%	99.85%
yquake2 - OpenGL 1.x - 1920 x 1080 (FPS)	**165.8**	166.4	166.3	**167.7**
Normalized	98.87%	99.22%	99.17%	100%
yquake2 - OpenGL 3.x - 1920 x 1080 (FPS)	**227.8**	230.2	230.6	**230.9**
Normalized	98.66%	99.7%	99.87%	100%
yquake2 - Software CPU - 1920 x 1080 (FPS)	**121.5**	**120.4**	121.3	120.8
Normalized	100%	99.09%	99.84%	99.42%

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GLmark2 - 800 x 600 (Score)	3204	3206	**3198**	**3210**
Normalized	99.81%	99.88%	99.63%	100%
GLmark2 - 1024 x 768 (Score)	2095	**2114**	**2094**	2102
Normalized	99.1%	100%	99.05%	99.43%
GLmark2 - 1280 x 1024 (Score)	**1170**	**1179**	1173	**1179**
Normalized	99.24%	100%	99.49%	100%
GLmark2 - 1920 x 1080 (Score)	713	**710**	**718**	715
Normalized	99.3%	98.89%	100%	99.58%
C-Blosc - blosclz (MB/s)	**13281**	13324	13292	**13335**
Normalized	99.6%	99.92%	99.68%	100%
NAS Parallel Benchmarks - BT.C (Mop/s)	18433	**18533**	**18385**	18486
Normalized	99.46%	100%	99.2%	99.74%
NAS Parallel Benchmarks - CG.C (Mop/s)	4205	**4185**	**4280**	4203
Normalized	98.25%	97.79%	100%	98.21%
NAS Parallel Benchmarks - EP.C (Mop/s)	**900.51**	**945.49**	943.65	941.83
Normalized	95.24%	100%	99.81%	99.61%
NAS Parallel Benchmarks - EP.D (Mop/s)	**947.62**	946.23	944.43	**897.17**
Normalized	100%	99.85%	99.66%	94.68%
NAS Parallel Benchmarks - FT.C (Mop/s)	**10034**	10318	10284	**10350**
Normalized	96.95%	99.69%	99.36%	100%
NAS Parallel Benchmarks - LU.C (Mop/s)	**19134**	**19423**	19390	19394
Normalized	98.51%	100%	99.83%	99.85%
NAS Parallel Benchmarks - MG.C (Mop/s)	**9825**	9832	9844	**9846**
Normalized	99.78%	99.85%	99.98%	100%
NAS Parallel Benchmarks - SP.B (Mop/s)	**5904**	**5912**	5908	5905
Normalized	99.87%	100%	99.94%	99.88%
NAS Parallel Benchmarks - SP.C (Mop/s)	**5976**	5980	**5981**	5978
Normalized	99.92%	99.99%	100%	99.95%
LeelaChessZero - BLAS (Nodes/s)	**1076**	1080	1084	**1120**
Normalized	96.07%	96.43%	96.79%	100%
LeelaChessZero - Eigen (Nodes/s)	**1033**	**995**	1003	1016
Normalized	100%	96.32%	97.1%	98.35%
simdjson - Kostya (GB/s)	2.97	**2.96**	**2.99**	2.98
Normalized	99.33%	99%	100%	99.67%
simdjson - LargeRand (GB/s)	**1**	**1**	**1.01**	**1**
Normalized	99.01%	99.01%	100%	99.01%
simdjson - PartialTweets (GB/s)	**4.25**	**4.25**	**4.26**	**4.26**
Normalized	99.77%	99.77%	100%	100%
simdjson - DistinctUserID (GB/s)	4.94	**4.95**	**4.91**	4.94
Normalized	99.8%	100%	99.19%	99.8%
Renaissance - Scala Dotty (ms)	**837.8**	**963.8**	954.3	849.1
Normalized	100%	86.93%	87.79%	98.67%
Renaissance - Rand Forest (ms)	**681.9**	667.4	**659.3**	664.4

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Normalized	96.69%	98.79%	100%	99.23%
Renaissance - ALS Movie Lens (ms)	6931	6901	6891	6826
Normalized	98.49%	98.91%	99.06%	100%
Renaissance - Apache Spark ALS	2394	2352	2328	2359
Normalized	97.23%	98.98%	100%	98.65%
Renaissance - Apache Spark Bayes (ms)	1943	1832	1926	2374
Normalized	94.28%	100%	95.14%	77.18%
Renaissance - Savina Reactors.IO	10119	10112	10002	10157
Normalized	98.84%	98.91%	100%	98.47%
Renaissance - A.S.P (ms)	3714	3134	3112	3674
Normalized	83.78%	99.29%	100%	84.71%
Renaissance - F.H.R (ms)	2263	2293	2252	2268
Normalized	99.5%	98.23%	100%	99.3%
Renaissance - I.M.D.S (ms)	3082	3152	3143	3170
Normalized	100%	97.79%	98.06%	97.22%
Renaissance - A.U.C.T (ms)	11786	11706	11574	11683
Normalized	98.2%	98.87%	100%	99.06%
Renaissance - G.A.U.J.F (ms)	1379	1412	1394	1403
Normalized	100%	97.64%	98.91%	98.3%
Zstd Compression - 3 - Compression Speed (MB/s)	1957	1980	1948	1978
Normalized	98.8%	100%	98.36%	99.89%
Zstd Compression - 8 - Compression Speed (MB/s)	217	219.3	220.5	218.6
Normalized	98.41%	99.46%	100%	99.14%
Zstd Compression - 8 - D.S (MB/s)	3941	3961	3946	3948
Normalized	99.5%	100%	99.62%	99.68%
Zstd Compression - 19 - Compression Speed (MB/s)	27.2	27	27.1	26.9
Normalized	100%	99.26%	99.63%	98.9%
Zstd Compression - 19 - D.S (MB/s)	3432	3441	3428	3435
Normalized	99.74%	100%	99.62%	99.82%
Zstd Compression - 3, Long Mode - Compression Speed (MB/s)	1001	1018	1025	1019
Normalized	97.73%	99.35%	100%	99.42%
Zstd Compression - 3, Long Mode - D.S (MB/s)	4098	4102	4099	4091
Normalized	99.89%	100%	99.92%	99.72%
Zstd Compression - 8, Long Mode - Compression Speed (MB/s)	267.6	265.7	254.5	246.2
Normalized	100%	99.29%	95.1%	92%
Zstd Compression - 8, Long Mode - D.S (MB/s)	4225	4206	4225	4211
Normalized	99.99%	99.54%	100%	99.65%
Zstd Compression - 19, Long Mode - Compression Speed (MB/s)	22.2	22.2	22.2	22
Normalized	100%	100%	100%	99.1%
Zstd Compression - 19, Long Mode - D.S (MB/s)	3467	3486	3461	3459
Normalized	99.45%	100%	99.29%	99.22%
JPEG XL libjxl - PNG - 5 (MP/s)	31.96	31.87	31.96	31.82

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Normalized	100%	99.72%	100%	99.56%
JPEG XL libjxl - PNG - 7 (MP/s)	8.2	8.17	8.17	8.21
Normalized	99.88%	99.51%	99.51%	100%
JPEG XL libjxl - PNG - 8 (MP/s)	0.8	0.8	0.8	0.8
JPEG XL libjxl - JPEG - 5 (MP/s)	72.35	72.56	72.58	
Normalized	99.68%	99.97%	100%	
JPEG XL libjxl - JPEG - 7 (MP/s)	72.4	72.59	72.65	
Normalized	99.66%	99.92%	100%	
JPEG XL libjxl - JPEG - 8 (MP/s)	28.17	28.36	28.46	
Normalized	98.98%	99.65%	100%	
JPEG XL Decoding libjxl - 1 (MP/s)	55.14	55.81	55.57	
Normalized	98.8%	100%	99.57%	
JPEG XL Decoding libjxl - All (MP/s)	241.96	243.18	242.65	
Normalized	99.5%	100%	99.78%	
srsRAN - OFDM_Test (Samples / Second)	119200000	120300000	116700000	
Normalized	99.09%	100%	97.01%	
srsRAN - 4.P.1.P.M.6.Q (eNb Mb/s)	385.1	387.2	386.6	
Normalized	99.46%	100%	99.85%	
srsRAN - 4.P.1.P.M.6.Q (UE Mb/s)	128.4	128.5	127.6	
Normalized	99.92%	100%	99.3%	
srsRAN - 4.P.1.P.S.6.Q (eNb Mb/s)	390.4	389.7	389.4	
Normalized	100%	99.82%	99.74%	
srsRAN - 4.P.1.P.S.6.Q (UE Mb/s)	223.8	224.4	224.6	
Normalized	99.64%	99.91%	100%	
srsRAN - 4.P.1.P.M.2.Q (eNb Mb/s)	423.9	422.9	424	
Normalized	99.98%	99.74%	100%	
srsRAN - 4.P.1.P.M.2.Q (UE Mb/s)	140.4	140.5	139.1	
Normalized	99.93%	100%	99%	
srsRAN - 4.P.1.P.S.2.Q (eNb Mb/s)	426.5	426.1	422.4	
Normalized	100%	99.91%	99.04%	
srsRAN - 4.P.1.P.S.2.Q (UE Mb/s)	266.3	269.6	269.4	
Normalized	98.78%	100%	99.93%	
srsRAN - 5.P.T.5.P.S.6.Q (eNb Mb/s)	132	131.6	131.6	
Normalized	100%	99.7%	99.7%	
srsRAN - 5.P.T.5.P.S.6.Q (UE Mb/s)	60.4	60.1	60.1	
Normalized	100%	99.5%	99.5%	
srsRAN - 5.P.T.2.P.S.2.Q (eNb Mb/s)	148.6	147.7	148.4	
Normalized	100%	99.39%	99.87%	
srsRAN - 5.P.T.2.P.S.2.Q (UE Mb/s)	82	81.9	81.9	
Normalized	100%	99.88%	99.88%	
dav1d - Chimera 1080p (FPS)	547.92	546.2	543.56	
Normalized	100%	99.69%	99.2%	
dav1d - Summer Nature 4K (FPS)	142.64	142.89	142.72	
Normalized	99.83%	100%	99.88%	
dav1d - S.N.1 (FPS)	500.2	502.74	504.84	
Normalized	99.08%	99.58%	100%	
dav1d - C.1.1.b (FPS)	408.18	407.88	407.79	
Normalized	100%	99.93%	99.9%	
Embree - Pathtracer - Crown (FPS)	7.3522	7.6673	7.6921	
Normalized	95.58%	99.68%	100%	

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Embree - Pathtracer ISPC - Crown (FPS)	8.6217	**8.5676**	**8.6429**
Normalized	99.75%	99.13%	100%
Embree - Pathtracer - Asian Dragon (FPS)	8.8994	**8.8749**	**8.914**
Normalized	99.84%	99.56%	100%
Embree - Pathtracer - Asian Dragon Obj (FPS)	**8.3126**	**8.3322**	8.332
Normalized	99.76%	100%	100%
Embree - Pathtracer ISPC - Asian Dragon (FPS)	**10.3291**	**10.3665**	10.3568
Normalized	99.64%	100%	99.91%
Embree - Pathtracer ISPC - Asian Dragon Obj (FPS)	**9.3601**	9.2938	**9.2822**
Normalized	100%	99.29%	99.17%
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	**1.121**	1.122	**1.124**
Normalized	99.73%	99.82%	100%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	**11.882**	**11.829**	11.862
Normalized	100%	99.55%	99.83%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**3.119**	**3.151**	3.141
Normalized	98.98%	100%	99.68%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	38.149	**38.005**	**38.157**
Normalized	99.98%	99.6%	100%
VP9 libvpx Encoding - Speed 0 - Bosphorus 4K (FPS)	4.42	4.42	4.42
VP9 libvpx Encoding - Speed 5 - Bosphorus 4K (FPS)	10.57	**10.62**	**10.33**
Normalized	99.53%	100%	97.27%
VP9 libvpx Encoding - Speed 0 - Bosphorus 1080p (FPS)	**9.42**	9.61	**9.87**
Normalized	95.44%	97.37%	100%
VP9 libvpx Encoding - Speed 5 - Bosphorus 1080p (FPS)	**27.06**	**26.73**	26.88
Normalized	100%	98.78%	99.33%
Intel Open Image Denoise - RT.hdr_alb_nrm.3840x2160 (Images / Sec)	0.29	0.29	0.29
Intel Open Image Denoise - RT.ldr_alb_nrm.3840x2160 (Images / Sec)	0.29	0.29	0.29
Intel Open Image Denoise - RTLightmap.hdr.4096x4096 (Images / Sec)	0.14	0.14	0.14
OpenVKL - vklBenchmark ISPC (Items / Sec)	54	54	54
OpenVKL - v.S (Items / Sec)	**24**	**23**	**24**

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Normalized	100%	95.83%	100%
Timed FFmpeg Compilation - Time To Compile (sec)	80.916	81.388	81.217
Normalized	100%	99.42%	99.63%
Timed GCC Compilation - Time To Compile (sec)	1246	1255	1257
Normalized	100%	99.31%	99.18%
Timed GDB GNU Debugger Compilation - Time To Compile (sec)	89.744	89.928	89.51
Normalized	99.74%	99.54%	100%
Timed Linux Kernel Compilation - Time To Compile (sec)	131.962	131.799	131.896
Normalized	99.88%	100%	99.93%
YafaRay - T.T.F.S.S (sec)	208.641	208.008	207.628
Normalized	99.51%	99.82%	100%
Tachyon - Total Time (sec)	125.2927	125.5128	125.5626
Normalized	100%	99.82%	99.79%
Google SynthMark - VoiceMark_100 (Voices)	737.084	734.609	735.625
Normalized	100%	99.66%	99.8%
OpenSSL - SHA256 (byte/s)	2253793670	2253807270	2253767030
Normalized	100%	100%	100%
OpenSSL - RSA4096 (sign/s)	1982	1982	1981
Normalized	100%	99.96%	99.91%
OpenSSL - RSA4096 (verify/s)	130208	130221	130380
Normalized	99.87%	99.88%	100%
KeyDB (Ops/sec)	604573	602322	603561
Normalized	100%	99.63%	99.83%
GROMACS - MPI CPU - water_GMX50_bare (Ns/Day)	0.778	0.778	0.772
Normalized	100%	100%	99.23%
ASTC Encoder - Medium (sec)	5.2883	5.3328	5.3364
Normalized	100%	99.17%	99.1%
ASTC Encoder - Thorough (sec)	10.0999	10.1208	10.1154
Normalized	100%	99.79%	99.85%
ASTC Encoder - Exhaustive (sec)	93.7305	93.7767	93.6921
Normalized	99.96%	99.91%	100%
Stress-NG - MMAP (Bogo Ops/s)	82.1	64.28	49.6
Normalized	100%	78.29%	60.41%
Stress-NG - NUMA (Bogo Ops/s)	137.69	138.46	138.4
Normalized	99.44%	100%	99.96%
Stress-NG - MEMFD (Bogo Ops/s)	587.49	584.95	584.92
Normalized	100%	99.57%	99.56%
Stress-NG - Atomic (Bogo Ops/s)	198493	211340	211695
Normalized	93.76%	99.83%	100%
Stress-NG - Crypto (Bogo Ops/s)	1405	1404	1404
Normalized	100%	99.92%	99.91%
Stress-NG - Malloc (Bogo Ops/s)	44237989	44158669	44174106
Normalized	100%	99.82%	99.86%
Stress-NG - RdRand (Bogo Ops/s)	5757	5724	5746
Normalized	100%	99.42%	99.81%
Stress-NG - Forking (Bogo Ops/s)	40882	41030	41476
Normalized	98.57%	98.92%	100%

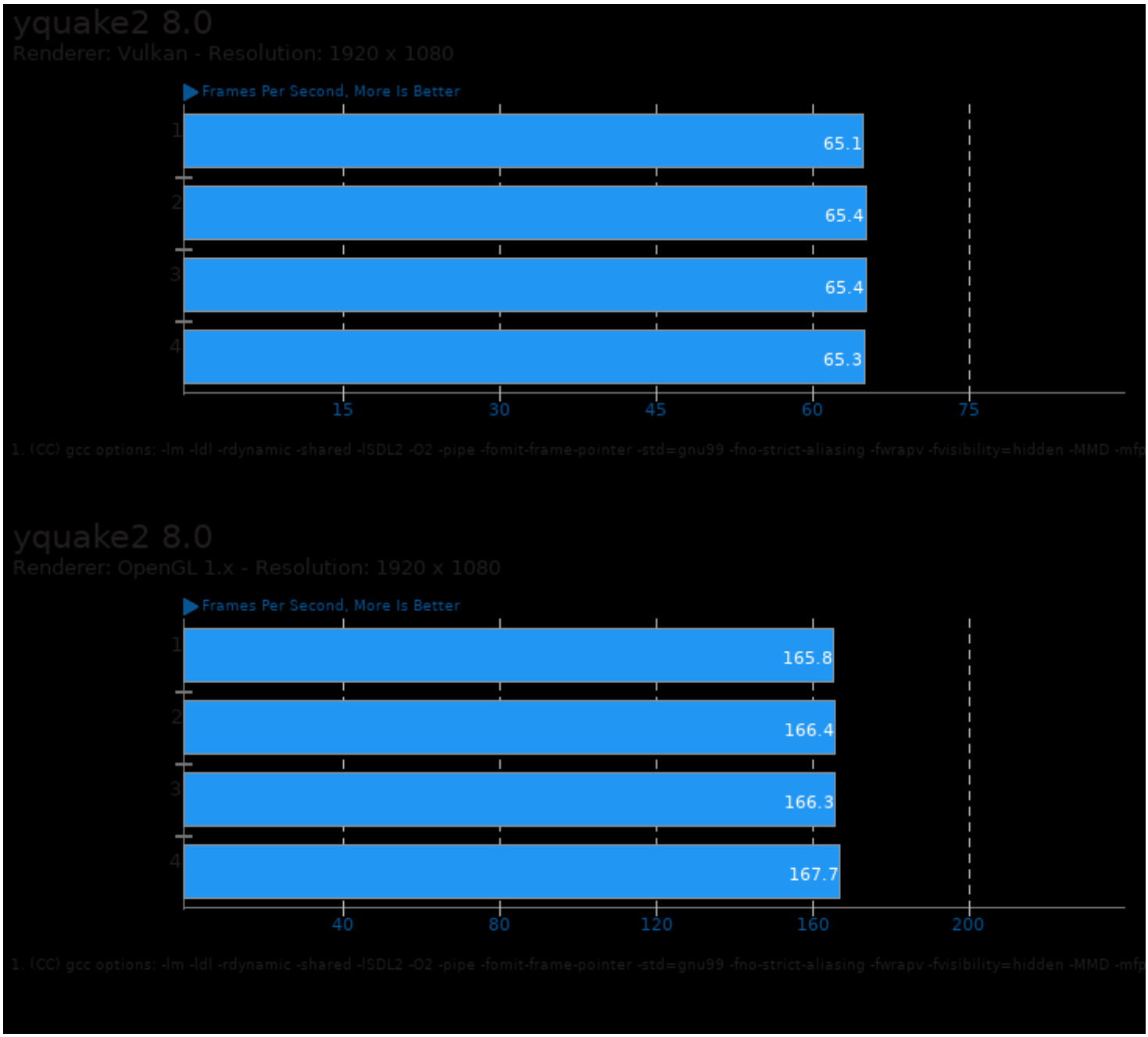
Stress-NG - SENDFILE (Bogo Ops/s)	**89586**	**89742**	89690
Normalized	99.83%	100%	99.94%
Stress-NG - CPU Cache (Bogo Ops/s)	183.16	**183.06**	**190.9**
Normalized	95.95%	95.89%	100%
Stress-NG - CPU Stress (Bogo Ops/s)	**12710**	12739	**12754**
Normalized	99.66%	99.89%	100%
Stress-NG - Semaphores (Bogo	**836842**	**846677**	836974
Normalized	98.84%	100%	98.85%
Stress-NG - Matrix Math (Bogo Ops/s)	**31888**	31065	**31000**
Normalized	100%	97.42%	97.22%
Stress-NG - Vector Math (Bogo Ops/s)	22944	**22983**	**22933**
Normalized	99.83%	100%	99.78%
Stress-NG - Memory Copying (Bogo Ops/s)	**2861**	2804	**1413**
Normalized	100%	97.98%	49.38%
Stress-NG - Socket Activity (Bogo	**6245**	**6168**	6191
Normalized	100%	98.77%	99.14%
Stress-NG - Context Switching (Bogo Ops/s)	2404624	**2347276**	**2413519**
Normalized	99.63%	97.26%	100%
Stress-NG - G.C.S.F (Bogo Ops/s)	854400	**854447**	**847660**
Normalized	99.99%	100%	99.21%
Stress-NG - G.Q.D.S (Bogo Ops/s)	**106.6**	**105.23**	106.37
Normalized	100%	98.71%	99.78%
Stress-NG - S.V.M.P (Bogo Ops/s)	5045344	**5031153**	**5072092**
Normalized	99.47%	99.19%	100%
Mobile Neural Network - mobilenetV3 (ms)	**1.923**	**1.938**	1.93
Normalized	100%	99.23%	99.64%
Mobile Neural Network - squeezenetv1.1 (ms)	**3.664**	3.679	**3.725**
Normalized	100%	99.59%	98.36%
Mobile Neural Network - resnet-v2-50 (ms)	36.473	**36.383**	**36.528**
Normalized	99.75%	100%	99.6%
Mobile Neural Network - SqueezeNetV1.0 (ms)	5.11	**5.114**	**5.093**
Normalized	99.67%	99.59%	100%
Mobile Neural Network - MobileNetV2_224 (ms)	**3.164**	3.142	**3.135**
Normalized	99.08%	99.78%	100%
Mobile Neural Network - mobilenet-v1-1.0 (ms)	**4.223**	**4.237**	4.236
Normalized	100%	99.67%	99.69%
Mobile Neural Network - inception-v3 (ms)	**37.154**	37.267	**37.526**
Normalized	100%	99.7%	99.01%
NCNN - CPU - mobilenet (ms)	17.58	**17.55**	**17.59**
Normalized	99.83%	100%	99.77%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	**5**	**4.99**	**5**
Normalized	99.8%	100%	99.8%
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	**4.05**	**4.13**	4.06

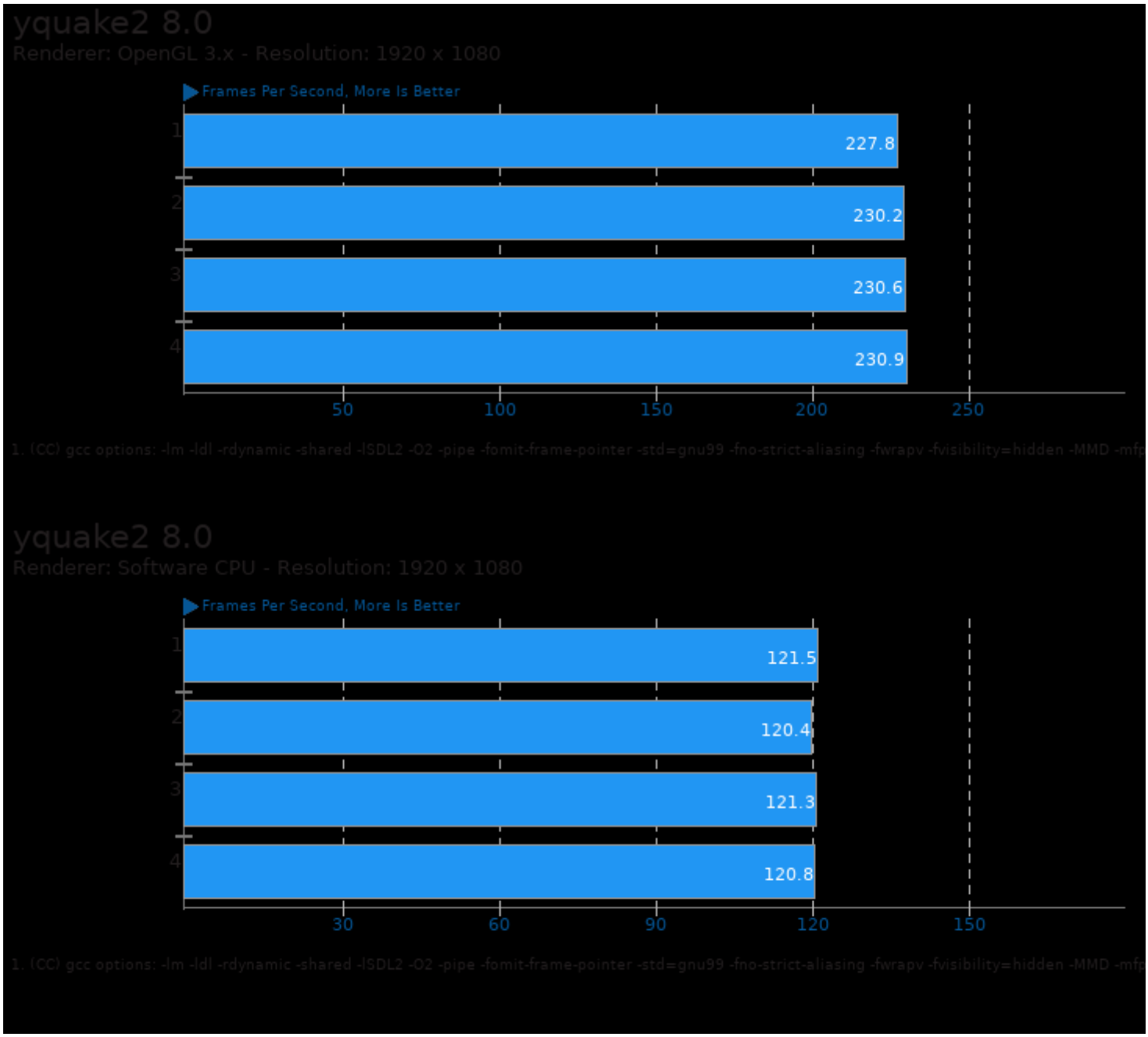
Normalized	100%	98.06%	99.75%
NCNN - CPU - shufflenet-v2 (ms)	3.66	3.74	3.71
Normalized	100%	97.86%	98.65%
NCNN - CPU - mnasnet (ms)	3.91	3.94	3.91
Normalized	100%	99.24%	100%
NCNN - CPU - efficientnet-b0 (ms)	6.64	6.64	6.64
NCNN - CPU - blazeface (ms)	1.52	1.54	1.5
Normalized	98.68%	97.4%	100%
NCNN - CPU - googlenet (ms)	15	15.05	15.04
Normalized	100%	99.67%	99.73%
NCNN - CPU - vgg16 (ms)	64.69	64.71	64.8
Normalized	100%	99.97%	99.83%
NCNN - CPU - resnet18 (ms)	16.08	16.11	16.12
Normalized	100%	99.81%	99.75%
NCNN - CPU - alexnet (ms)	13.82	13.77	13.78
Normalized	99.64%	100%	99.93%
NCNN - CPU - resnet50 (ms)	28.16	28.16	28.28
Normalized	100%	100%	99.58%
NCNN - CPU - yolov4-tiny (ms)	26.87	26.84	26.89
Normalized	99.89%	100%	99.81%
NCNN - CPU - squeezenet_ssd (ms)	20.36	20.37	20.36
Normalized	100%	99.95%	100%
NCNN - CPU - regnety_400m (ms)	9.62	9.69	9.64
Normalized	100%	99.28%	99.79%
NCNN - Vulkan GPU - mobilenet (ms)	34.63	34.7	36.36
Normalized	100%	99.8%	95.24%
NCNN - Vulkan GPU-v2-v2 - mobilenet-v2 (ms)	16.35	15.96	15.81
Normalized	75.35%	77.19%	77.93%
NCNN - Vulkan GPU-v3-v3 - mobilenet-v3 (ms)	16.95	16.79	17.15
Normalized	99.06%	100%	97.9%
NCNN - Vulkan GPU - shufflenet-v2	16.97	16.72	16.72
Normalized	98.53%	100%	100%
NCNN - Vulkan GPU - mnasnet (ms)	16.68	15.85	16.44
Normalized	95.02%	100%	96.41%
NCNN - Vulkan GPU - efficientnet-b0 (ms)	24.63	24.6	24.58
Normalized	99.8%	99.92%	100%
NCNN - Vulkan GPU - blazeface (ms)	3.34	2.7	2.58
Normalized	77.25%	95.56%	100%
NCNN - Vulkan GPU - googlenet (ms)	33.24	33.17	33.16
Normalized	99.76%	99.97%	100%
NCNN - Vulkan GPU - vgg16 (ms)	187.81	187.06	189.1
Normalized	99.6%	100%	98.92%
NCNN - Vulkan GPU - resnet18 (ms)	29.33	29.31	29.28
Normalized	99.83%	99.9%	100%
NCNN - Vulkan GPU - alexnet (ms)	44.82	46.01	45.71
Normalized	100%	97.41%	98.05%
NCNN - Vulkan GPU - resnet50 (ms)	69.61	69.67	69.62
Normalized	99.99%	99.9%	99.97%
NCNN - Vulkan GPU - yolov4-tiny (ms)	74.98	75.37	74.84
Normalized	99.51%	98.99%	99.69%

NCNN - Vulkan GPU - squeezenet_ssd (ms)	40.34	40.35	40.42
Normalized	100%	99.98%	99.8%
NCNN - Vulkan GPU - regnety_400m (ms)	17.24	17.4	17.2
Normalized	99.59%	98.68%	99.83%
TNN - CPU - DenseNet (ms)	3470	3489	3467
Normalized	99.91%	99.38%	100%
TNN - CPU - MobileNet v2 (ms)	330.699	329.114	330.725
Normalized	99.52%	100%	99.51%
TNN - CPU - SqueezeNet v2 (ms)	68.236	68.193	68.134
Normalized	99.85%	99.91%	100%
TNN - CPU - SqueezeNet v1.1 (ms)	288.053	287.92	288.326
Normalized	99.95%	100%	99.86%
Apache Cassandra - Reads (Op/s)	59507	56706	52074
Normalized	100%	95.29%	87.51%
Apache Cassandra - Writes (Op/s)	67763	66242	67639
Normalized	100%	97.76%	99.82%
Apache Cassandra - Mixed 1:1 (Op/s)	52402	53528	55154
Normalized	95.01%	97.05%	100%
Apache Cassandra - Mixed 1:3 (Op/s)	50971	51719	56102
Normalized	90.85%	92.19%	100%
Facebook RocksDB - Rand Fill (Op/s)	588391	553494	556988
Normalized	100%	94.07%	94.66%
Facebook RocksDB - Rand Read	34111986	34523483	34795505
Normalized	98.04%	99.22%	100%
Facebook RocksDB - Update Rand (Op/s)	356642	355812	352203
Normalized	100%	99.77%	98.76%
Facebook RocksDB - Seq Fill (Op/s)	895892	888058	958352
Normalized	93.48%	92.67%	100%
Facebook RocksDB - Rand Fill Sync (Op/s)	1036	1029	997
Normalized	100%	99.32%	96.24%
Facebook RocksDB - Read While Writing (Op/s)	1256835	1278309	1329713
Normalized	94.52%	96.13%	100%
Facebook RocksDB - R.R.W.R (Op/s)	1212611	1220547	1240848
Normalized	97.72%	98.36%	100%
ECP-CANDLE - P1B2 (sec)	39.137	37.199	37.668
Normalized	95.05%	100%	98.75%
ECP-CANDLE - P3B1 (sec)	886.95	887.696	887.231
Normalized	100%	99.92%	99.97%
ECP-CANDLE - P3B2 (sec)	482.081	482.333	483.596
Normalized	100%	99.95%	99.69%
nginx - 1 (Reqs/sec)	25589	27640	26183
Normalized	92.58%	100%	94.73%
nginx - 20 (Reqs/sec)	351418	351021	350960
Normalized	100%	99.89%	99.87%
nginx - 100 (Reqs/sec)	343249	342834	343172
Normalized	100%	99.88%	99.98%
nginx - 200 (Reqs/sec)	344511	344930	344691
Normalized	99.88%	100%	99.93%

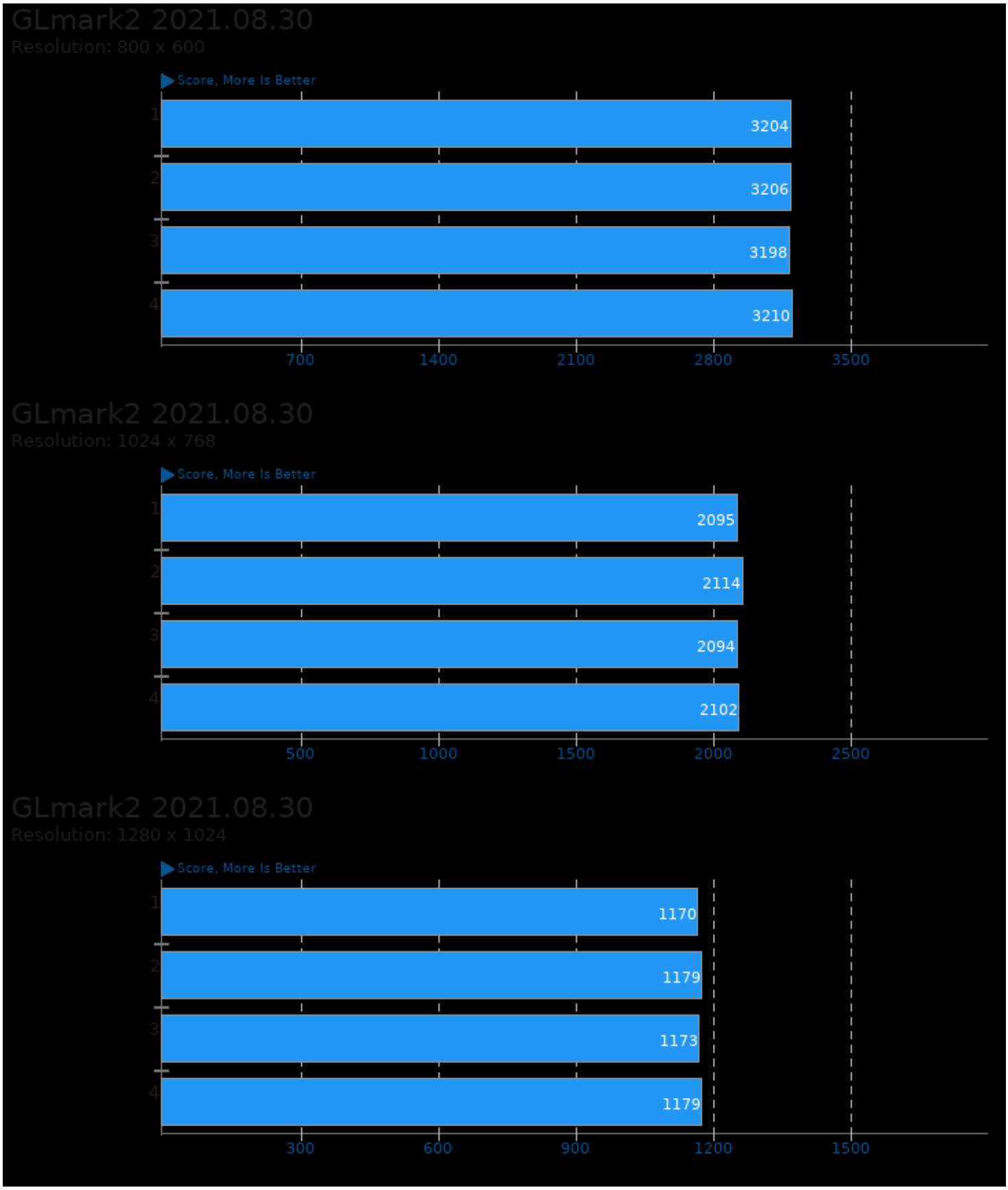
8700k september

nginx - 500 (Reqs/sec)	338834	**339410**	**337780**
Normalized	99.83%	100%	99.52%
nginx - 1000 (Reqs/sec)	**324545**	**323378**	323870
Normalized	100%	99.64%	99.79%
Natron - Spaceship (FPS)	**1.8**	**1.9**	**1.8**
Normalized	94.74%	100%	94.74%
BRL-CAD - V.P.M (VGR Performance Metric)	**85965**	**86546**	
Normalized	99.33%	100%	

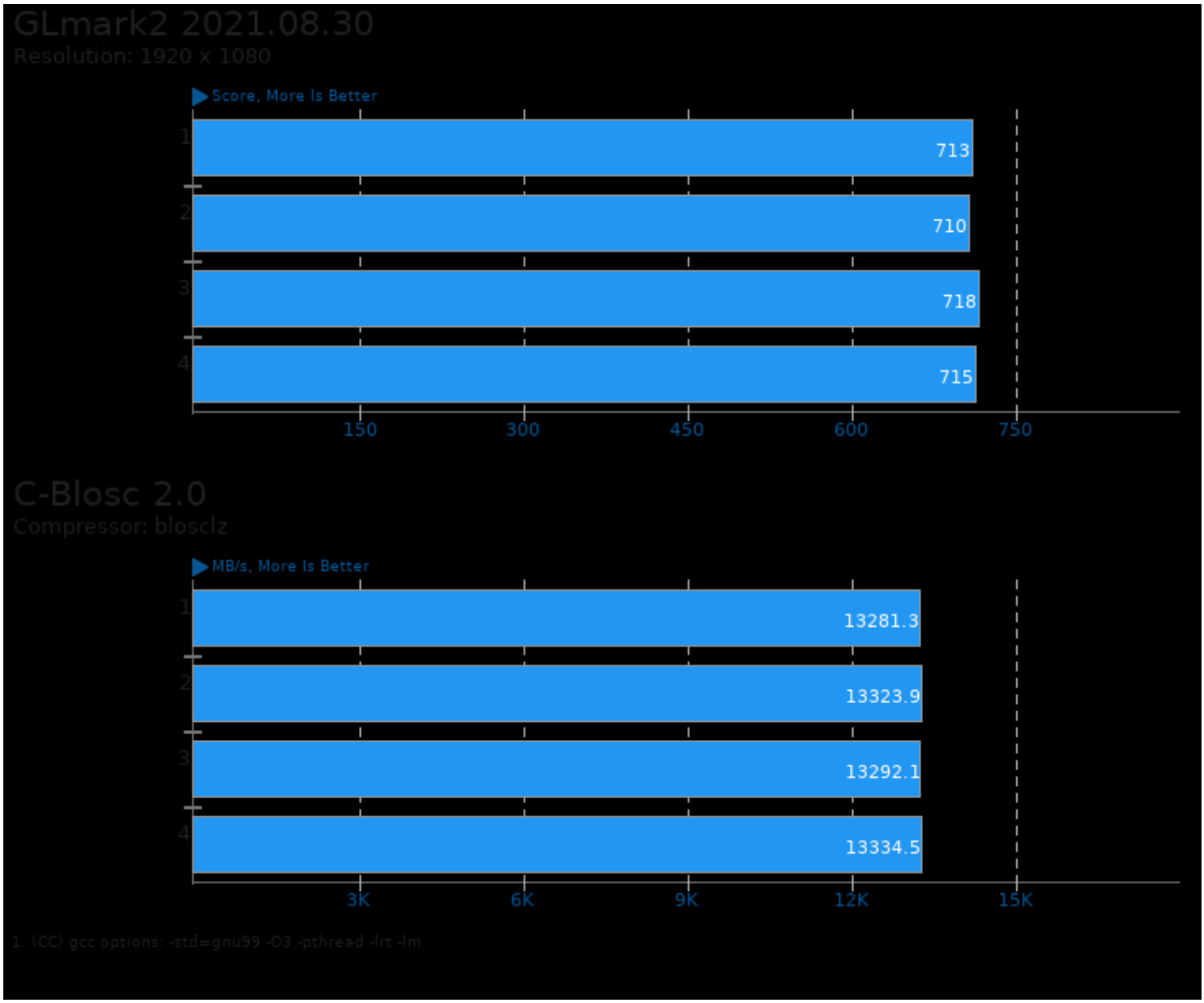

yquake2 8.0
Renderer: Vulkan - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
2
3
4
65.1
65.4
65.4
65.3
15
30
45
60
75
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf
yquake2 8.0
Renderer: OpenGL 1.x - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
2
3
4
165.8
166.4
166.3
167.7
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

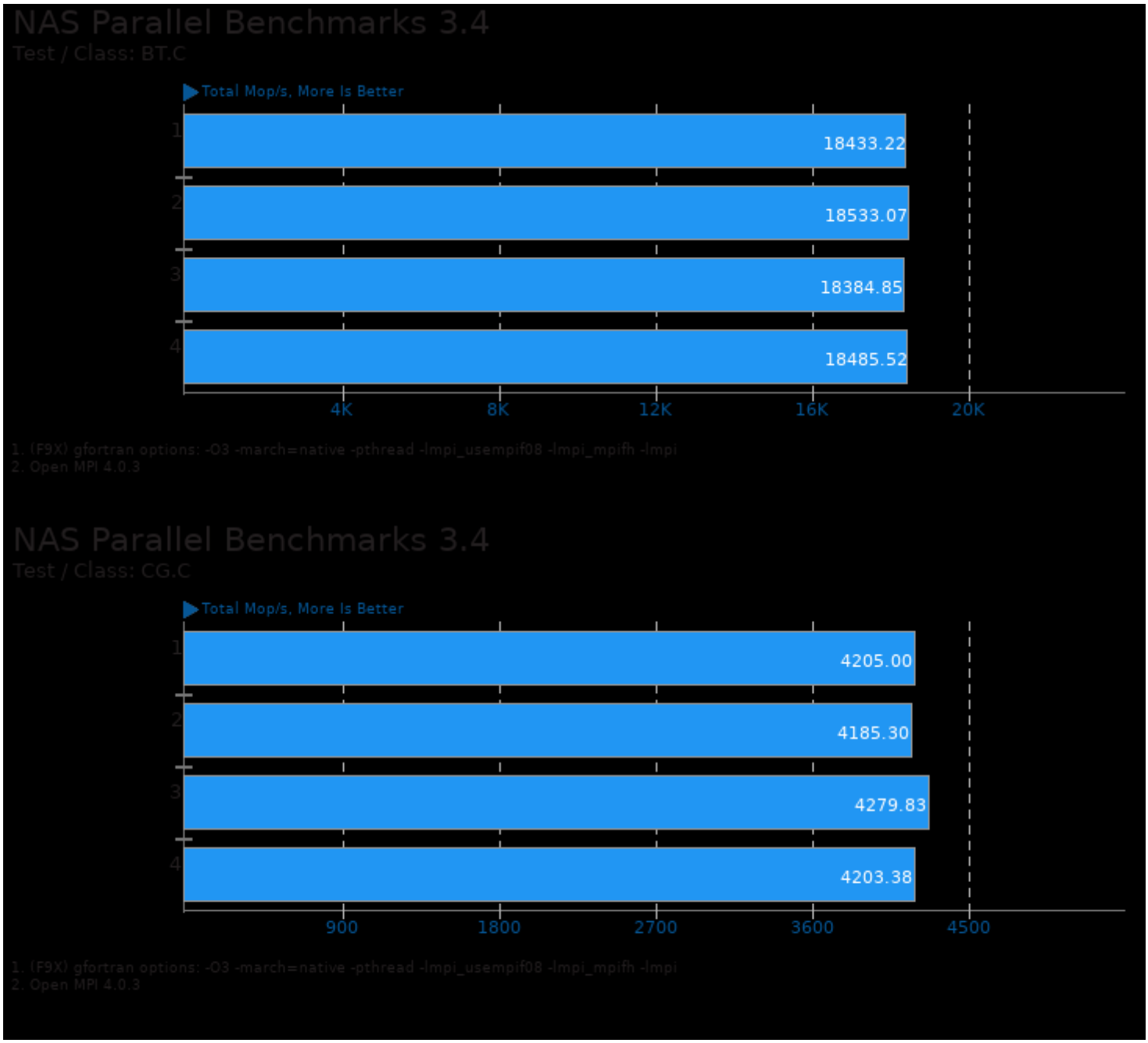

yquake2 8.0
Renderer: OpenGL 3.x - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
2
3
4
227.8
230.2
230.6
230.9
50
100
150
200
250
1. (CC) gcc options: -lm -ldl -rdynamic -shared -lSDL2 -O2 -pipe -fomit-frame-pointer -std=gnu99 -fno-strict-aliasing -fwrapv -fvisibility=hidden -MMD -mf
yquake2 8.0
Renderer: Software CPU - Resolution: 1920 x 1080
Frames Per Second, More Is Better
1
2
3
4
121.5
120.4
121.3
120.8
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

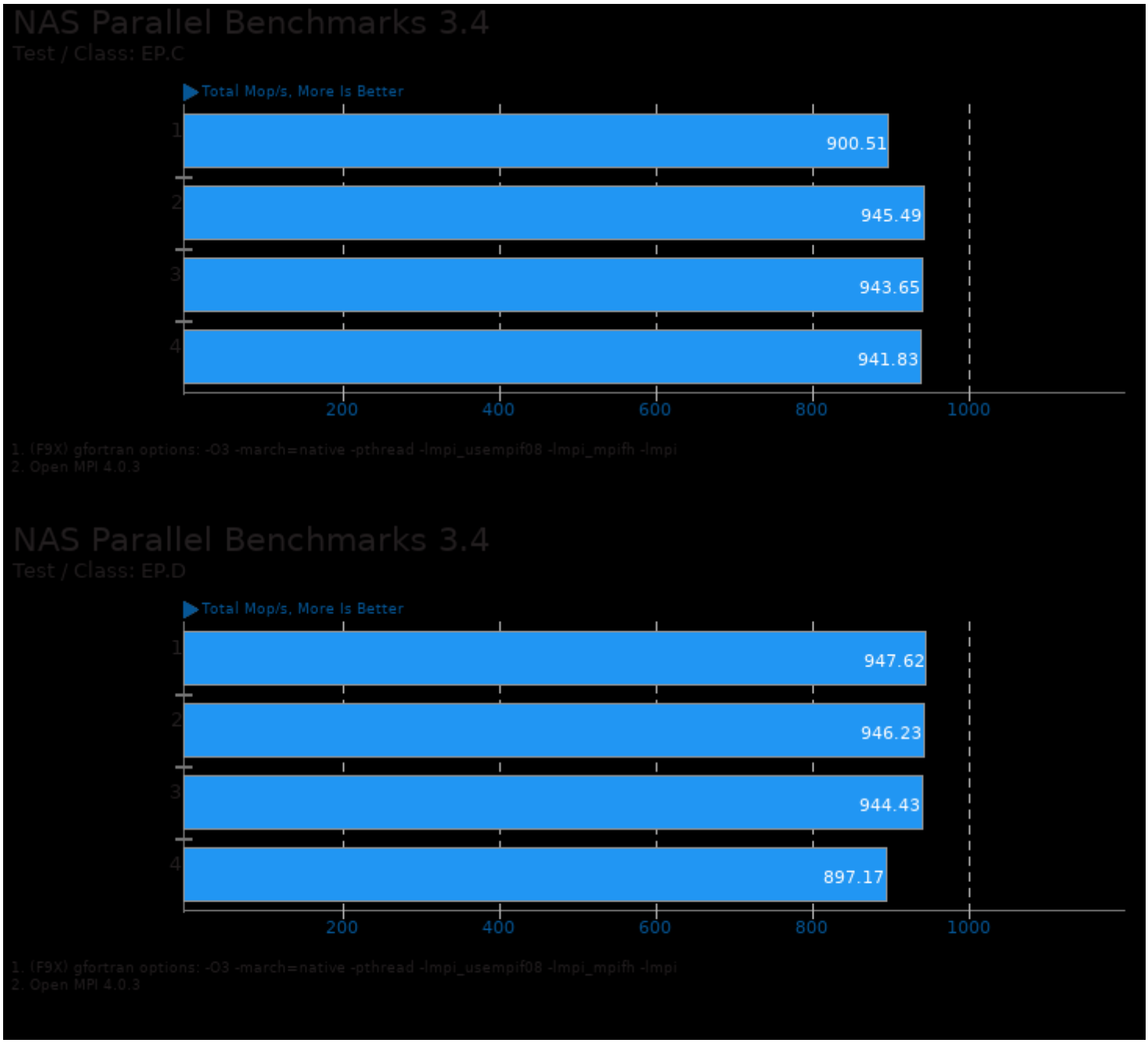
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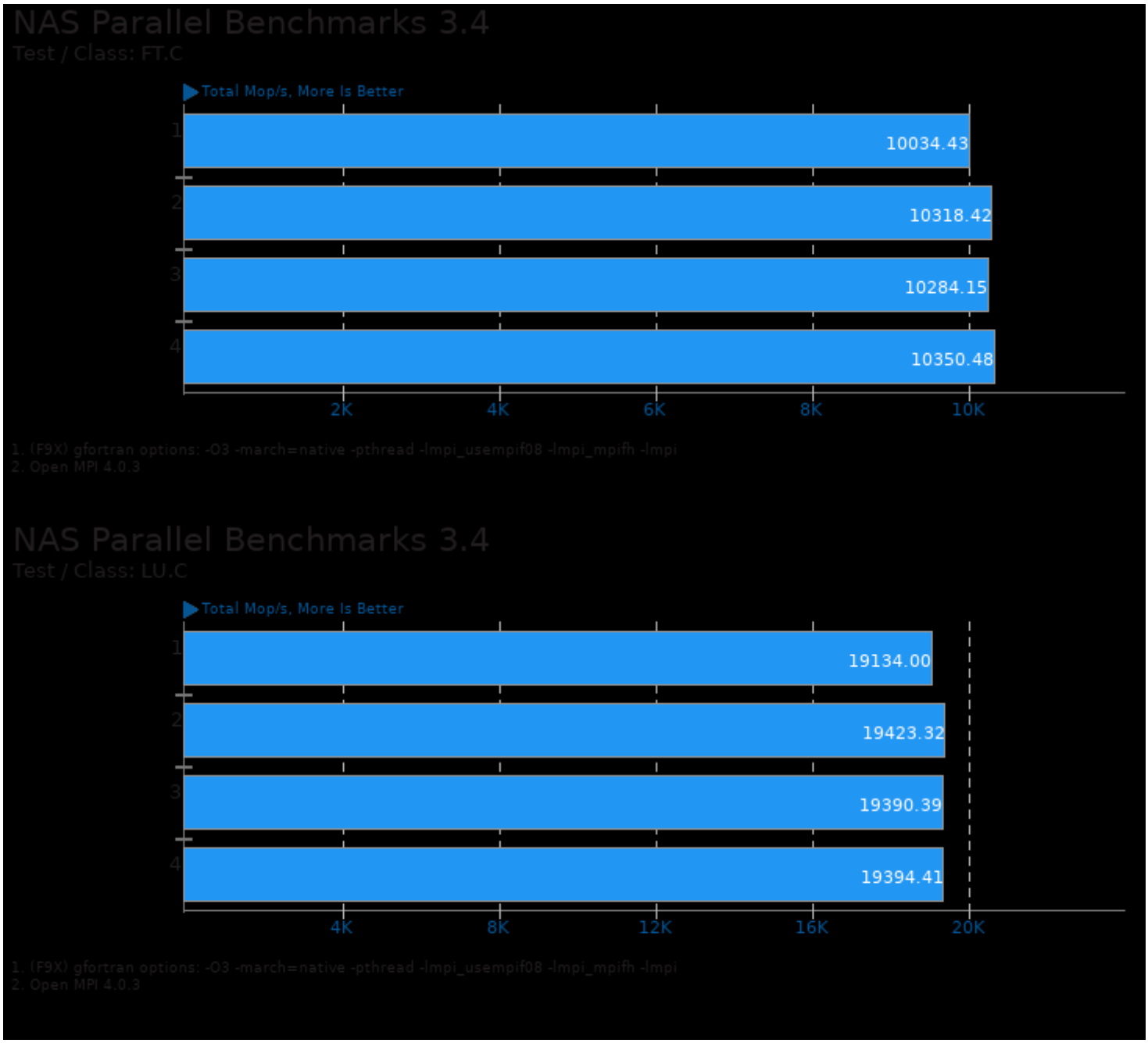


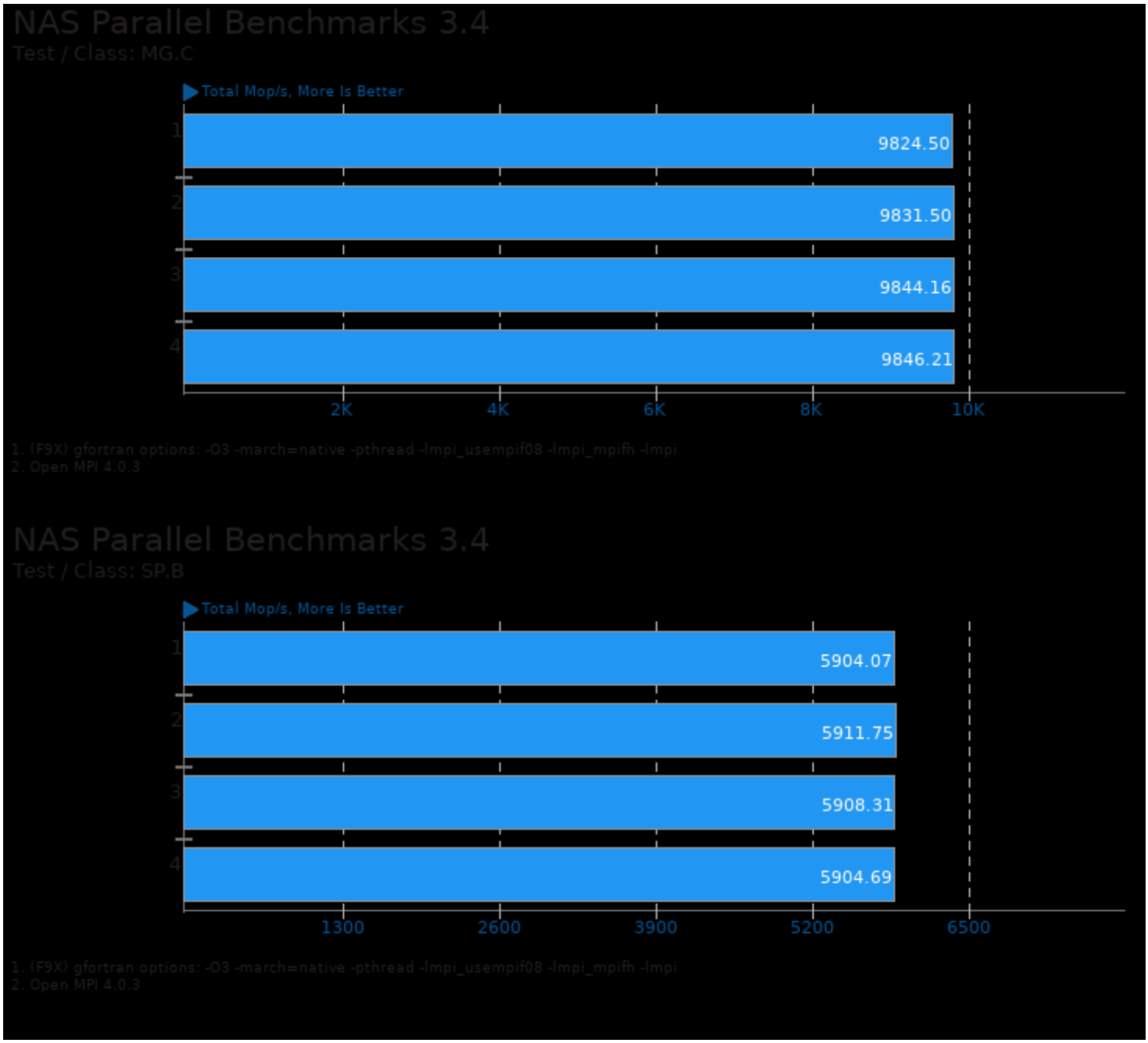
8700k september

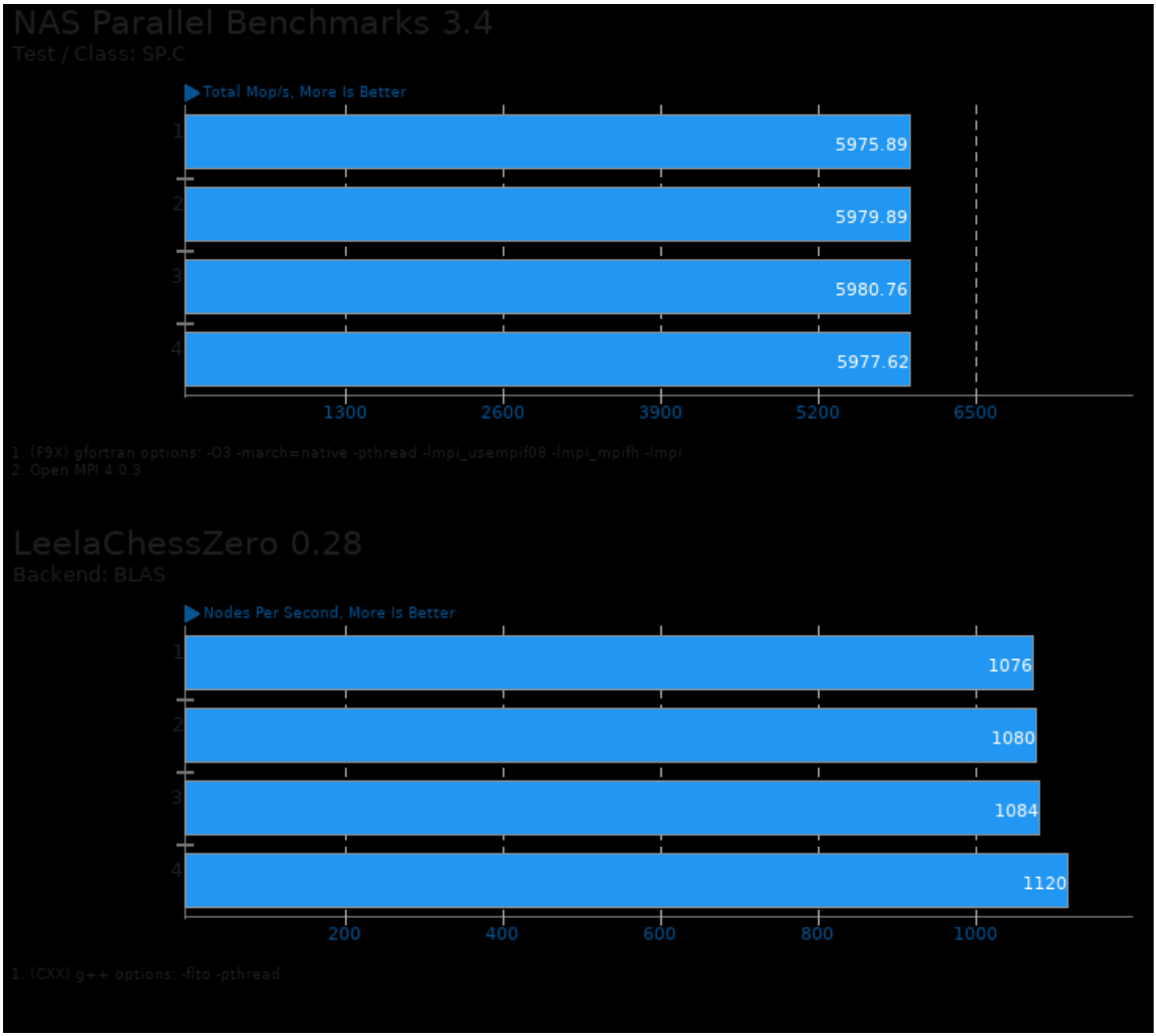



NAS Parallel Benchmarks 3.4
Test / Class: BT.C
Total Mop/s, More Is Better
1
2
3
4
18433.22
18533.07
18384.85
18485.52
4K
8K
12K
16K
20K
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3
NAS Parallel Benchmarks 3.4
Test / Class: CG.C
Total Mop/s, More Is Better
1
2
3
4
4205.00
4185.30
4279.83
4203.38
900
1800
2700
3600
4500
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

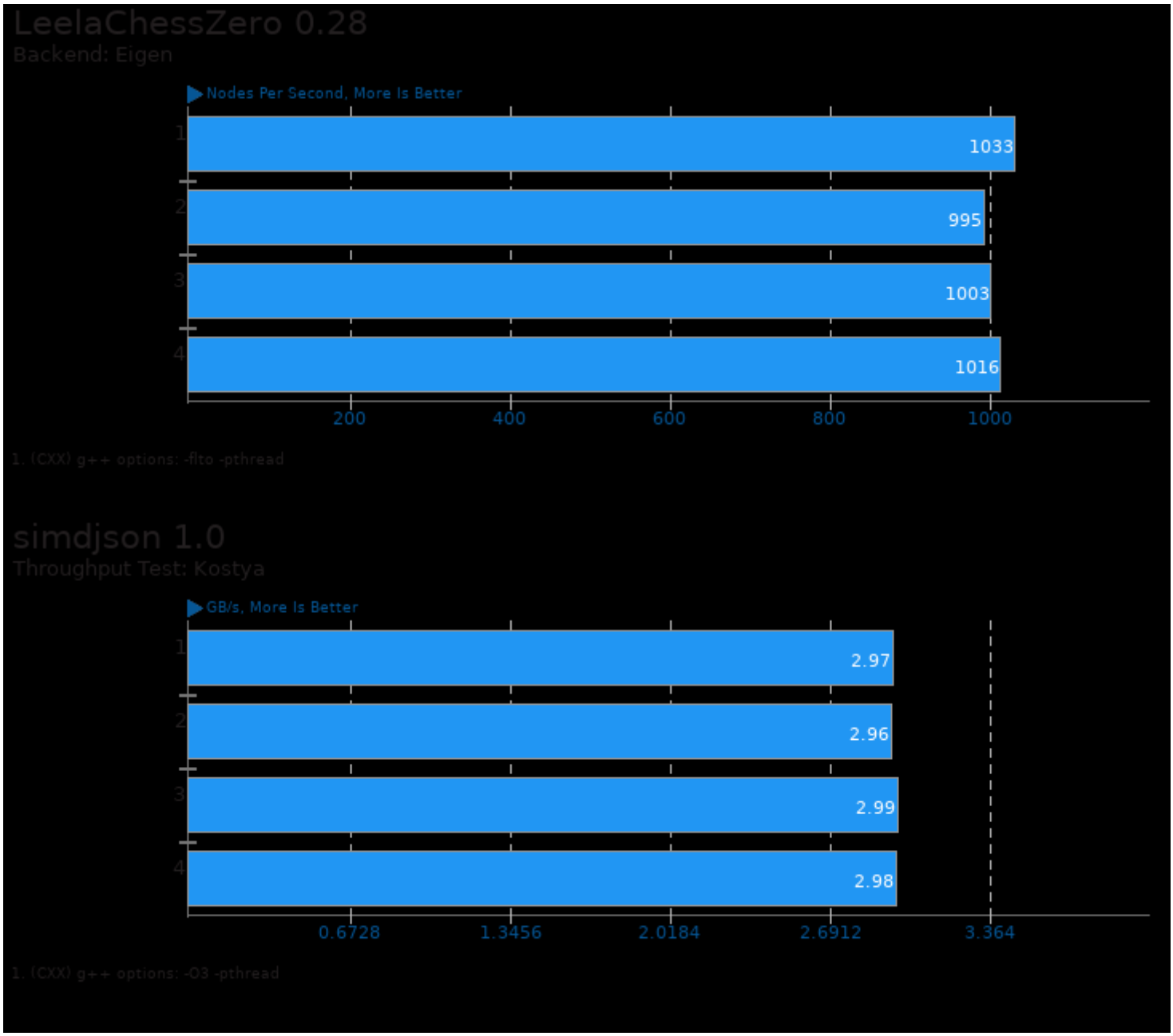

NAS Parallel Benchmarks 3.4
Test / Class: EP.C
Total Mop/s, More Is Better
1
2
3
4
900.51
945.49
943.65
941.83
200
400
600
800
1000
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3
NAS Parallel Benchmarks 3.4
Test / Class: EP.D
Total Mop/s, More Is Better
1
2
3
4
947.62
946.23
944.43
897.17
200
400
600
800
1000
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3

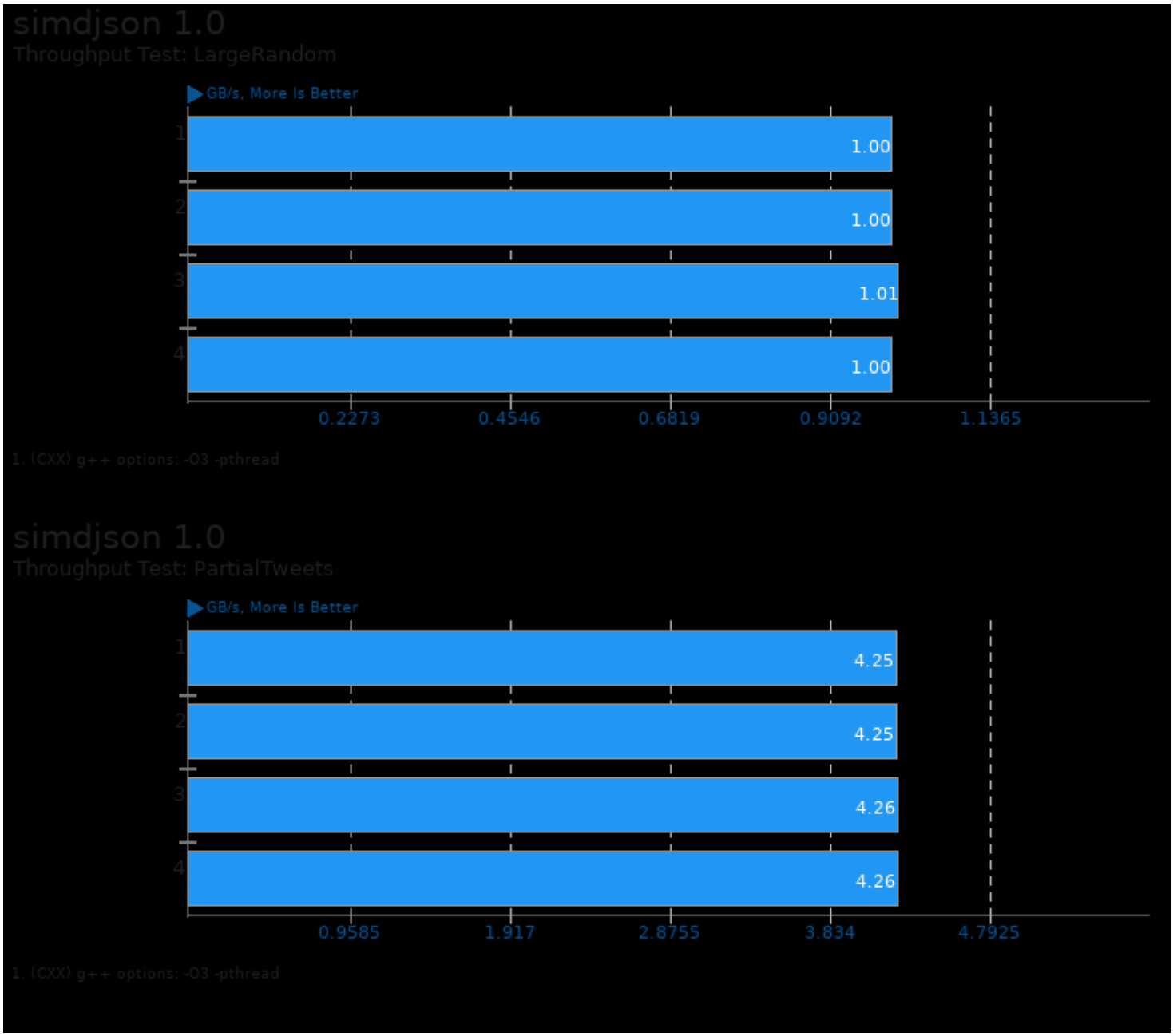

NAS Parallel Benchmarks 3.4
Test / Class: FT.C
Total Mop/s, More Is Better
1
2
3
4
10034.43
10318.42
10284.15
10350.48
2K
4K
6K
8K
10K
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3
NAS Parallel Benchmarks 3.4
Test / Class: LU.C
Total Mop/s, More Is Better
1
2
3
4
19134.00
19423.32
19390.39
19394.41
4K
8K
12K
16K
20K
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3


NAS Parallel Benchmarks 3.4
Test / Class: MG.C
Total Mop/s, More Is Better
1
2
3
4
9824.50
9831.50
9844.16
9846.21
2K
4K
6K
8K
10K
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3
NAS Parallel Benchmarks 3.4
Test / Class: SP.B
Total Mop/s, More Is Better
1
2
3
4
5904.07
5911.75
5908.31
5904.69
1300
2600
3900
5200
6500
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3


NAS Parallel Benchmarks 3.4
Test / Class: SP.C
Total Mop/s, More Is Better
1
2
3
4
5975.89
5979.89
5980.76
5977.62
1300
2600
3900
5200
6500
1. (F9X) gfortran options: -O3 -march=native -pthread -lmpi_usempif08 -lmpi_mpifh -lmpi
2. Open MPI 4.0.3
LeelaChessZero 0.28
Backend: BLAS
Nodes Per Second, More Is Better
1
2
3
4
1076
1080
1084
1120
200
400
600
800
1000
1. (CXX) g++ options: -flto -pthread

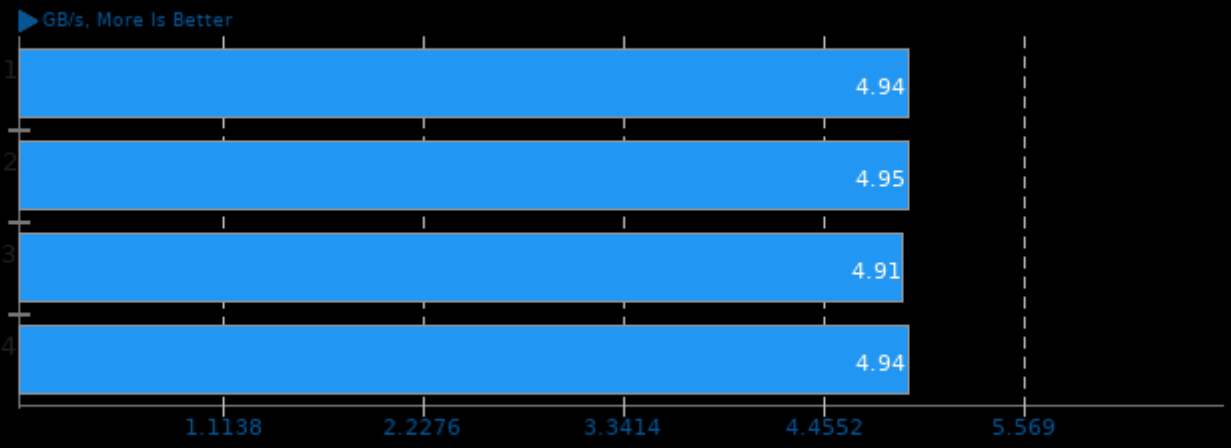
8700k september




simdjson 1.0
Throughput Test: LargeRandom
GB/s, More Is Better
1
2
3
4
1.00
1.00
1.01
1.00
0.2273
0.4546
0.6819
0.9092
1.1365
1. (CXX) g++ options: -O3 -pthread
simdjson 1.0
Throughput Test: PartialTweets
GB/s, More Is Better
1
2
3
4
4.25
4.25
4.26
4.26
0.9585
1.917
2.8755
3.834
4.7925
1. (CXX) g++ options: -O3 -pthread

simdjson 1.0

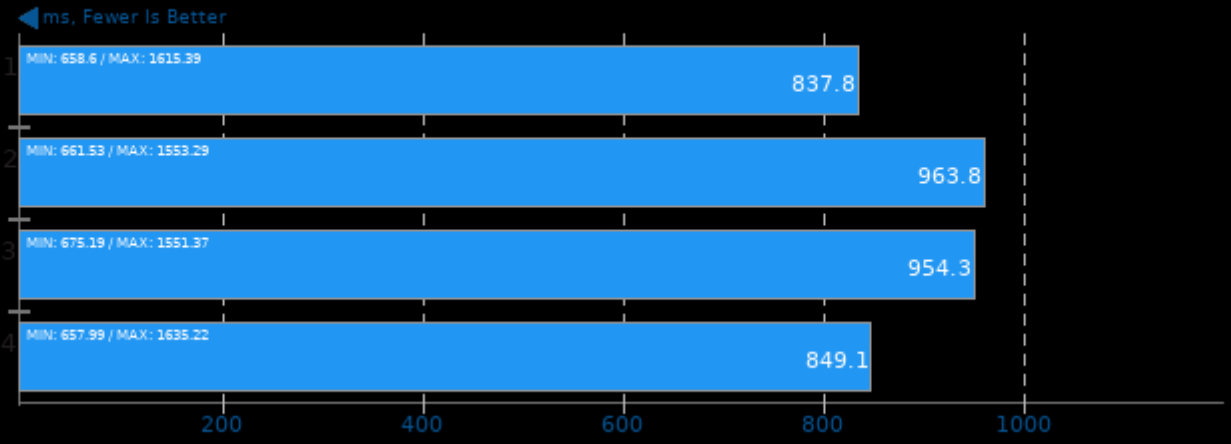
Throughput Test: DistinctUserID



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

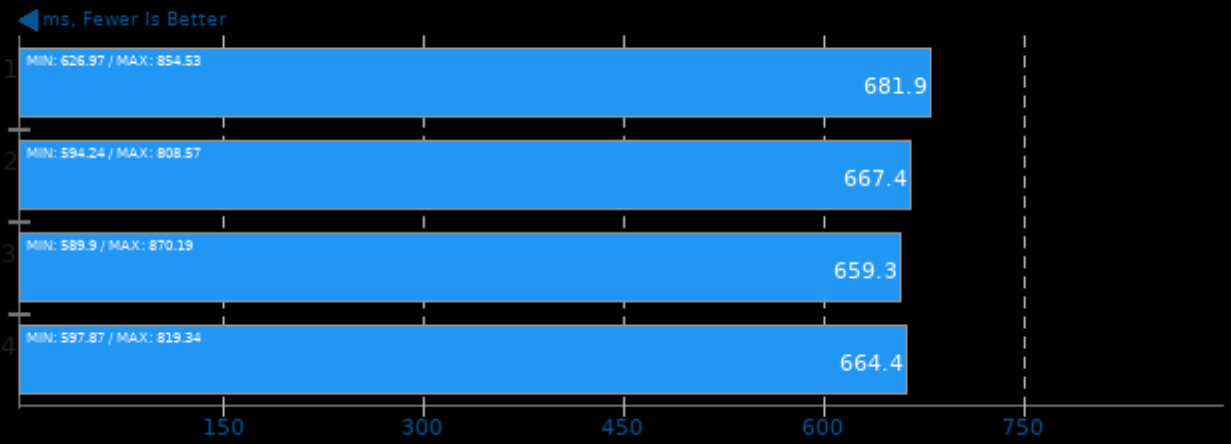
Renaissance 0.12

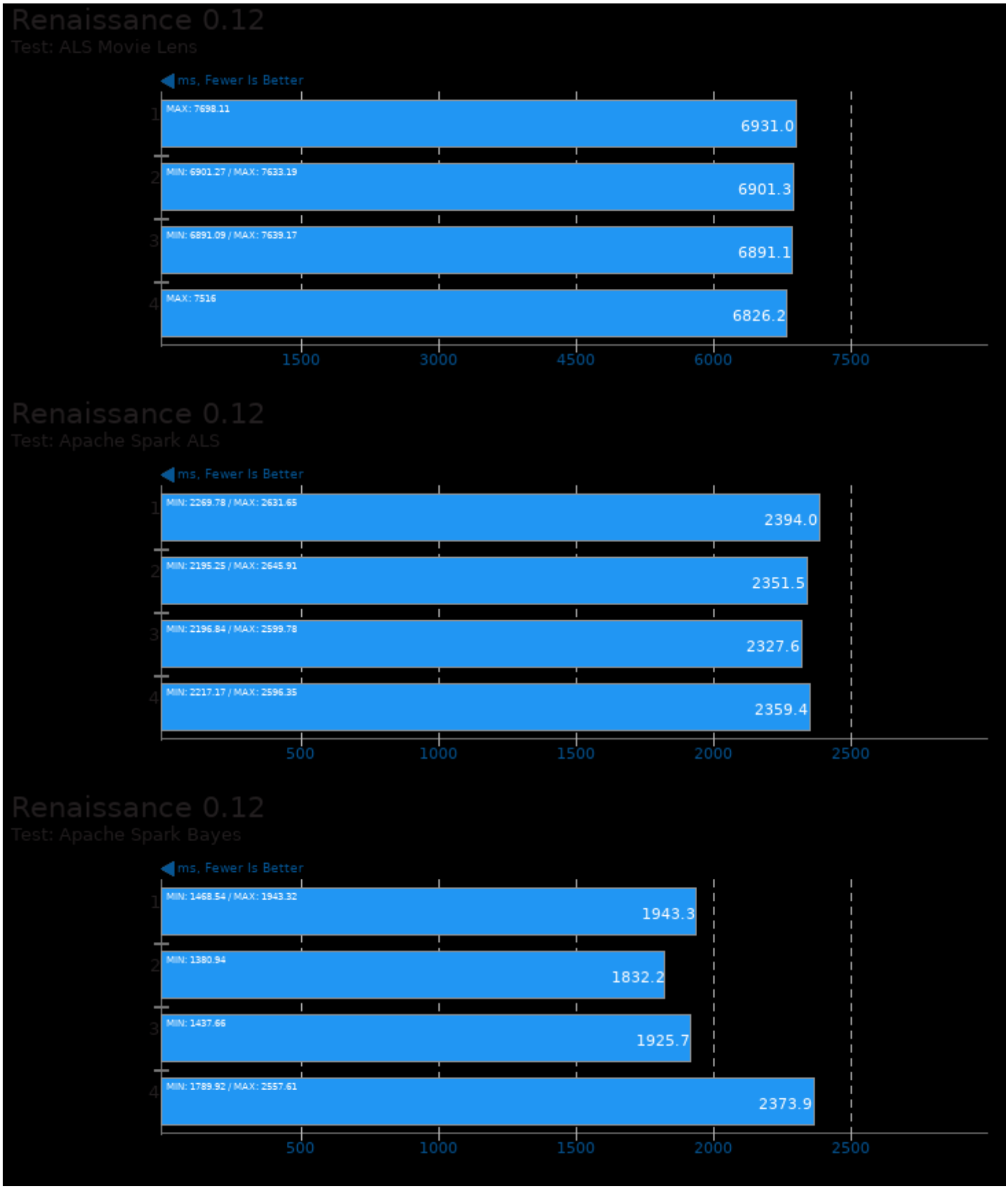
Test: Scala Dotty



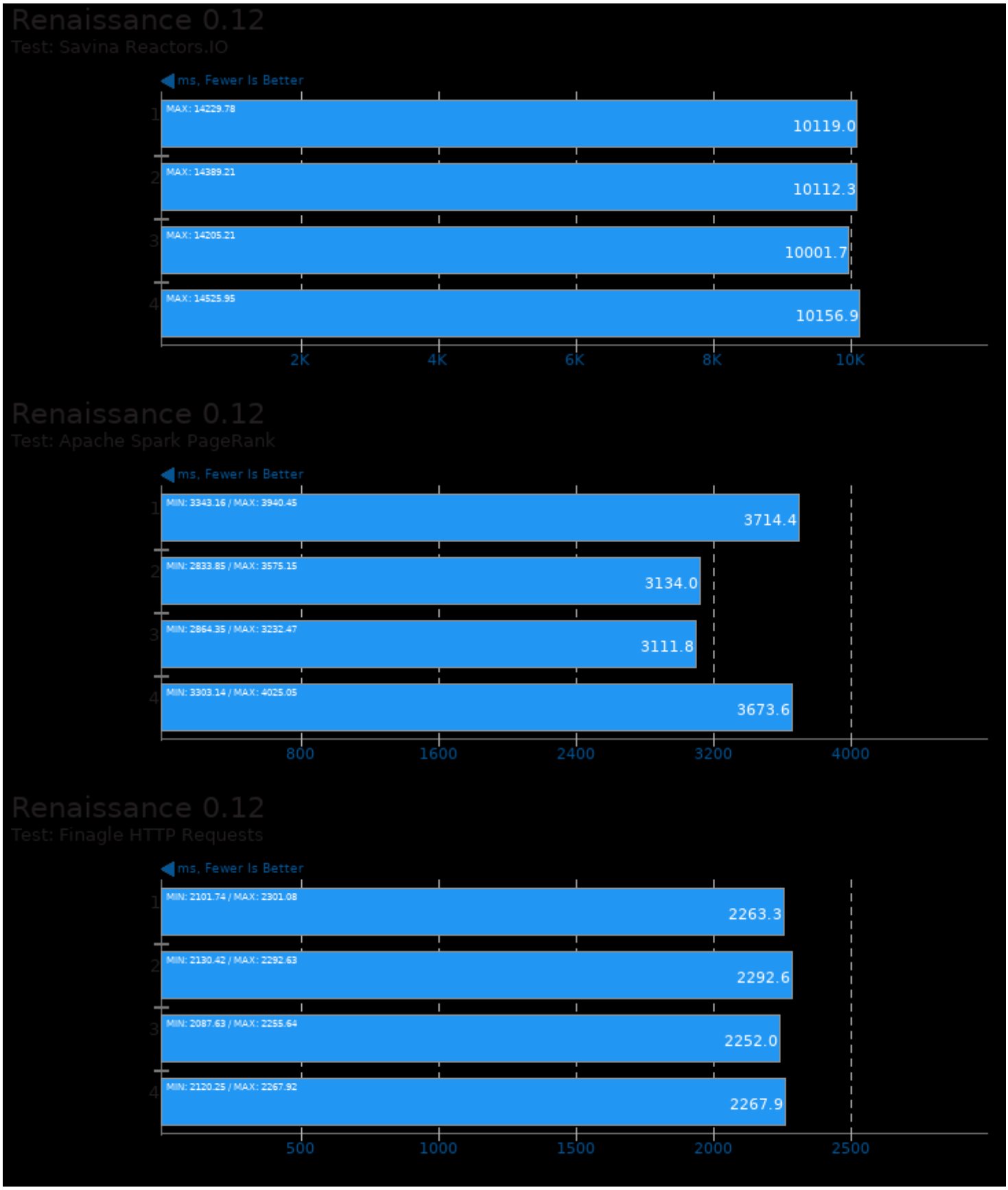
Renaissance 0.12

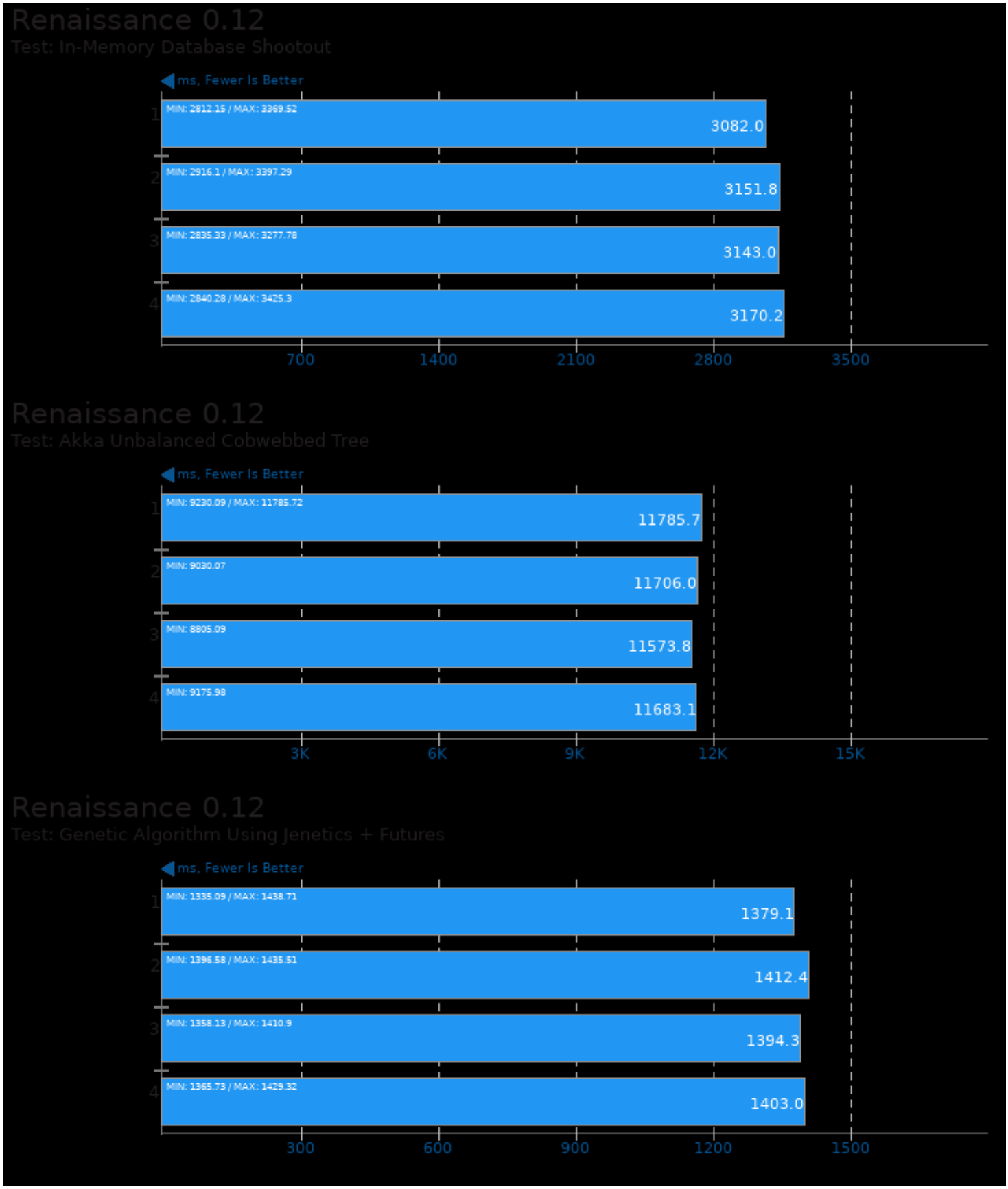
Test: Random Forest

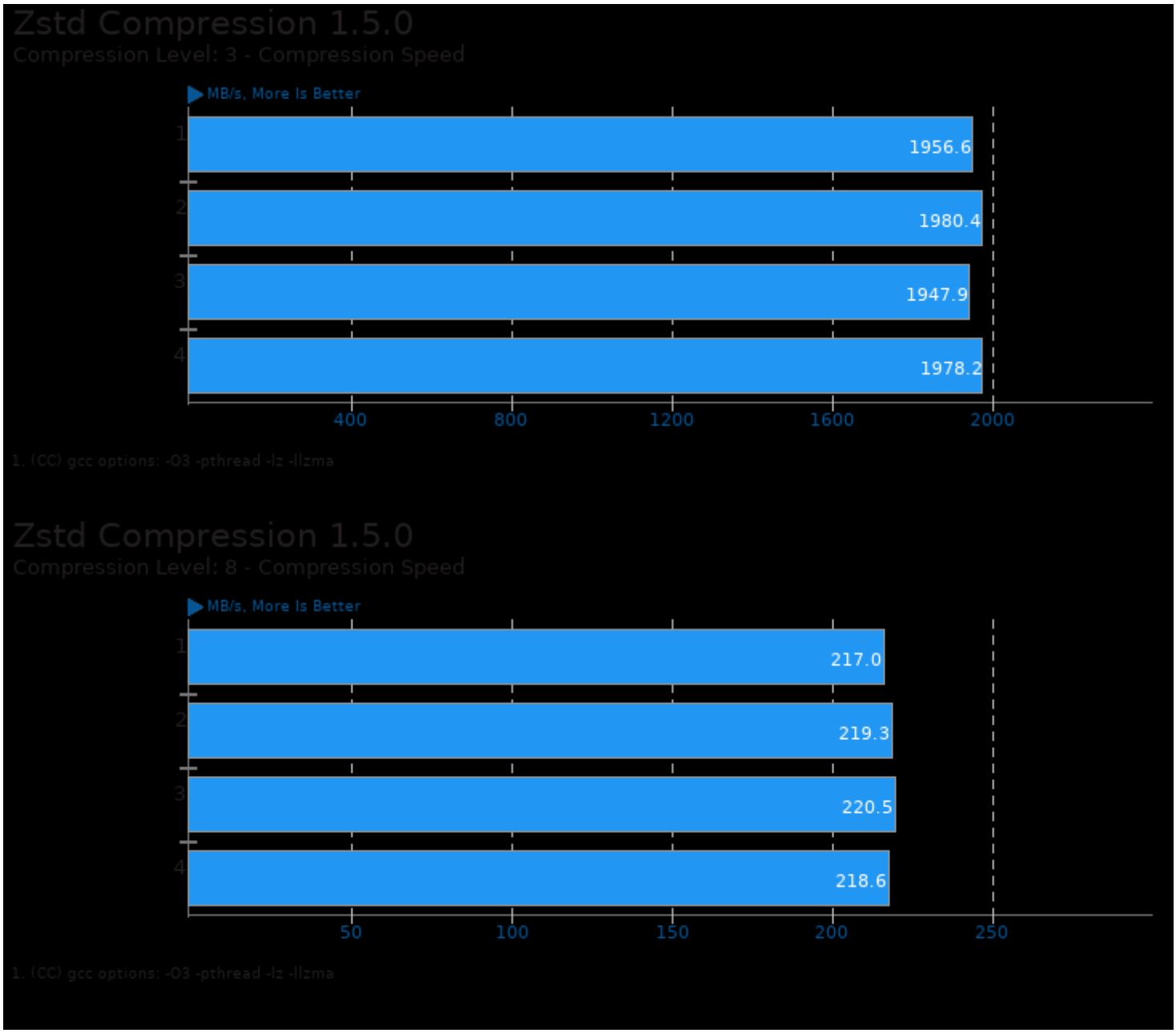


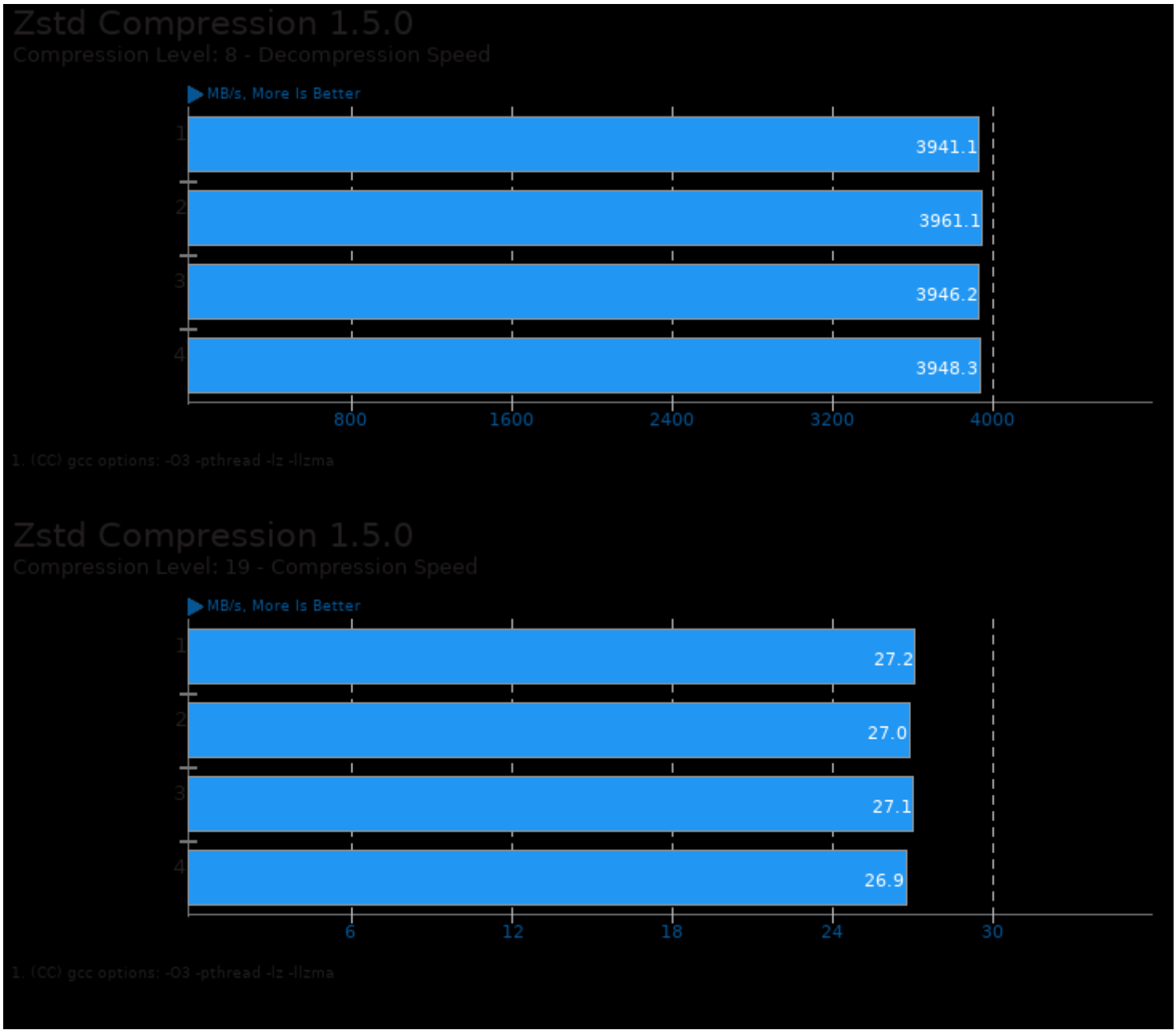

Renaissance 0.12
Test: ALS Movie Lens
ms, Fewer Is Better
1
MAX: 7698.11
6931.0
2
MIN: 6901.27 / MAX: 7633.19
6901.3
3
MIN: 6891.09 / MAX: 7639.17
6891.1
4
MAX: 7516
6826.2
1500
3000
4500
6000
7500
Renaissance 0.12
Test: Apache Spark ALS
ms, Fewer Is Better
1
MIN: 2269.78 / MAX: 2631.65
2394.0
2
MIN: 2195.25 / MAX: 2645.91
2351.5
3
MIN: 2196.84 / MAX: 2599.78
2327.6
4
MIN: 2217.17 / MAX: 2596.35
2359.4
500
1000
1500
2000
2500
Renaissance 0.12
Test: Apache Spark Bayes
ms, Fewer Is Better
1
MIN: 1468.54 / MAX: 1943.32
1943.3
2
MIN: 1380.94
1832.2
3
MIN: 1437.66
1925.7
4
MIN: 1789.92 / MAX: 2557.61
2373.9
500
1000
1500
2000
2500

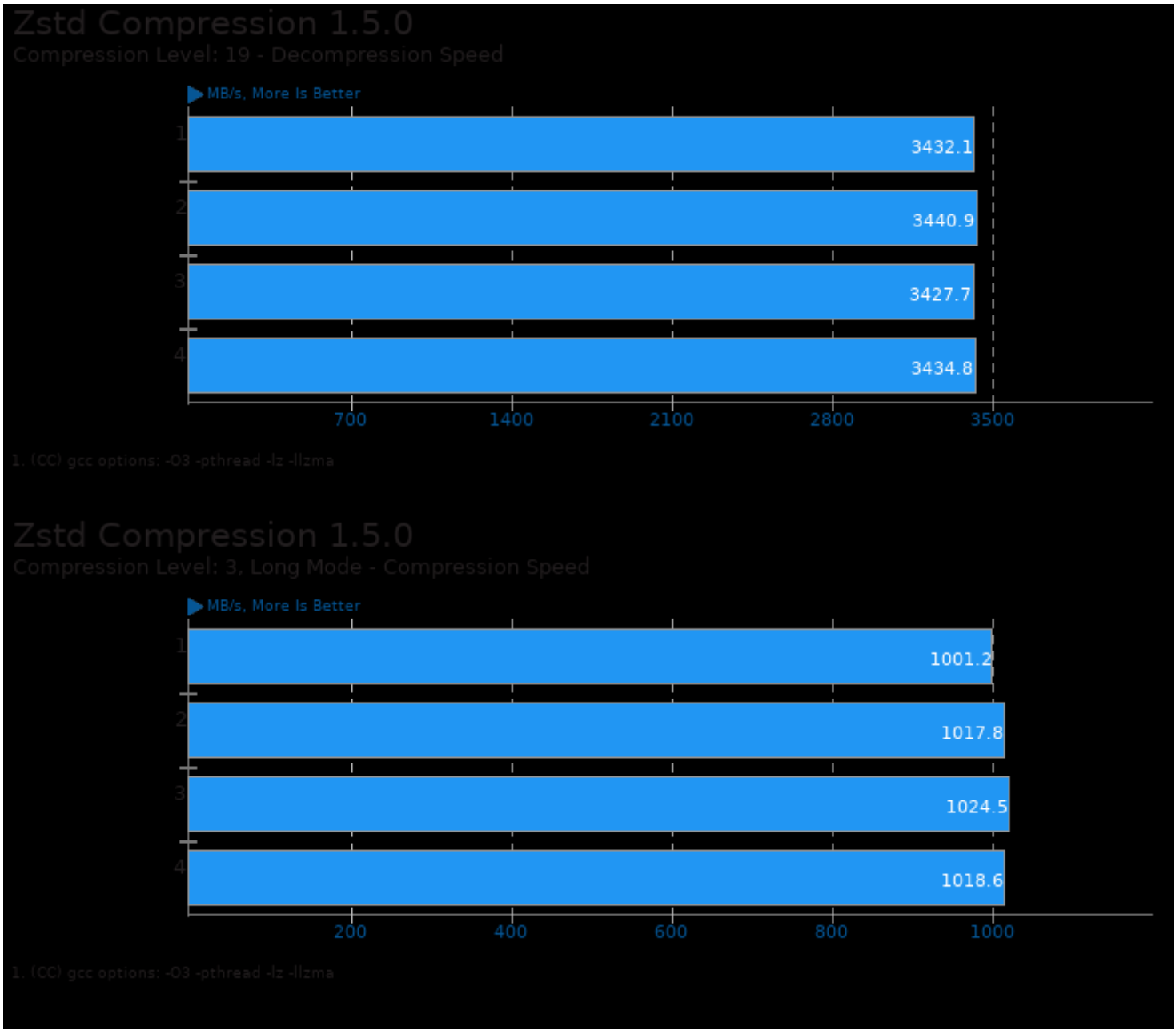
8700k september

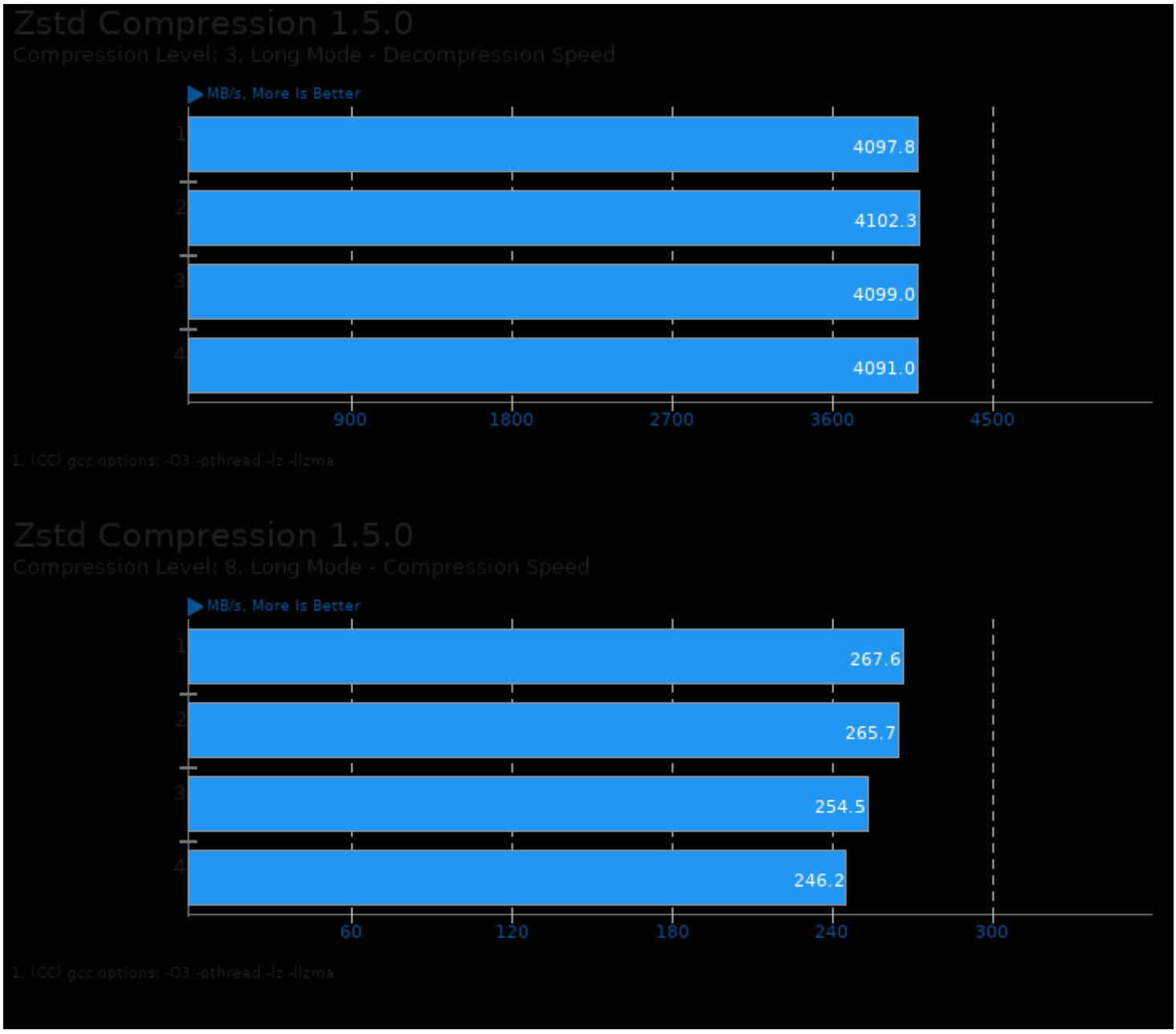



Renaissance 0.12
Test: In-Memory Database Shootout
ms, Fewer Is Better
1
MIN: 2812.15 / MAX: 3369.52
3082.0
2
MIN: 2916.1 / MAX: 3397.29
3151.8
3
MIN: 2835.33 / MAX: 3277.78
3143.0
4
MIN: 2840.28 / MAX: 3425.3
3170.2
700
1400
2100
2800
3500
Renaissance 0.12
Test: Akka Unbalanced Cobwebbed Tree
ms, Fewer Is Better
1
MIN: 9230.09 / MAX: 11785.72
11785.7
2
MIN: 9030.07
11706.0
3
MIN: 8805.09
11573.8
4
MIN: 9175.98
11683.1
3K
6K
9K
12K
15K
Renaissance 0.12
Test: Genetic Algorithm Using Jenetics + Futures
ms, Fewer Is Better
1
MIN: 1335.09 / MAX: 1438.71
1379.1
2
MIN: 1396.58 / MAX: 1435.51
1412.4
3
MIN: 1358.13 / MAX: 1410.9
1394.3
4
MIN: 1365.73 / MAX: 1429.32
1403.0
300
600
900
1200
1500

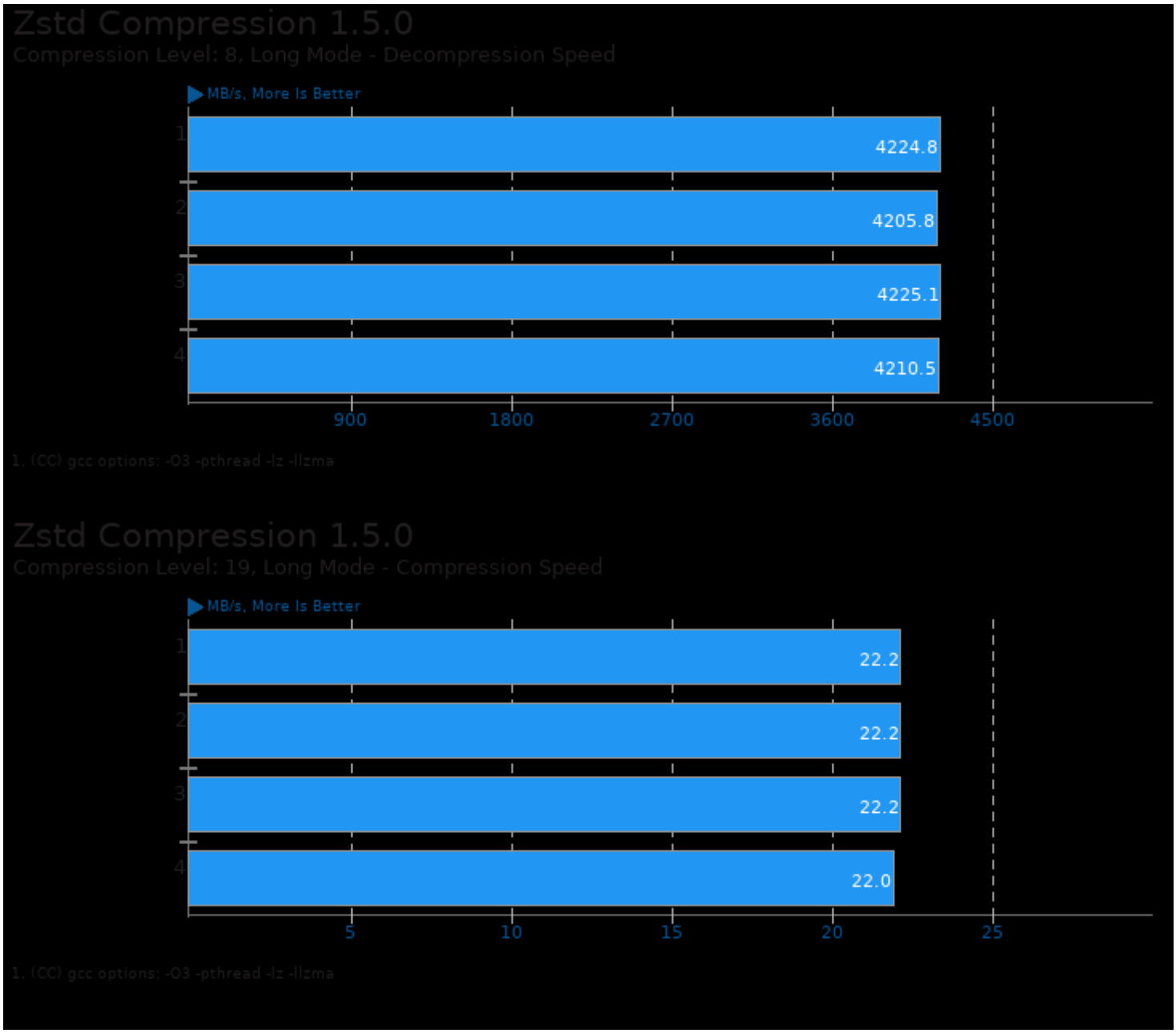

Zstd Compression 1.5.0
Compression Level: 3 - Compression Speed
MB/s, More Is Better
1
2
3
4
1956.6
1980.4
1947.9
1978.2
400
800
1200
1600
2000
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.5.0
Compression Level: 8 - Compression Speed
MB/s, More Is Better
1
2
3
4
217.0
219.3
220.5
218.6
50
100
150
200
250
1. (CC) gcc options: -O3 -pthread -lz -llzma

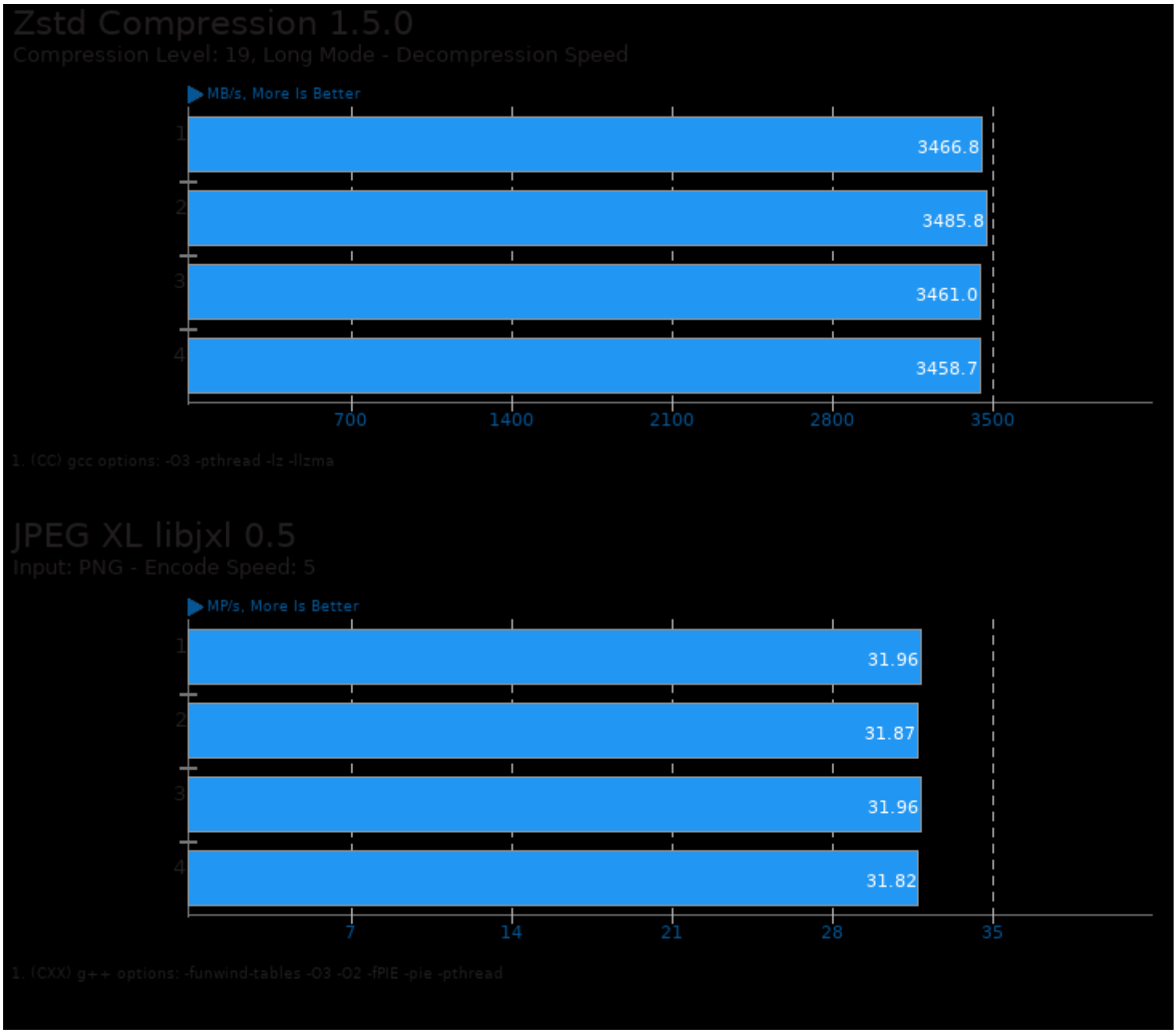

Zstd Compression 1.5.0
Compression Level: 8 - Decompression Speed
MB/s, More Is Better
1
2
3
4
3941.1
3961.1
3946.2
3948.3
800
1600
2400
3200
4000
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.5.0
Compression Level: 19 - Compression Speed
MB/s, More Is Better
1
2
3
4
27.2
27.0
27.1
26.9
6
12
18
24
30
1. (CC) gcc options: -O3 -pthread -lz -llzma


Zstd Compression 1.5.0
Compression Level: 19 - Decompression Speed
MB/s, More Is Better
1
2
3
4
3432.1
3440.9
3427.7
3434.8
700
1400
2100
2800
3500
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.5.0
Compression Level: 3, Long Mode - Compression Speed
MB/s, More Is Better
1
2
3
4
1001.2
1017.8
1024.5
1018.6
200
400
600
800
1000
1. (CC) gcc options: -O3 -pthread -lz -llzma


Zstd Compression 1.5.0
Compression Level: 3, Long Mode - Decompression Speed
MB/s, More Is Better
1
2
3
4
4097.8
4102.3
4099.0
4091.0
900
1800
2700
3600
4500
1. (CC) gcc options: -O3 -pthread -lz -llzma

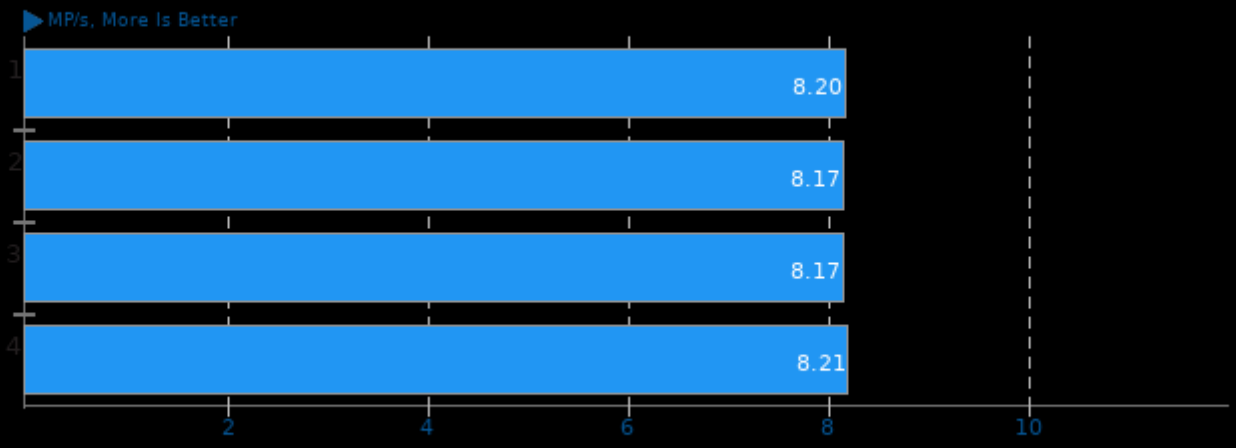
Zstd Compression 1.5.0
Compression Level: 8, Long Mode - Compression Speed
MB/s, More Is Better
1
2
3
4
267.6
265.7
254.5
246.2
60
120
180
240
300
1. (CC) gcc options: -O3 -pthread -lz -llzma


Zstd Compression 1.5.0
Compression Level: 8, Long Mode - Decompression Speed
MB/s, More Is Better
1
2
3
4
4224.8
4205.8
4225.1
4210.5
900
1800
2700
3600
4500
1. (CC) gcc options: -O3 -pthread -lz -llzma
Zstd Compression 1.5.0
Compression Level: 19, Long Mode - Compression Speed
MB/s, More Is Better
1
2
3
4
22.2
22.2
22.2
22.0
5
10
15
20
25
1. (CC) gcc options: -O3 -pthread -lz -llzma


Zstd Compression 1.5.0
Compression Level: 19, Long Mode - Decompression Speed
MB/s, More Is Better
1
2
3
4
3466.8
3485.8
3461.0
3458.7
700
1400
2100
2800
3500
1. (CC) gcc options: -O3 -pthread -lz -llzma
JPEG XL libjxl 0.5
Input: PNG - Encode Speed: 5
MP/s, More Is Better
1
2
3
4
31.96
31.87
31.96
31.82
7
14
21
28
35
1. (CXX) g++ options: -funwind-tables -O3 -O2 -fPIE -pie -pthread

JPEG XL libjxl 0.5

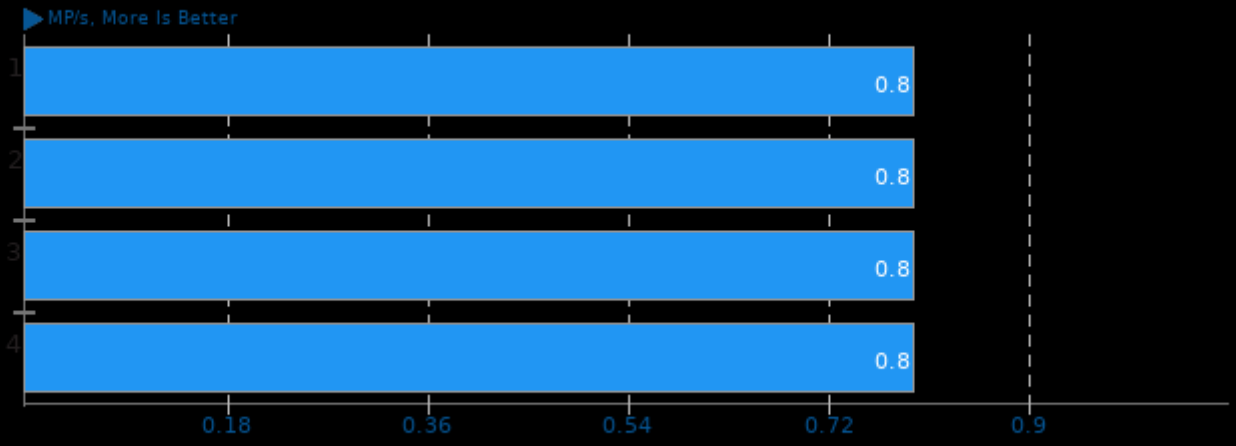
Input: PNG - Encode Speed: 7



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

JPEG XL libjxl 0.5

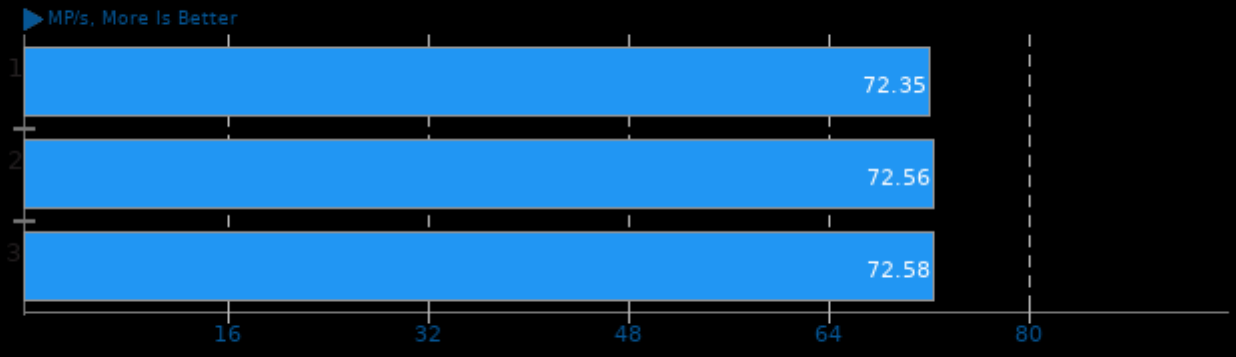
Input: PNG - Encode Speed: 8



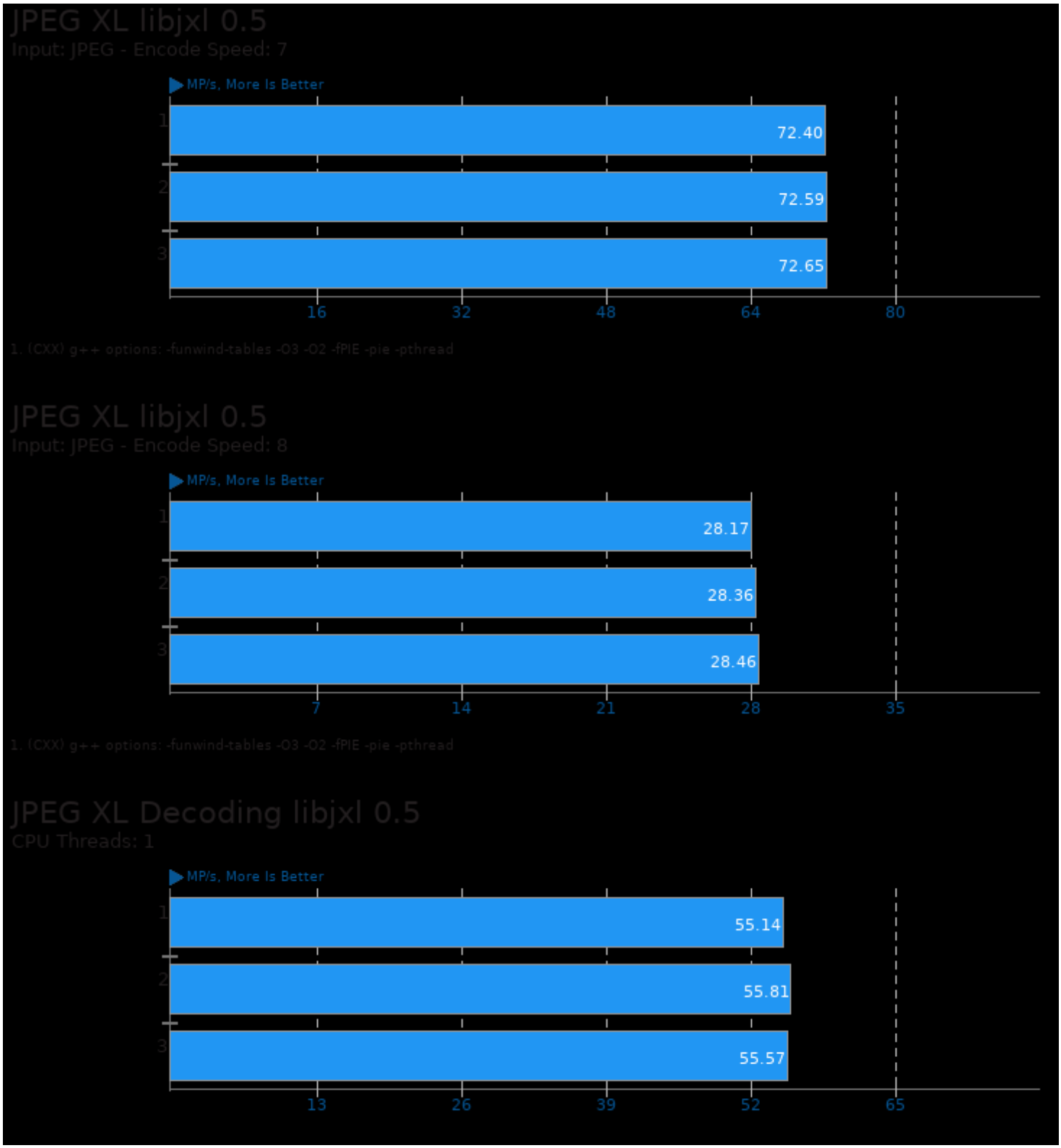
1. (CXX) g++ options: -funwind-tables -O3 -O2 -fPIE -pie -pthread

JPEG XL libjxl 0.5

Input: JPEG - Encode Speed: 5

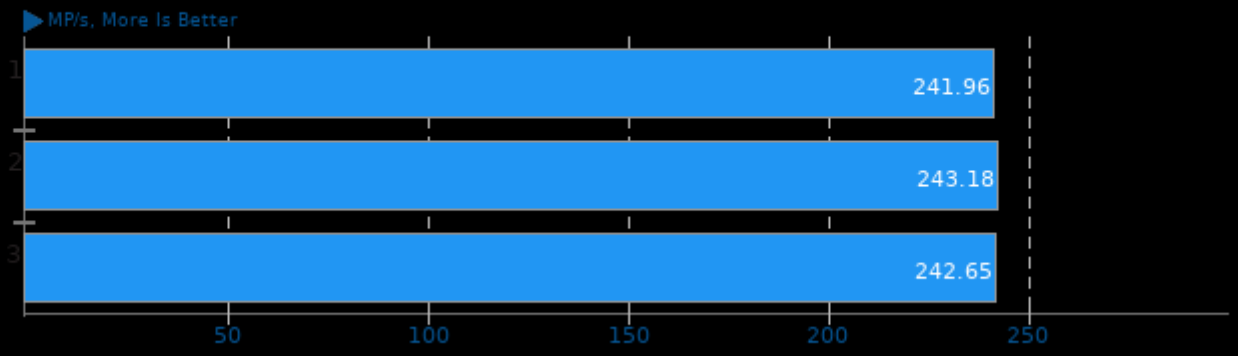


1. (CXX) g++ options: -funwind-tables -O3 -O2 -fPIE -pie -pthread


JPEG XL libjxl 0.5
Input: JPEG - Encode Speed: 7
MP/s, More Is Better
1
2
3
72.40
72.59
72.65
16
32
48
64
80
1. (CXX) g++ options: -funwind-tables -O3 -O2 -fPIE -pie -pthread
JPEG XL libjxl 0.5
Input: JPEG - Encode Speed: 8
MP/s, More Is Better
1
2
3
28.17
28.36
28.46
7
14
21
28
35
1. (CXX) g++ options: -funwind-tables -O3 -O2 -fPIE -pie -pthread
JPEG XL Decoding libjxl 0.5
CPU Threads: 1
MP/s, More Is Better
1
2
3
55.14
55.81
55.57
13
26
39
52
65

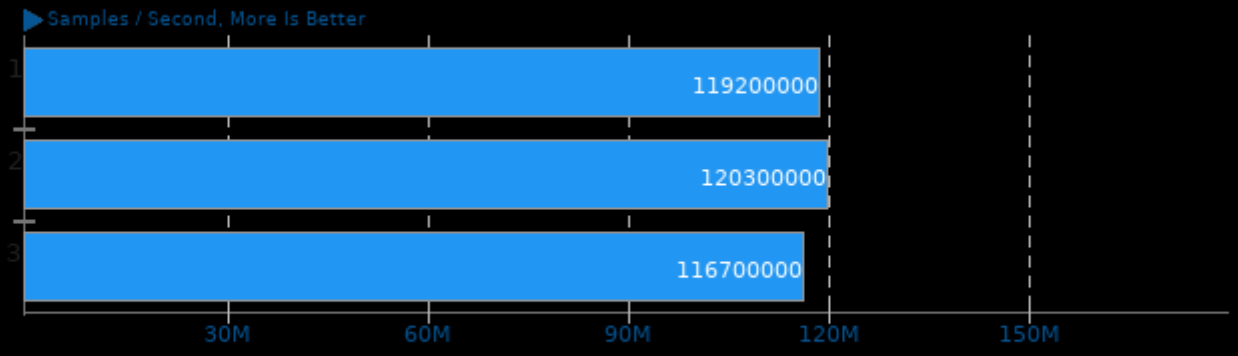
JPEG XL Decoding libjxl 0.5

CPU Threads: All



srsRAN 21.04

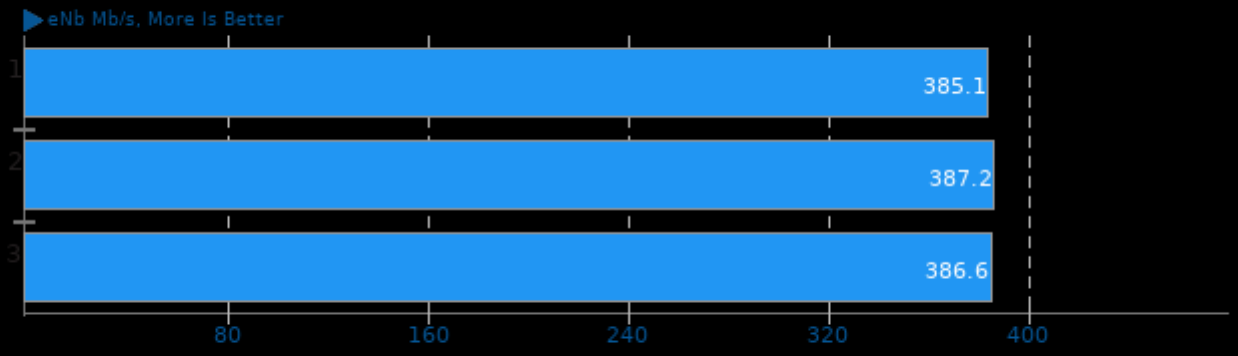
Test: OFDM_Test



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

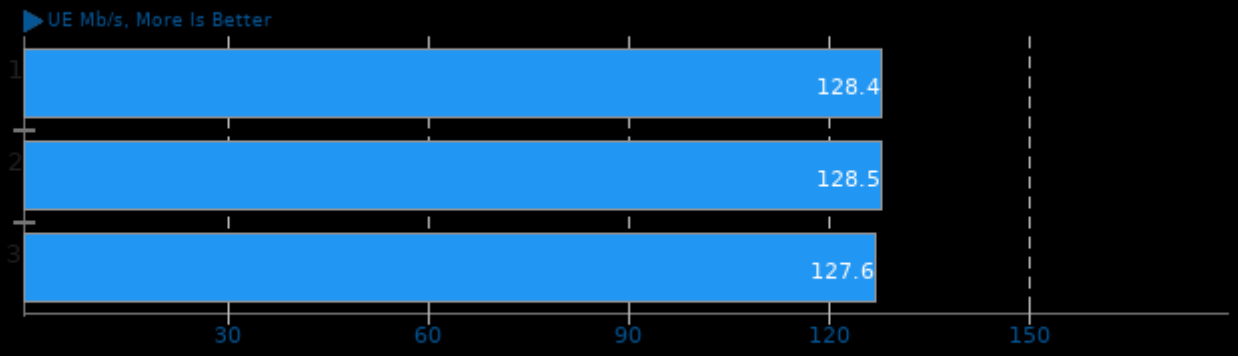
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

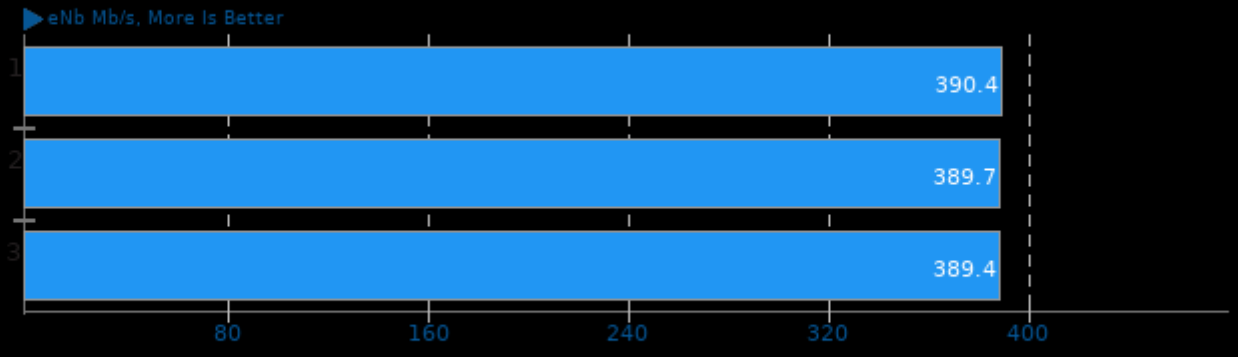
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

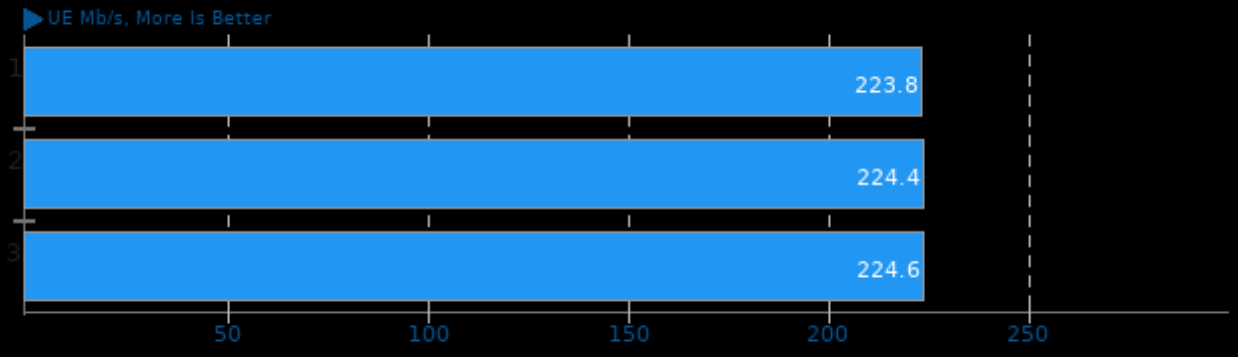
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM



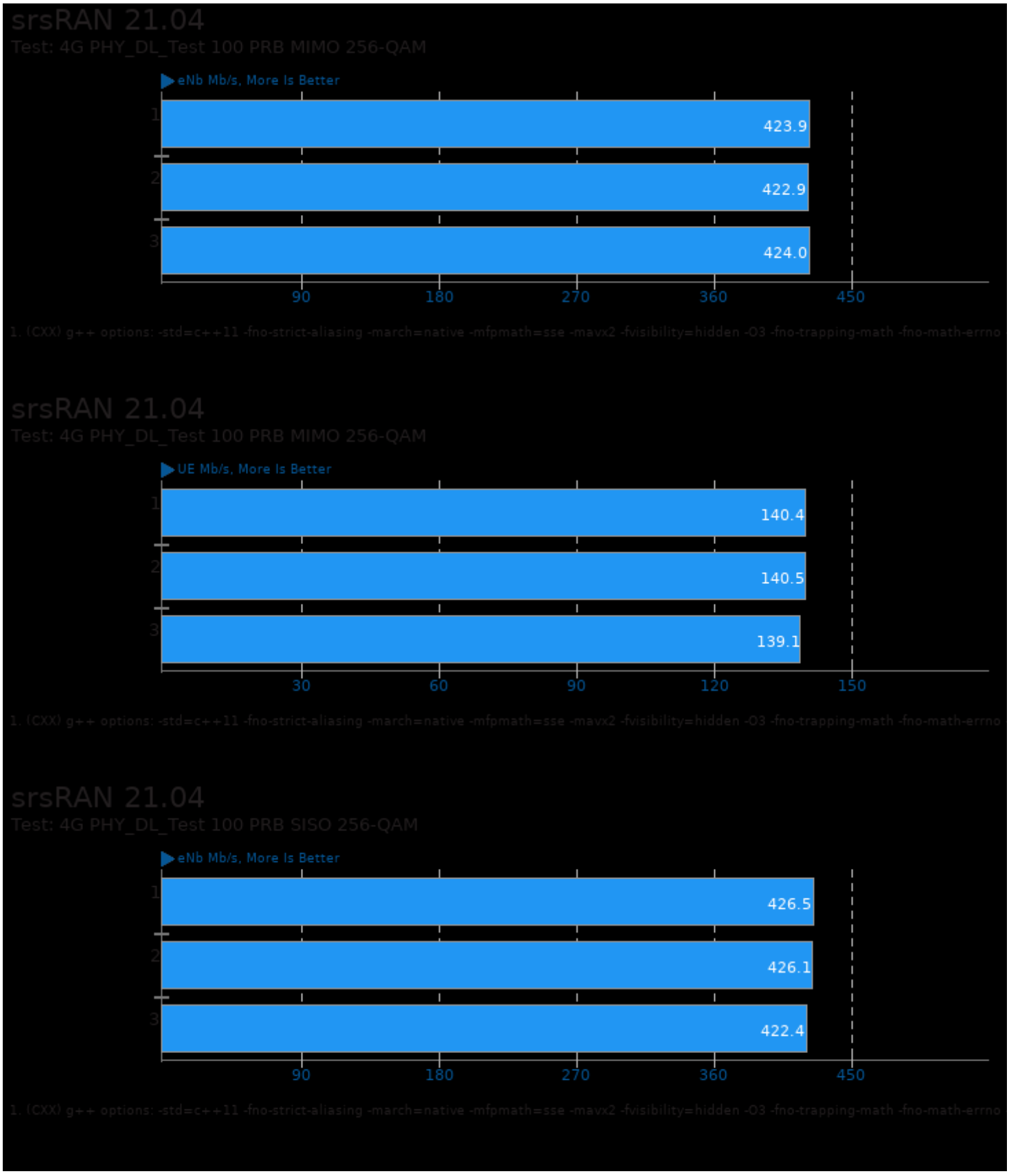
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM

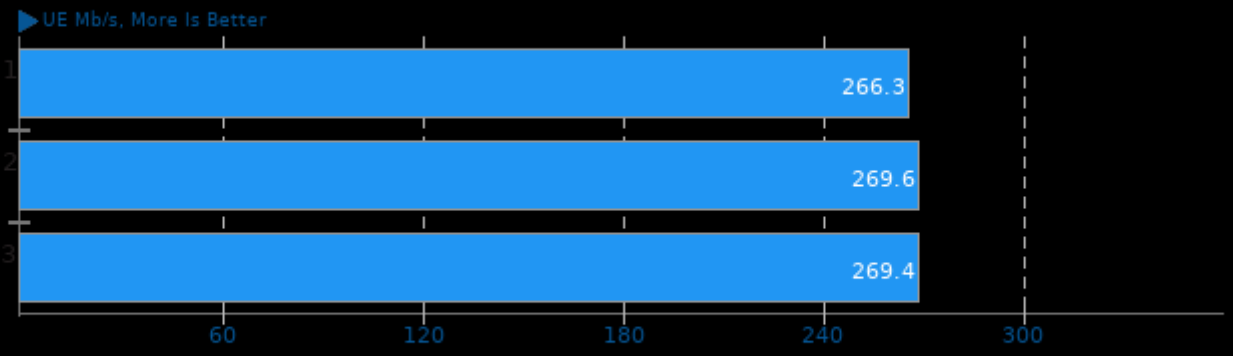


1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno


srsRAN 21.04
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
eNb Mb/s, More Is Better
1
2
3
423.9
422.9
424.0
90
180
270
360
450
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.04
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
UE Mb/s, More Is Better
1
2
3
140.4
140.5
139.1
30
60
90
120
150
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 21.04
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM
eNb Mb/s, More Is Better
1
2
3
426.5
426.1
422.4
90
180
270
360
450
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

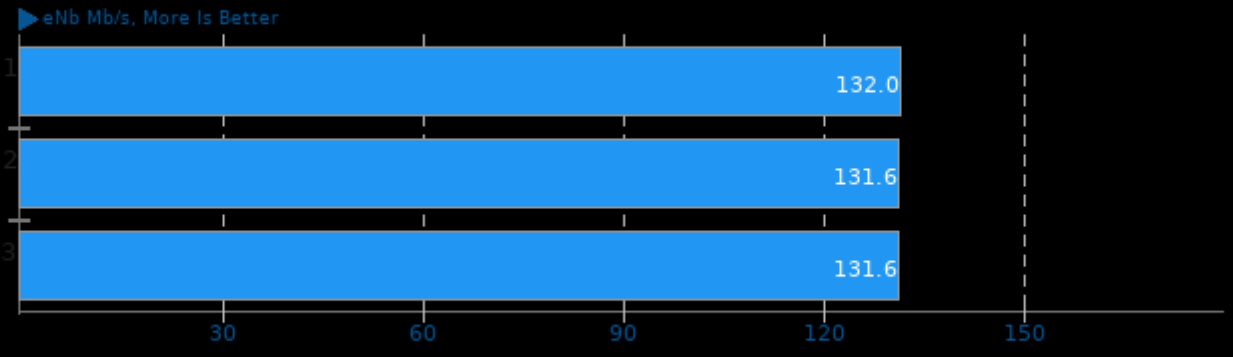
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

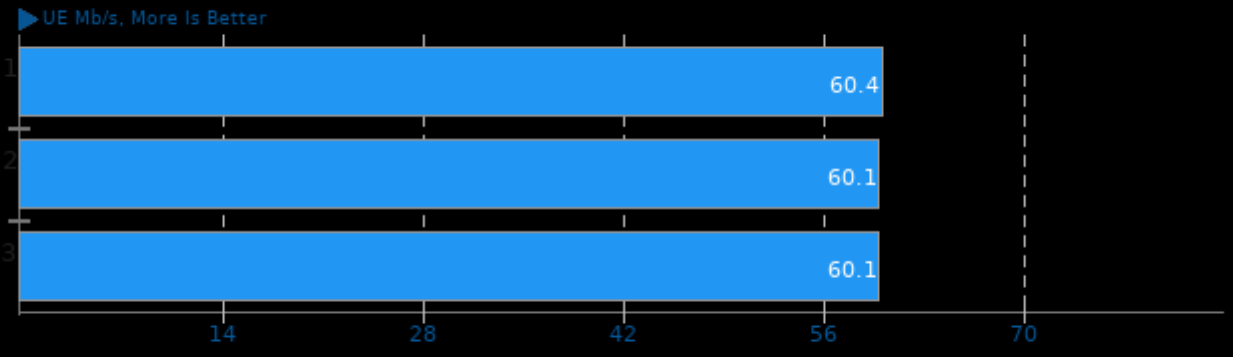
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

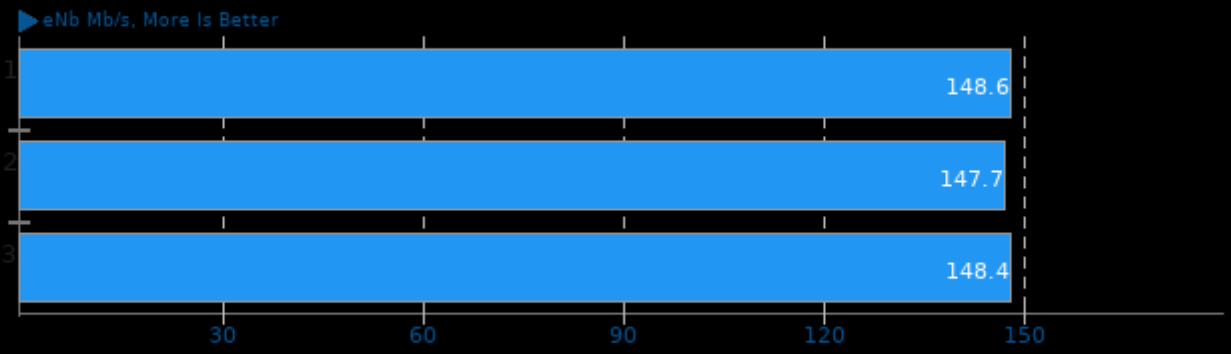
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

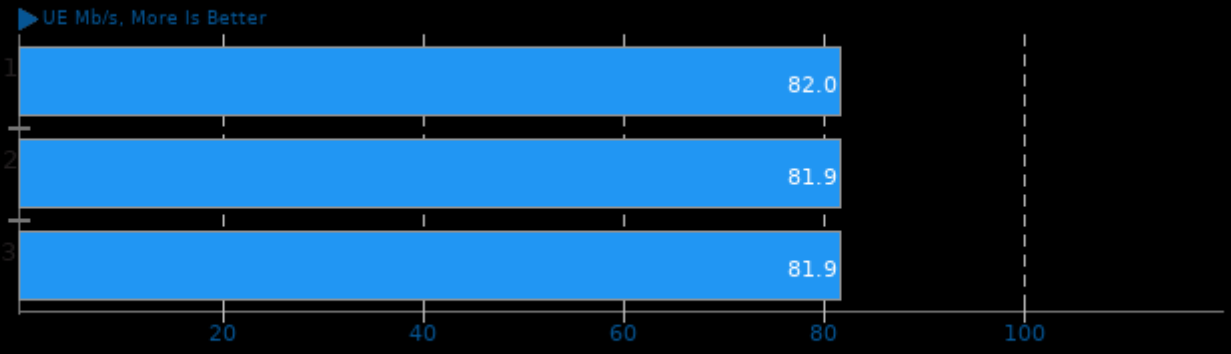
Test: 5G PHY_DL_NR Test 270 PRB SISO 256-QAM



1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

srsRAN 21.04

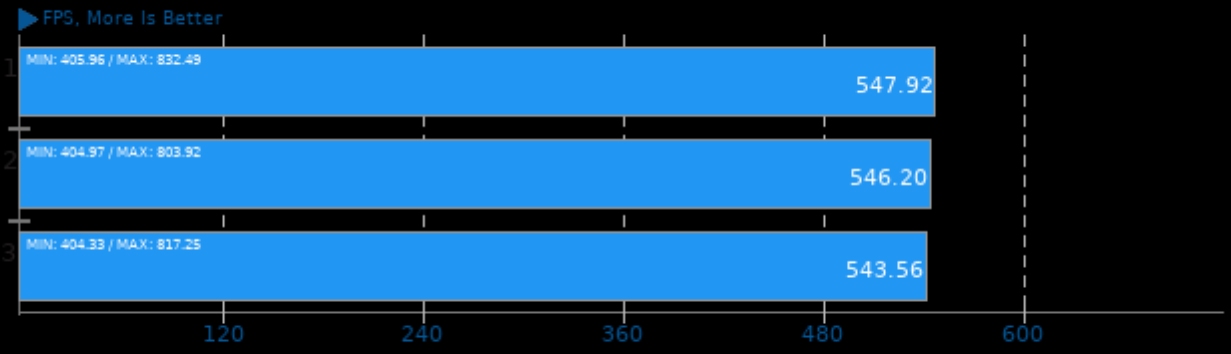
Test: 5G PHY_DL_NR Test 270 PRB SISO 256-QAM



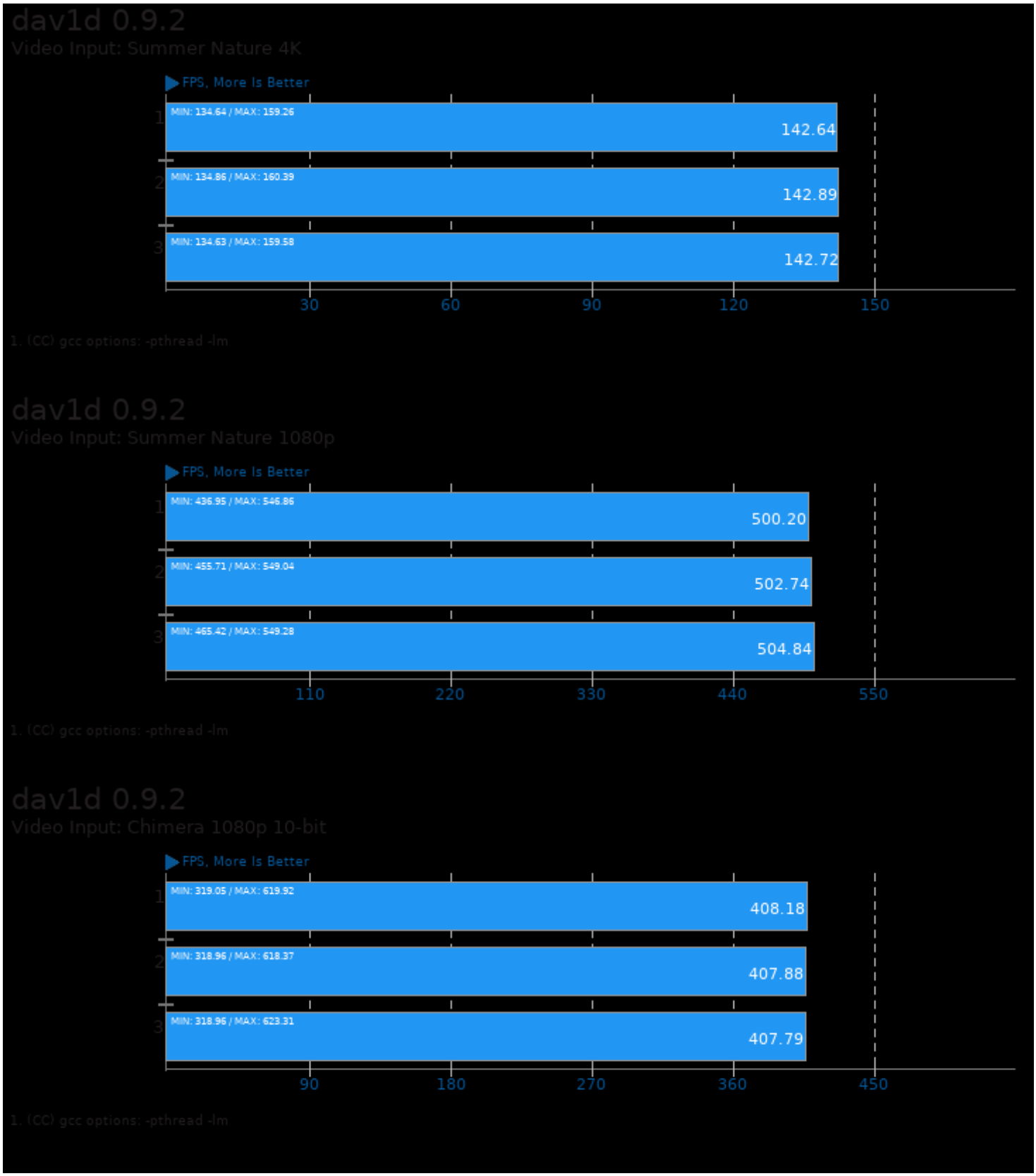
1. (CXX) g++ options: -std=c++11 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

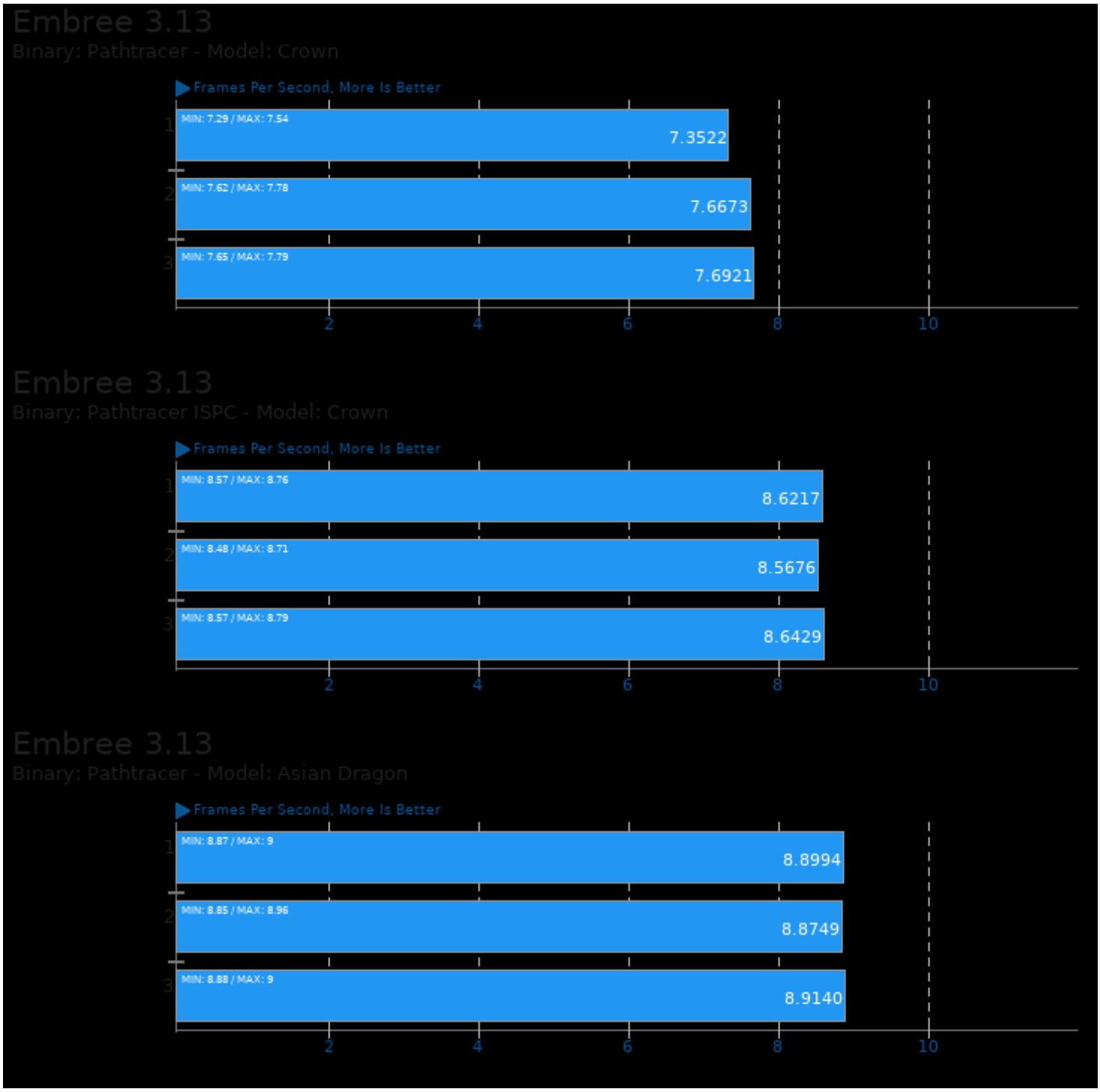
dav1d 0.9.2

Video Input: Chimera 1080p

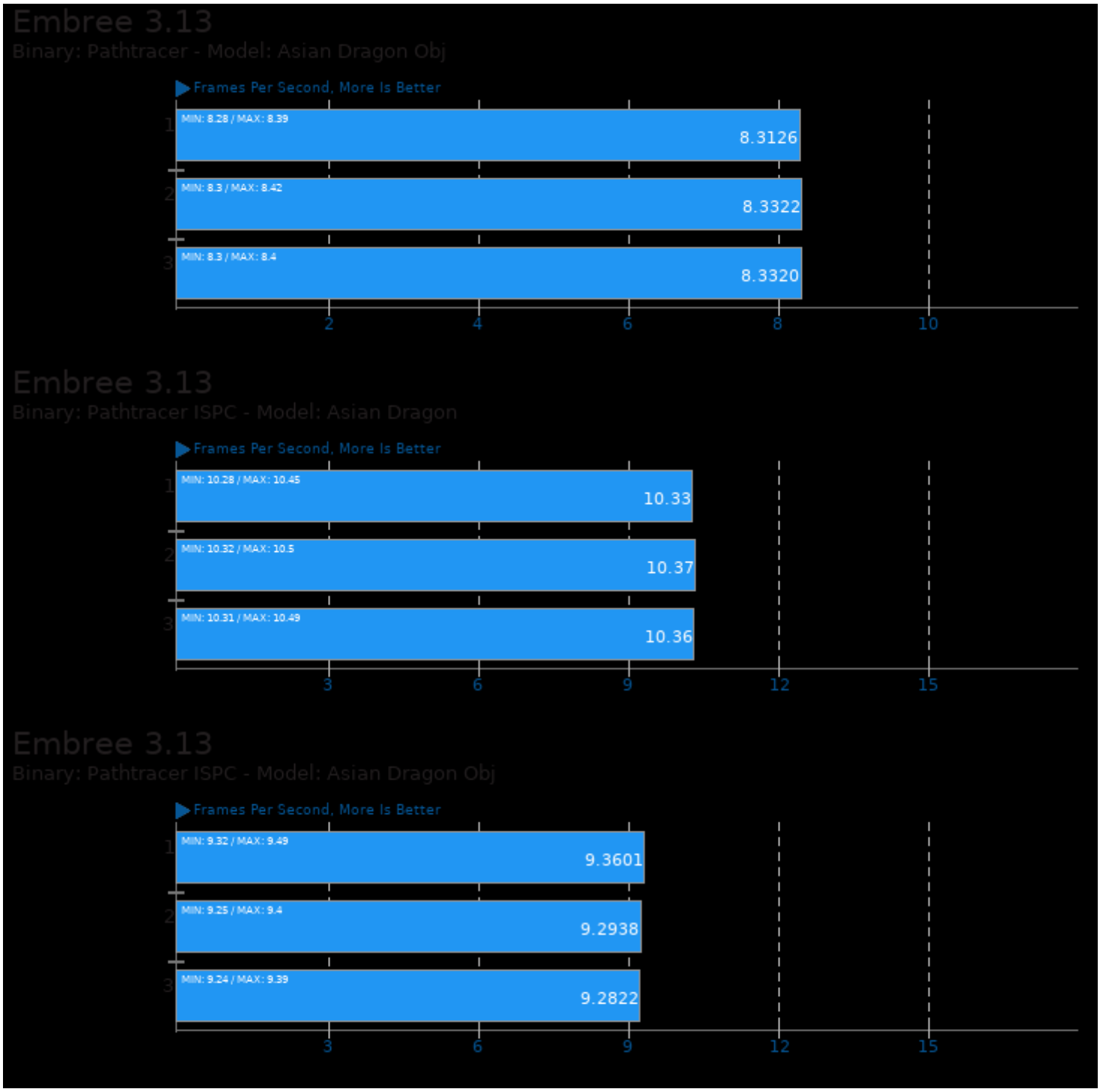


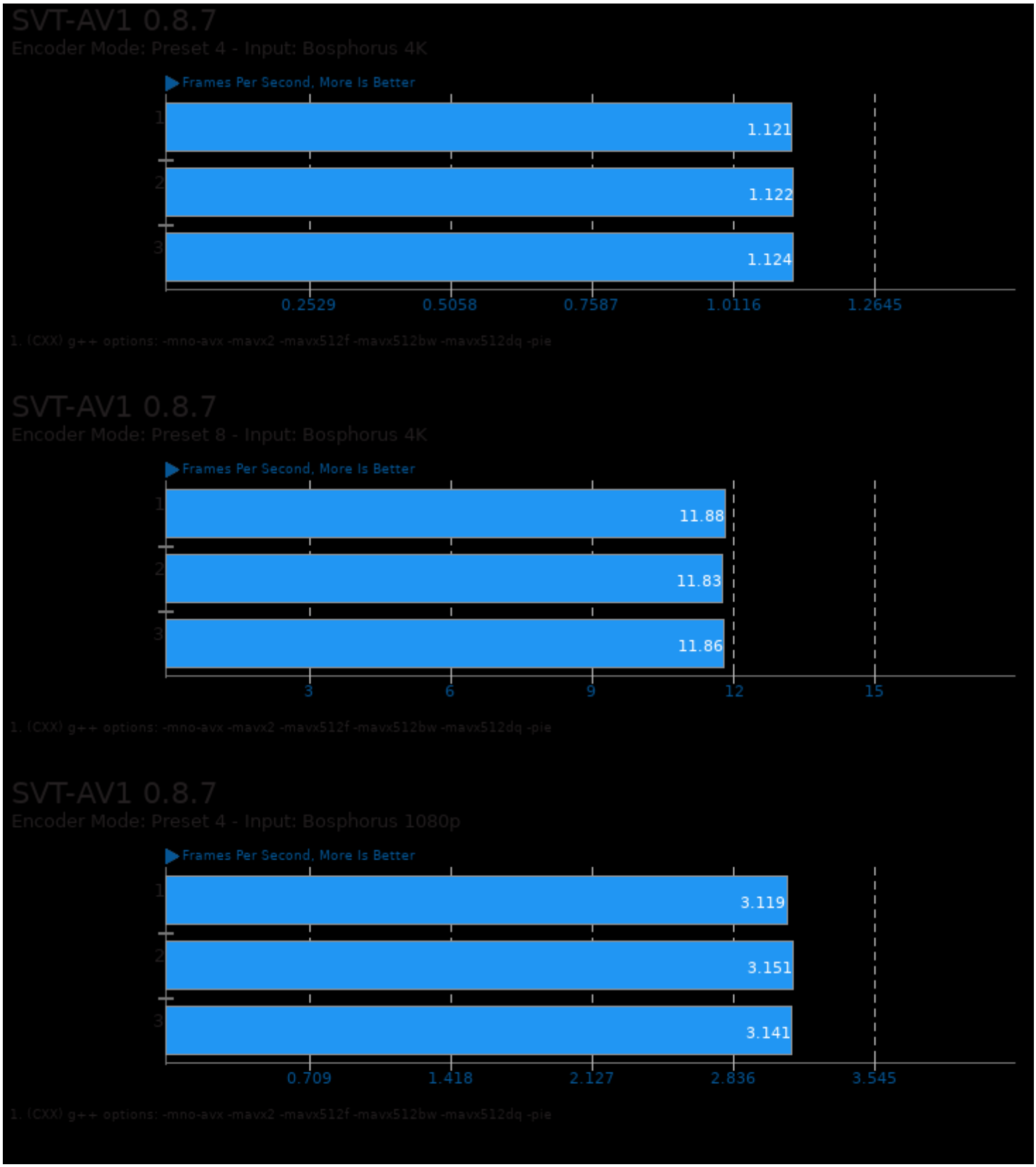
1. (CC) gcc options: -pthread -lm


dav1d 0.9.2
Video Input: Summer Nature 4K
FPS, More Is Better
1
MIN: 134.64 / MAX: 159.26
142.64
2
MIN: 134.86 / MAX: 160.39
142.89
3
MIN: 134.63 / MAX: 159.58
142.72
30
60
90
120
150
1. (CC) gcc options: -pthread -lm
dav1d 0.9.2
Video Input: Summer Nature 1080p
FPS, More Is Better
1
MIN: 436.95 / MAX: 546.86
500.20
2
MIN: 455.71 / MAX: 549.04
502.74
3
MIN: 465.42 / MAX: 549.28
504.84
110
220
330
440
550
1. (CC) gcc options: -pthread -lm
dav1d 0.9.2
Video Input: Chimera 1080p 10-bit
FPS, More Is Better
1
MIN: 319.05 / MAX: 619.92
408.18
2
MIN: 318.96 / MAX: 618.37
407.88
3
MIN: 318.96 / MAX: 623.31
407.79
90
180
270
360
450
1. (CC) gcc options: -pthread -lm


Embree 3.13
Binary: Pathtracer - Model: Crown
Frames Per Second, More Is Better
1
MIN: 7.29 / MAX: 7.54
7.3522
2
MIN: 7.62 / MAX: 7.78
7.6673
3
MIN: 7.65 / MAX: 7.79
7.6921
2
4
6
8
10
Embree 3.13
Binary: Pathtracer ISPC - Model: Crown
Frames Per Second, More Is Better
1
MIN: 8.57 / MAX: 8.76
8.6217
2
MIN: 8.48 / MAX: 8.71
8.5676
3
MIN: 8.57 / MAX: 8.79
8.6429
2
4
6
8
10
Embree 3.13
Binary: Pathtracer - Model: Asian Dragon
Frames Per Second, More Is Better
1
MIN: 8.87 / MAX: 9
8.8994
2
MIN: 8.85 / MAX: 8.96
8.8749
3
MIN: 8.88 / MAX: 9
8.9140
2
4
6
8
10

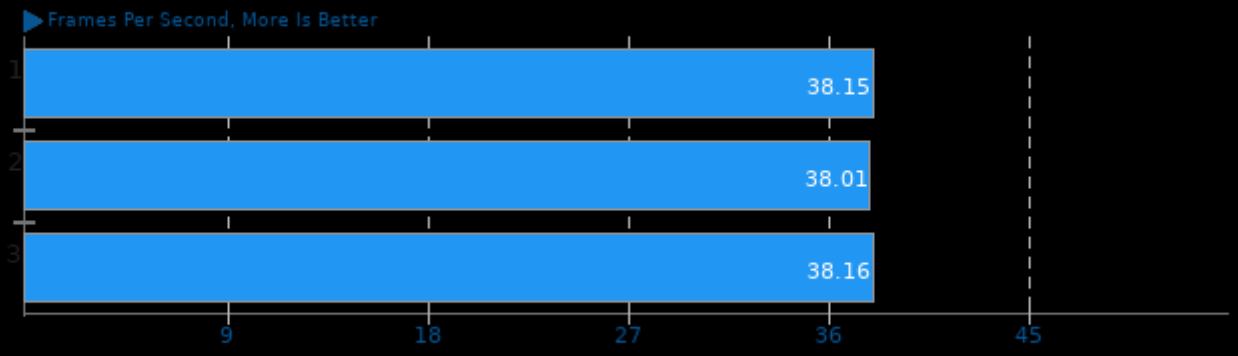
8700k september




SVT-AV1 0.8.7
Encoder Mode: Preset 4 - Input: Bosphorus 4K
Frames Per Second, More Is Better
1
2
3
1.121
1.122
1.124
0.2529
0.5058
0.7587
1.0116
1.2645
1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie
SVT-AV1 0.8.7
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
1
2
3
11.88
11.83
11.86
3
6
9
12
15
1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie
SVT-AV1 0.8.7
Encoder Mode: Preset 4 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
1
2
3
3.119
3.151
3.141
0.709
1.418
2.127
2.836
3.545
1. (CXX) g++ options: -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq -pie

SVT-AV1 0.8.7

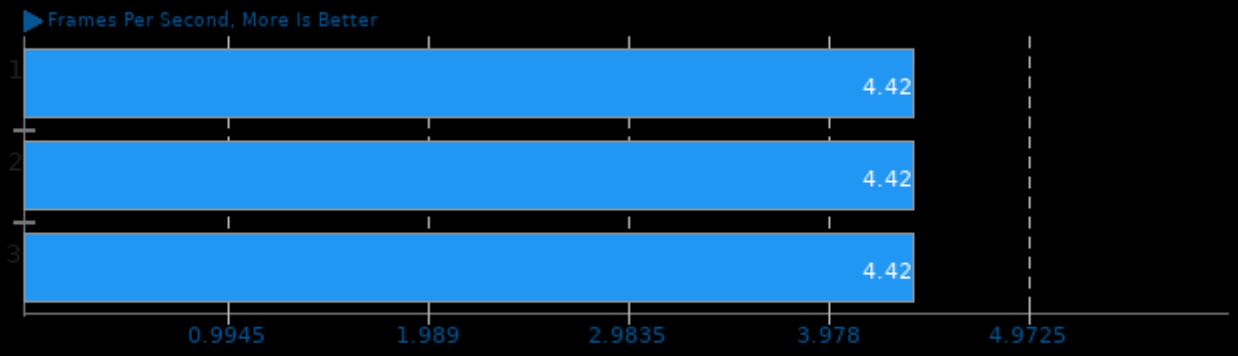
Encoder Mode: Preset 8 - Input: Bosphorus 1080p



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

VP9 libvpx Encoding 1.10.0

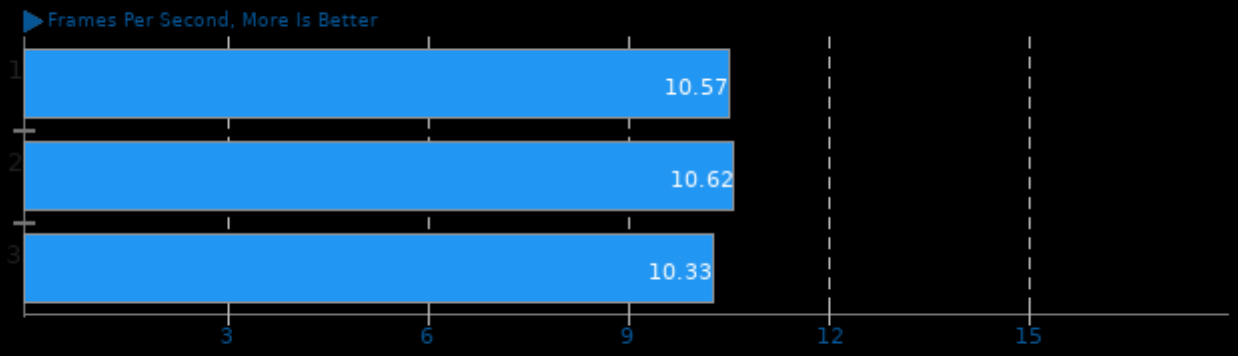
Speed: Speed 0 - Input: Bosphorus 4K



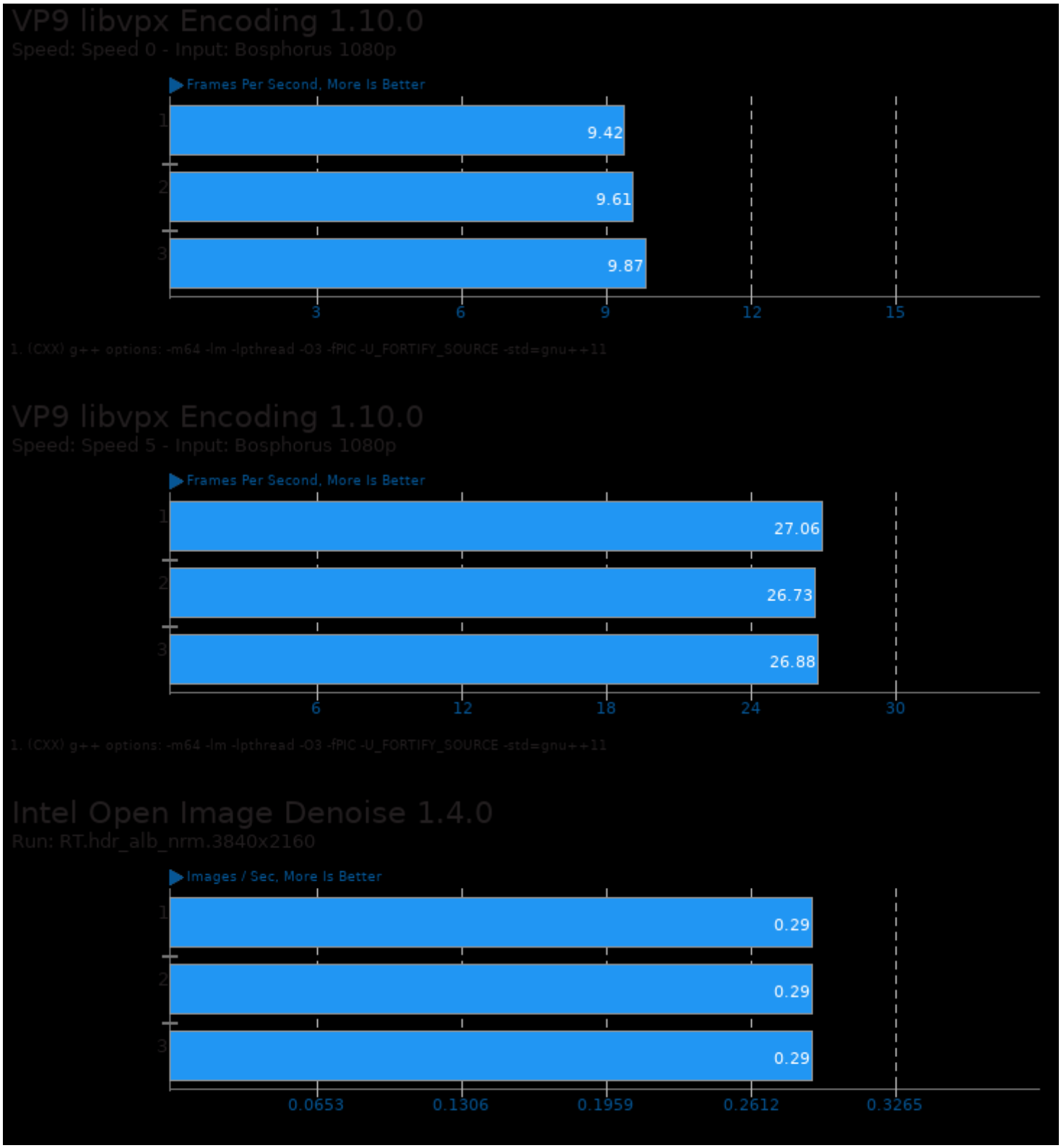
1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

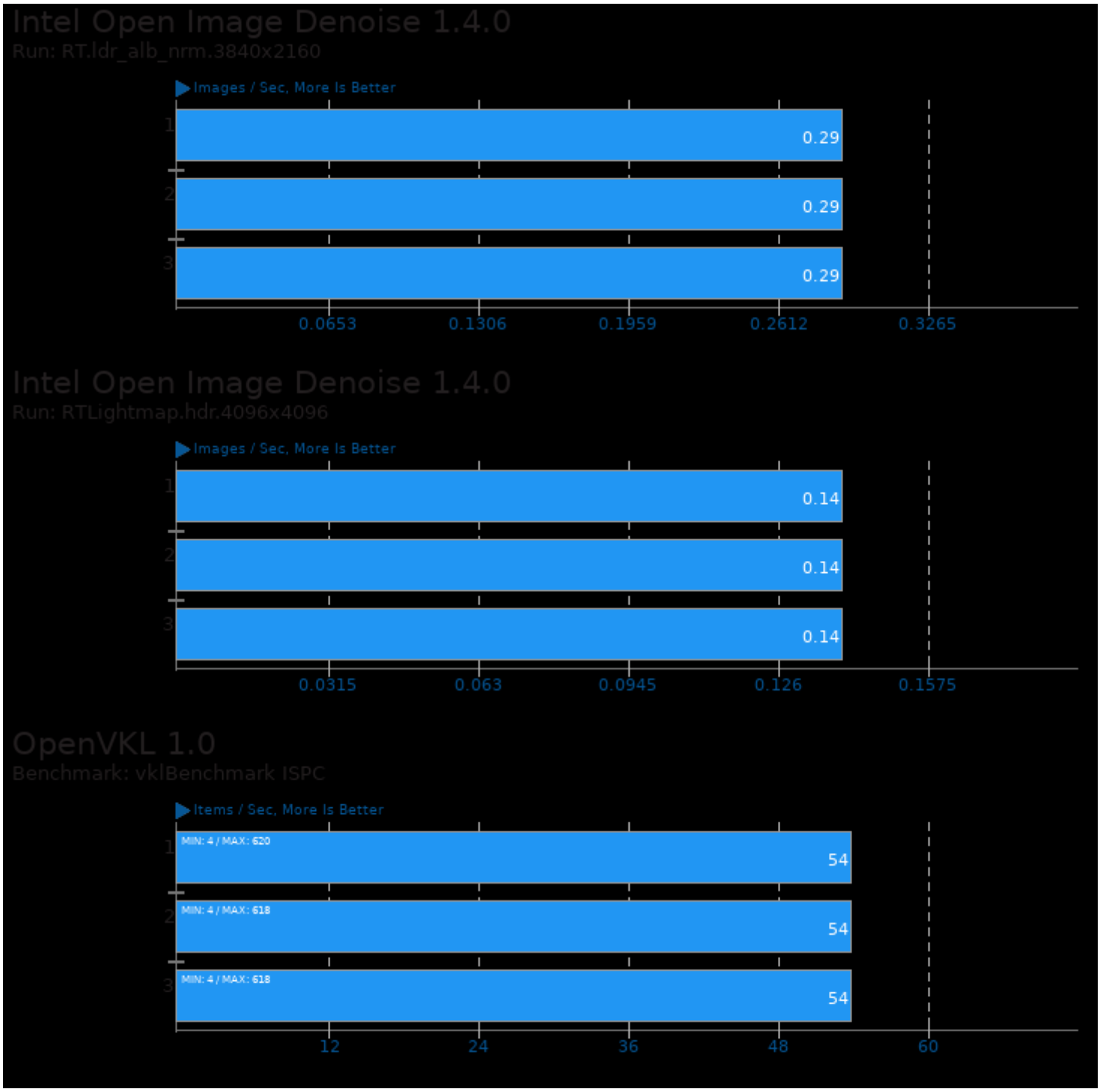
VP9 libvpx Encoding 1.10.0

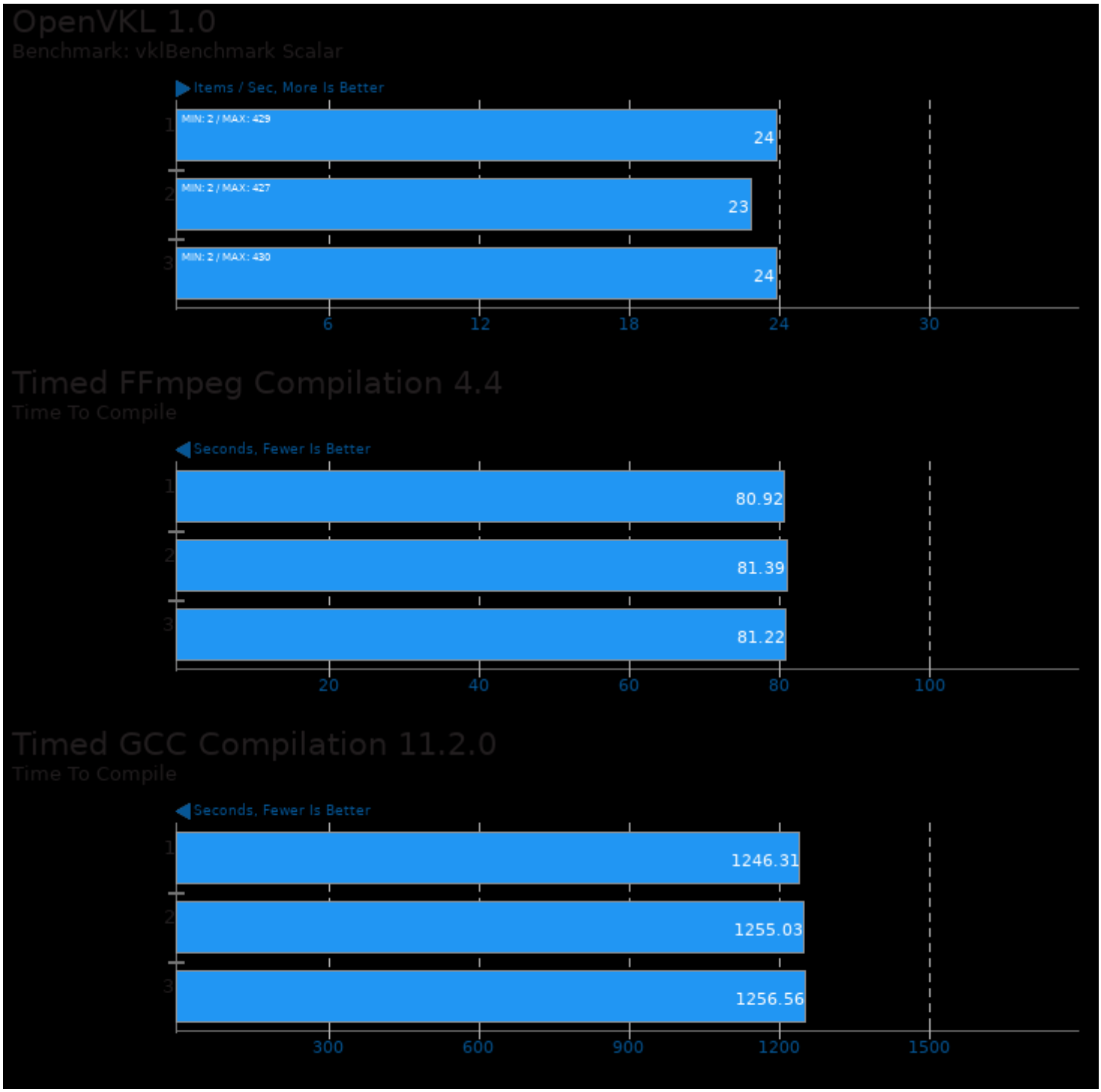
Speed: Speed 5 - Input: Bosphorus 4K



1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11

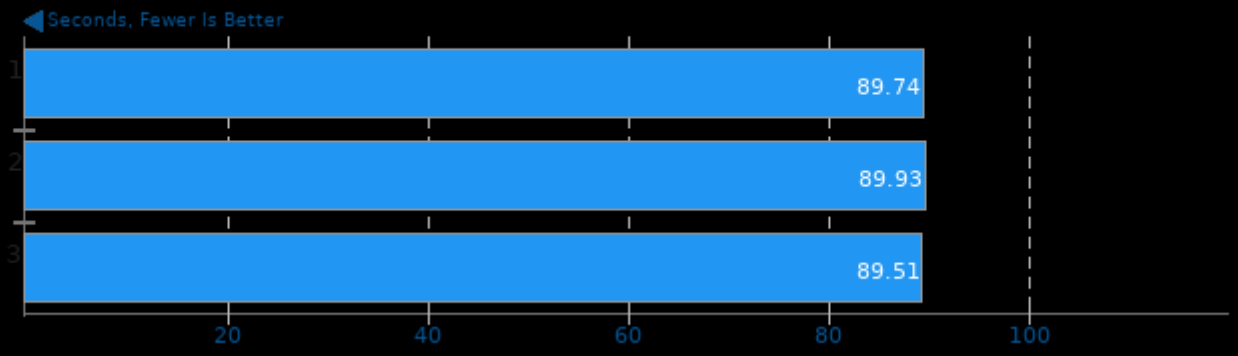

VP9 libvpx Encoding 1.10.0
Speed: Speed 0 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
1
2
3
9.42
9.61
9.87
3
6
9
12
15
1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11
VP9 libvpx Encoding 1.10.0
Speed: Speed 5 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
1
2
3
27.06
26.73
26.88
6
12
18
24
30
1. (CXX) g++ options: -m64 -lm -lpthread -O3 -fPIC -U_FORTIFY_SOURCE -std=gnu++11
Intel Open Image Denoise 1.4.0
Run: RT.hdr_alb_nrm.3840x2160
Images / Sec, More Is Better
1
2
3
0.29
0.29
0.29
0.0653
0.1306
0.1959
0.2612
0.3265


Intel Open Image Denoise 1.4.0
Run: RT.ldr_alb_nrm.3840x2160
Images / Sec, More Is Better
1
2
3
0.29
0.29
0.29
0.0653
0.1306
0.1959
0.2612
0.3265
Intel Open Image Denoise 1.4.0
Run: RTLightmap.hdr.4096x4096
Images / Sec, More Is Better
1
2
3
0.14
0.14
0.14
0.0315
0.063
0.0945
0.126
0.1575
OpenVKL 1.0
Benchmark: vklBenchmark ISPC
Items / Sec, More Is Better
1
2
3
MIN: 4 / MAX: 620
MIN: 4 / MAX: 618
MIN: 4 / MAX: 618
54
54
54
12
24
36
48
60


OpenVKL 1.0
Benchmark: vklBenchmark Scalar
Items / Sec, More Is Better
1
MIN: 2 / MAX: 429
24
2
MIN: 2 / MAX: 427
23
3
MIN: 2 / MAX: 430
24
6
12
18
24
30
Timed FFmpeg Compilation 4.4
Time To Compile
Seconds, Fewer Is Better
1
80.92
2
81.39
3
81.22
20
40
60
80
100
Timed GCC Compilation 11.2.0
Time To Compile
Seconds, Fewer Is Better
1
1246.31
2
1255.03
3
1256.56
300
600
900
1200
1500

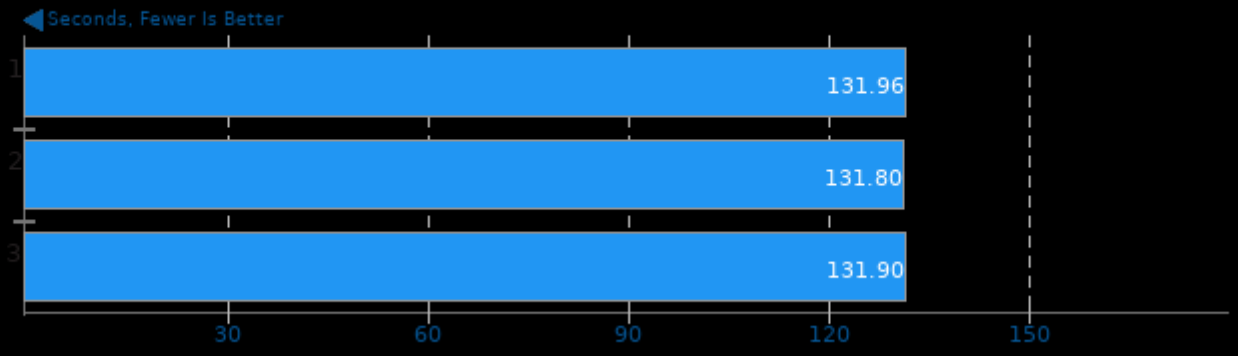
Timed GDB GNU Debugger Compilation 10.2

Time To Compile



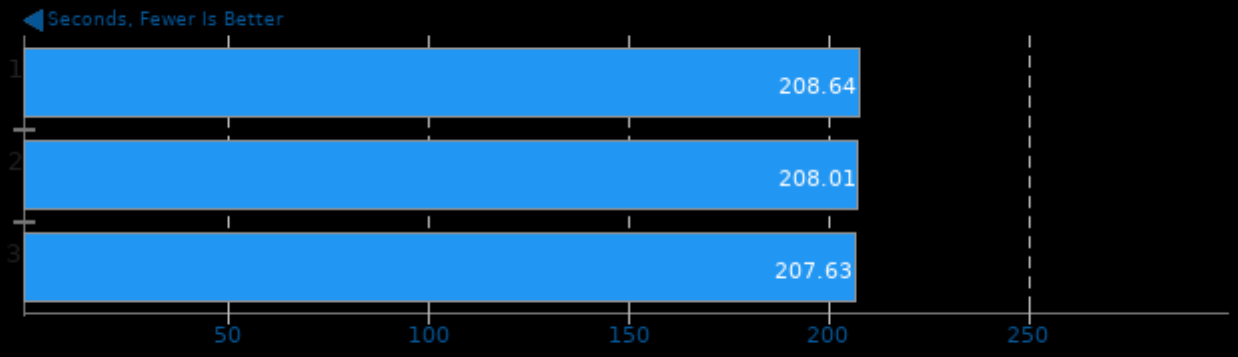
Timed Linux Kernel Compilation 5.14

Time To Compile



YafaRay 3.5.1

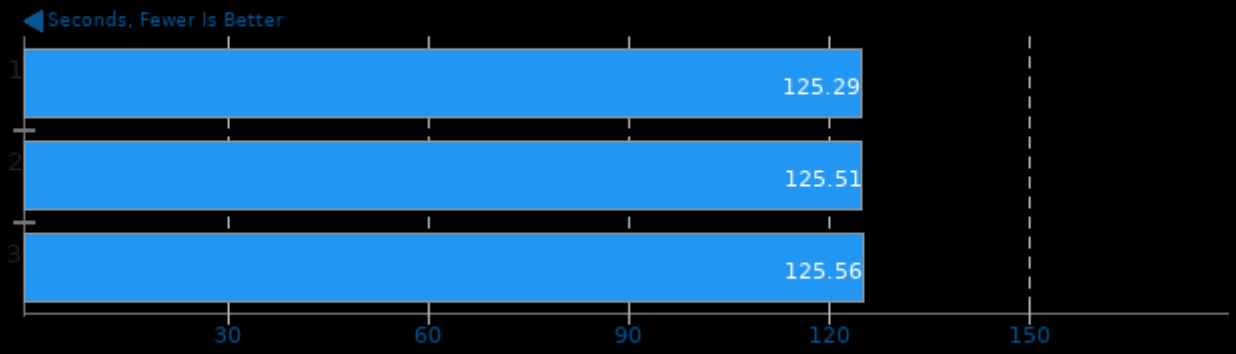
Total Time For Sample Scene



1. (CXX) g++ options: -std=c++11 -pthread -O3 -ffast-math -rdynamic -ldl -lImath -lIlmImf -lIex -lHalf -lz -lIlmThread -lxml2 -lfreetype

Tachyon 0.99b6

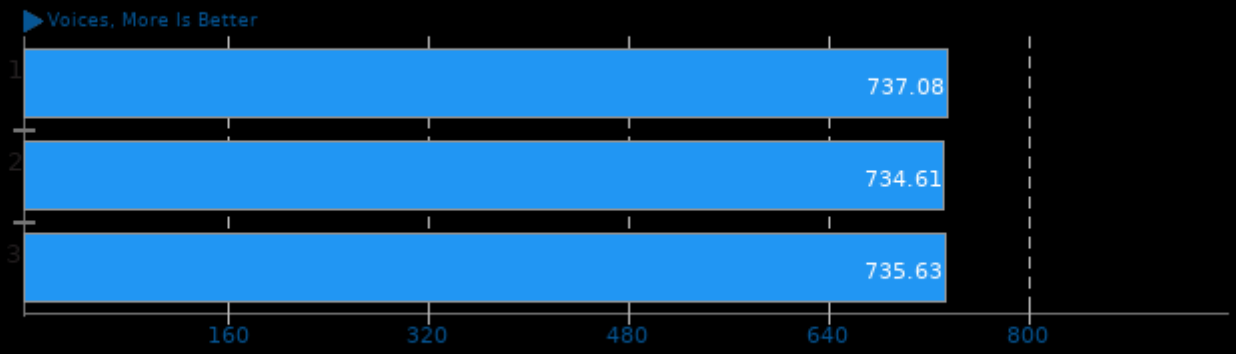
Total Time



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

Google SynthMark 20201109

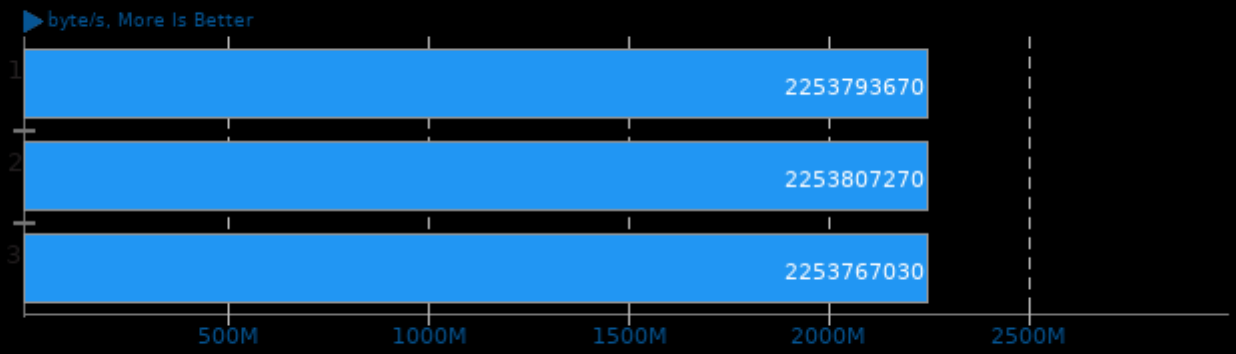
Test: VoiceMark_100



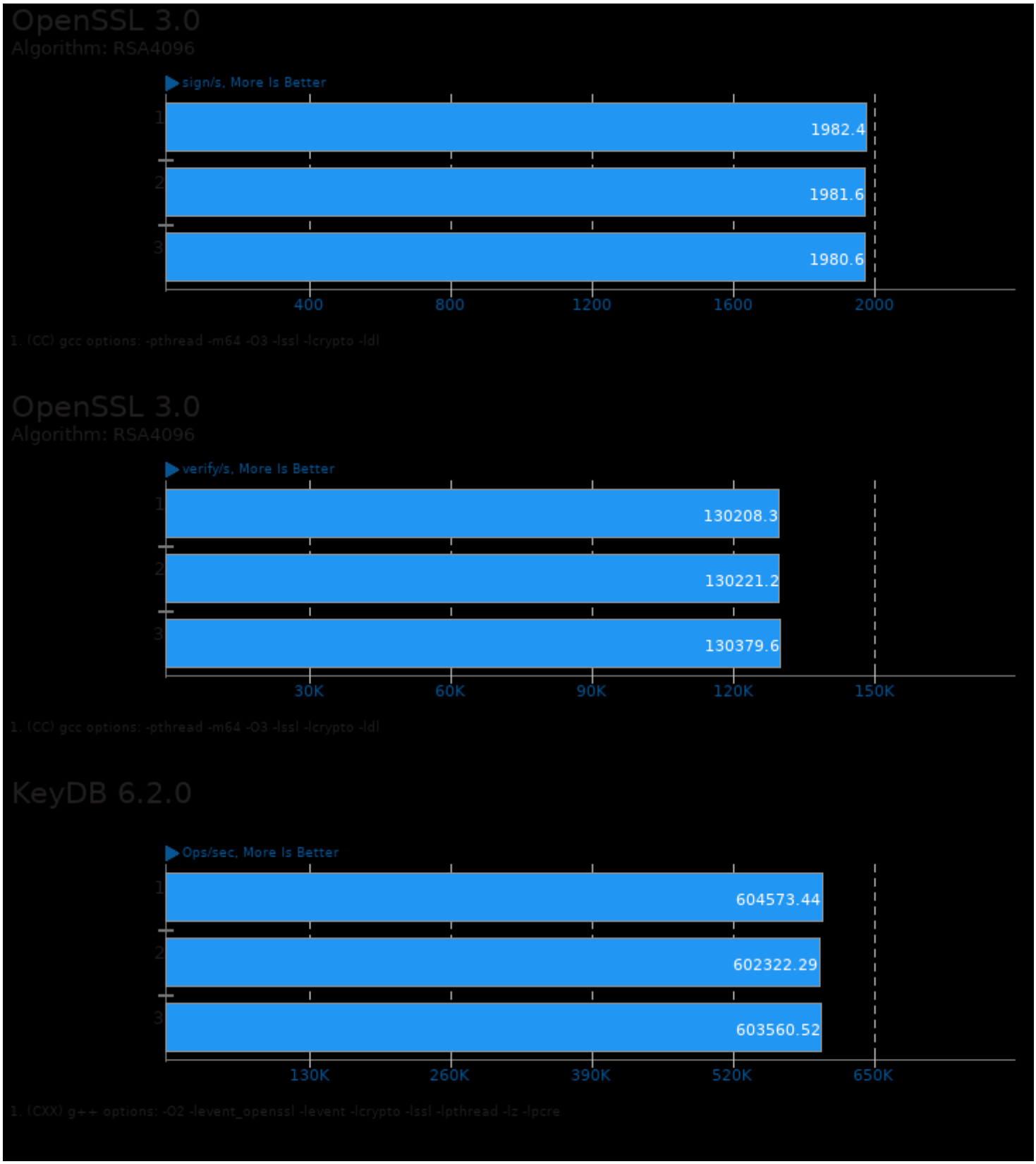
1. (CXX) g++ options: -lm -lpthread -std=c++11 -Ofast

OpenSSL 3.0

Algorithm: SHA256

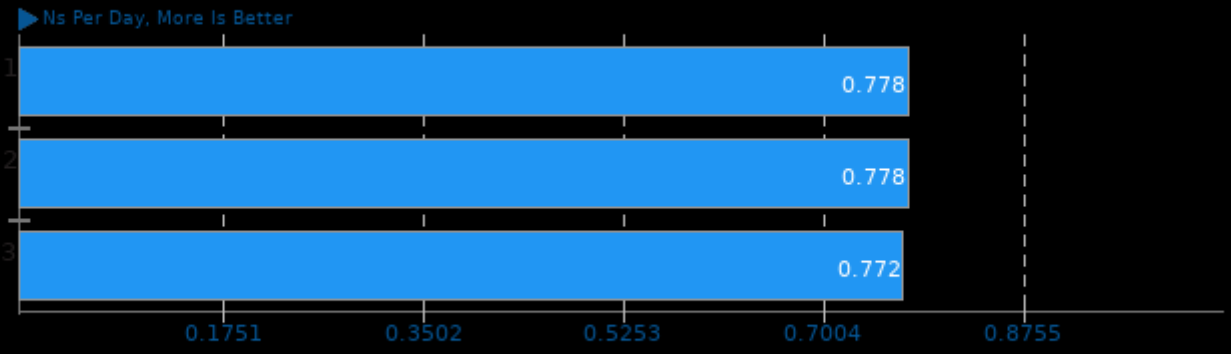


1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl


OpenSSL 3.0
Algorithm: RSA4096
sign/s, More Is Better
1982.4
1981.6
1980.6
400
800
1200
1600
2000
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
OpenSSL 3.0
Algorithm: RSA4096
verify/s, More Is Better
130208.3
130221.2
130379.6
30K
60K
90K
120K
150K
1. (CC) gcc options: -pthread -m64 -O3 -lssl -lcrypto -ldl
KeyDB 6.2.0
Ops/sec, More Is Better
604573.44
602322.29
603560.52
130K
260K
390K
520K
650K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

GROMACS 2021.2

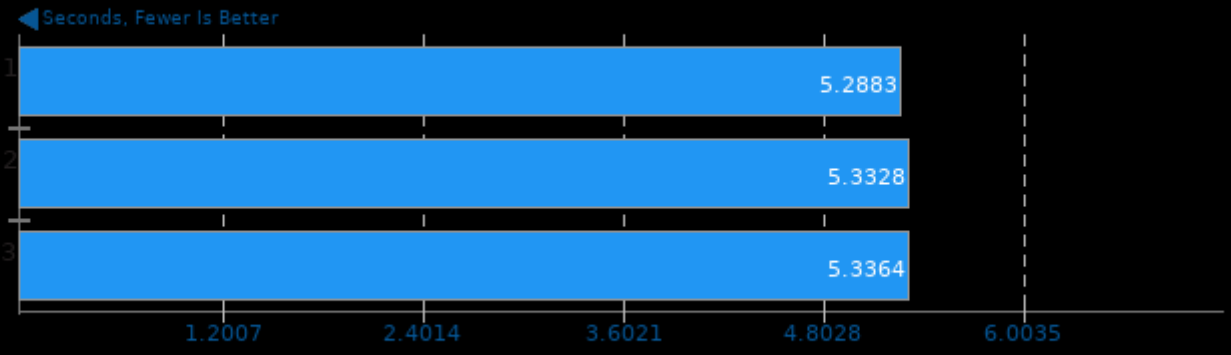
Implementation: MPI CPU - Input: water_GMX50_bare



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

ASTC Encoder 3.0

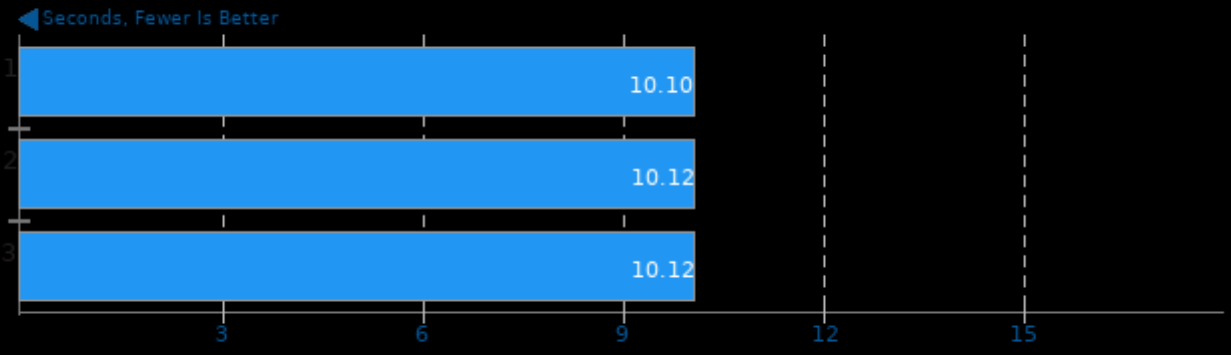
Preset: Medium



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

ASTC Encoder 3.0

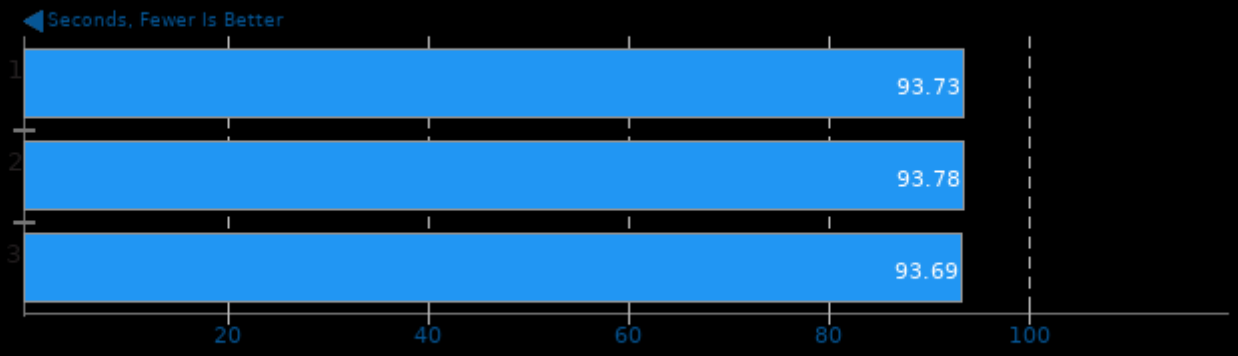
Preset: Thorough



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

ASTC Encoder 3.0

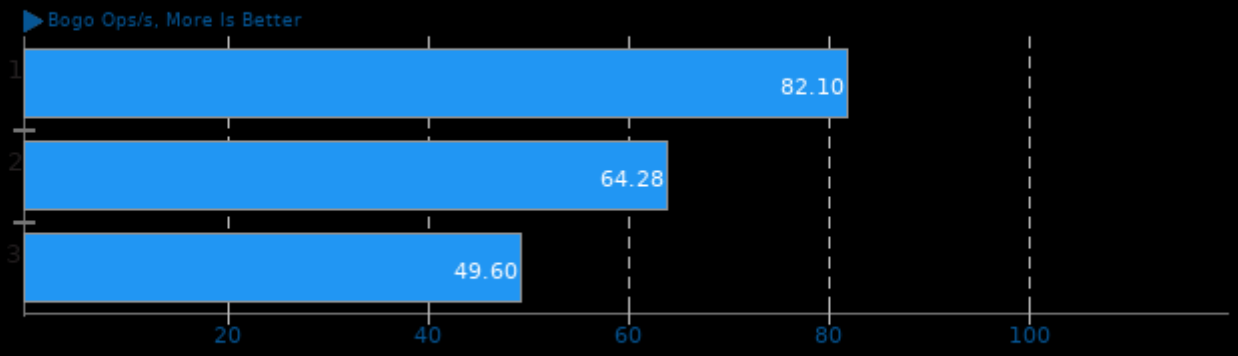
Preset: Exhaustive



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

Stress-NG 0.13.02

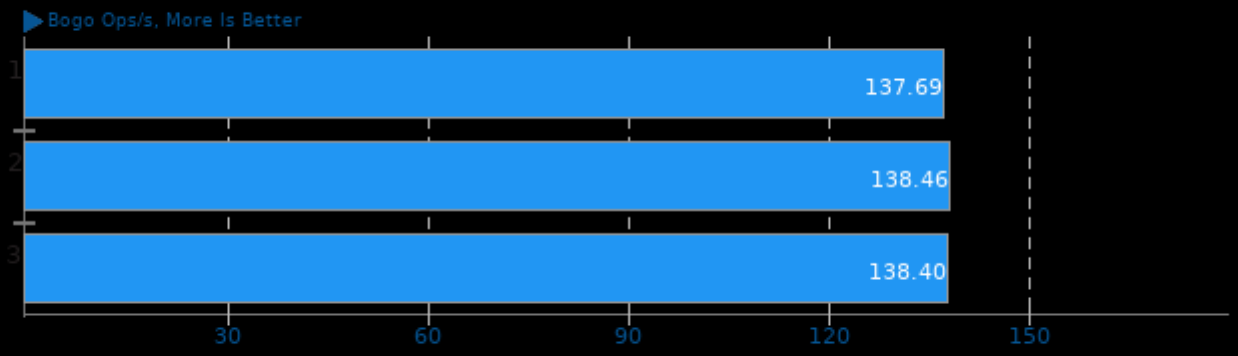
Test: MMAP



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

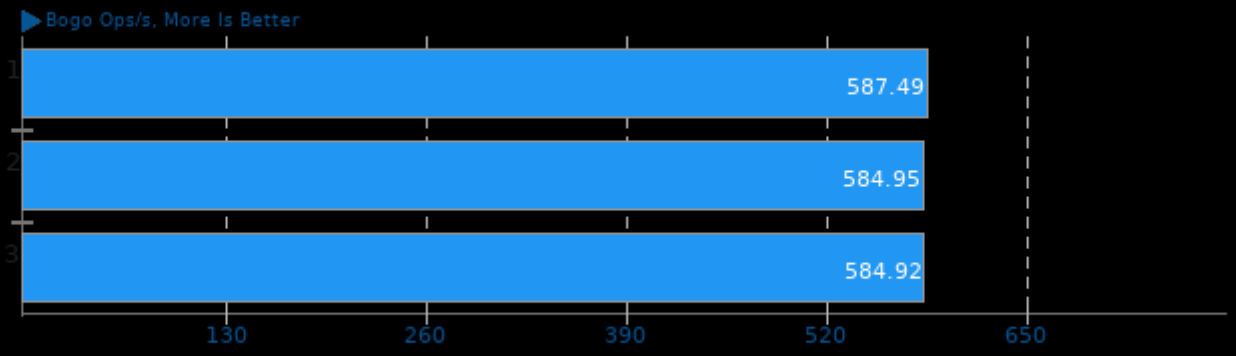
Test: NUMA



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

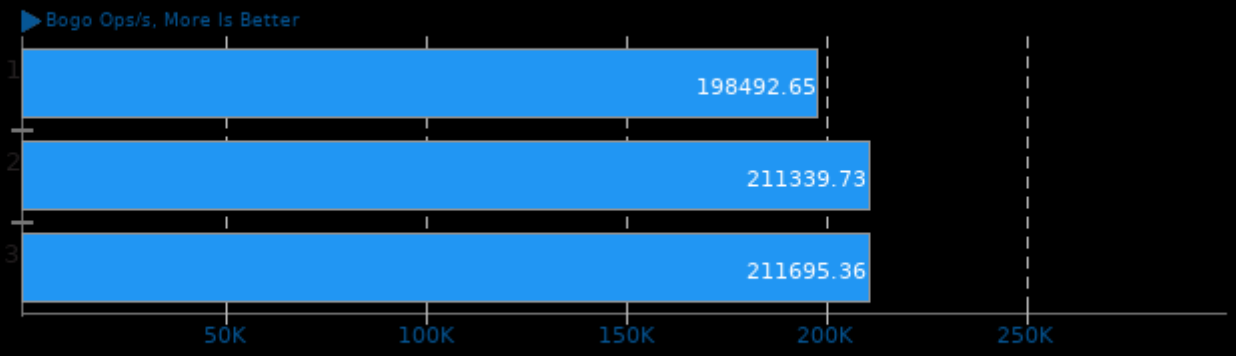
Test: MEMFD



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

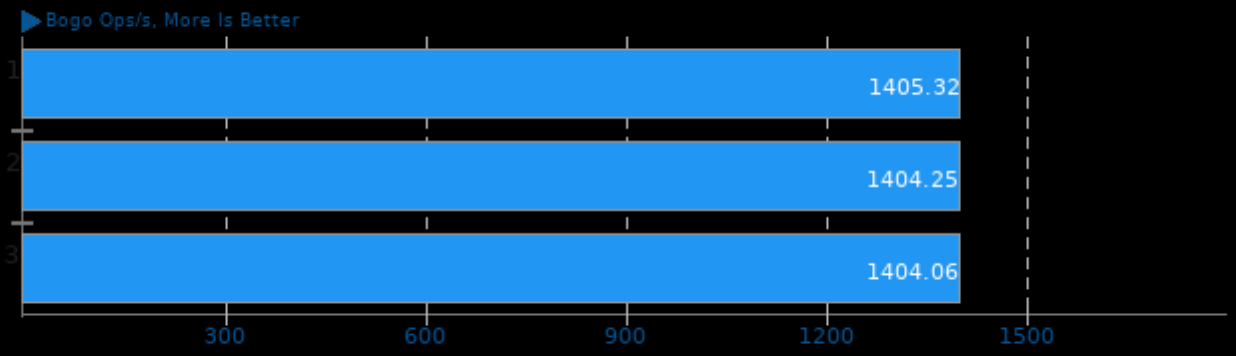
Test: Atomic



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

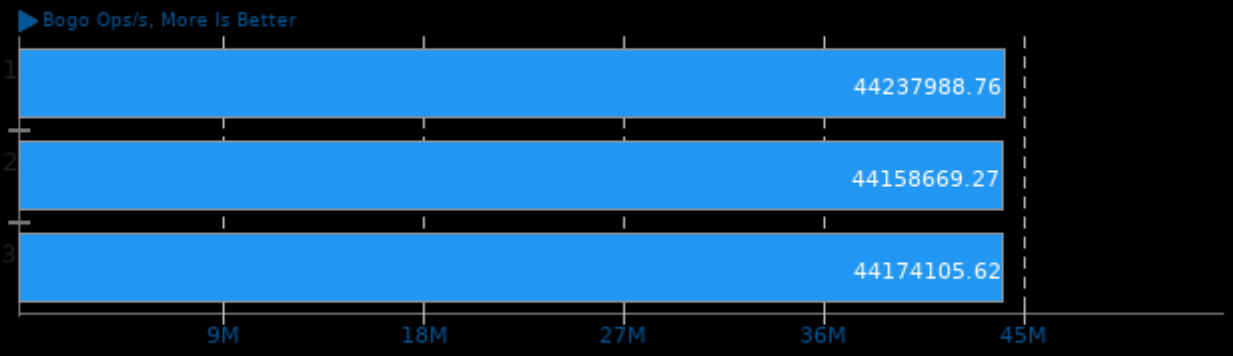
Test: Crypto



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

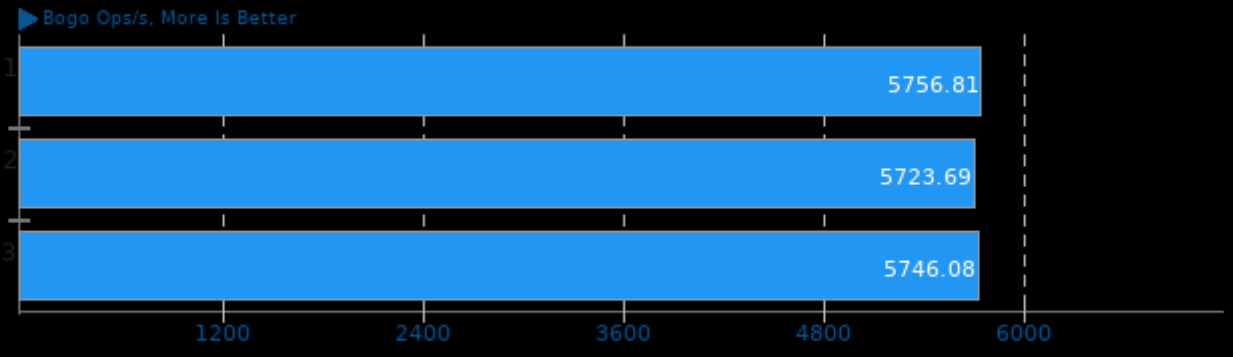
Test: Malloc



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

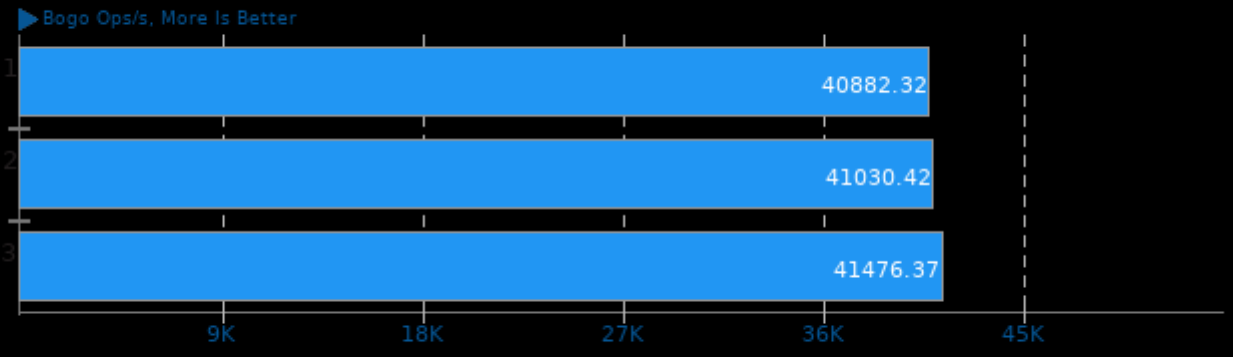
Test: RdRand



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

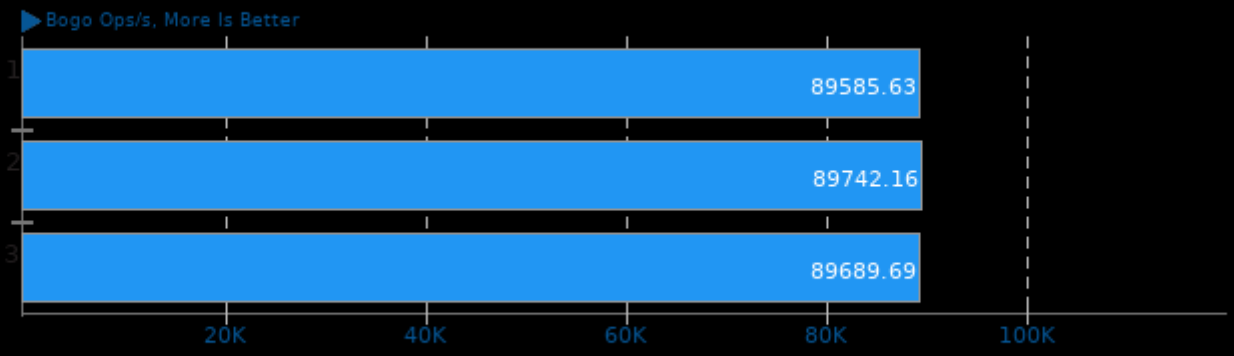
Test: Forking



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

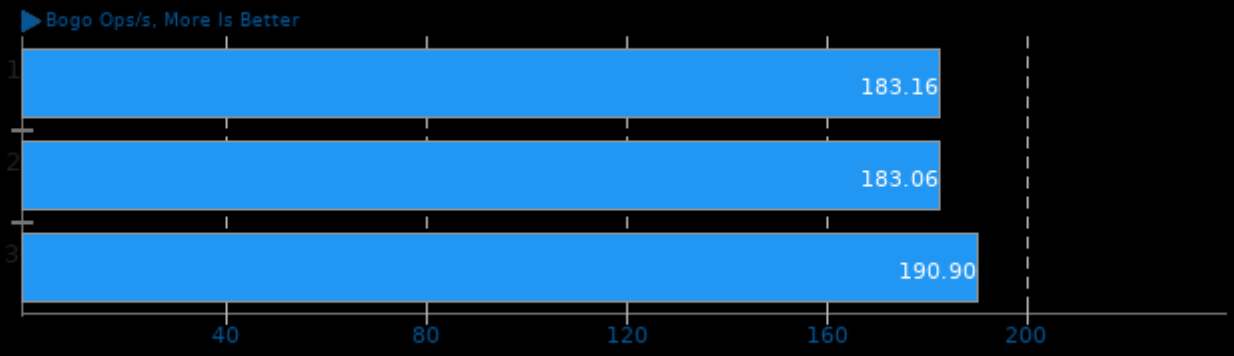
Test: SENDFILE



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

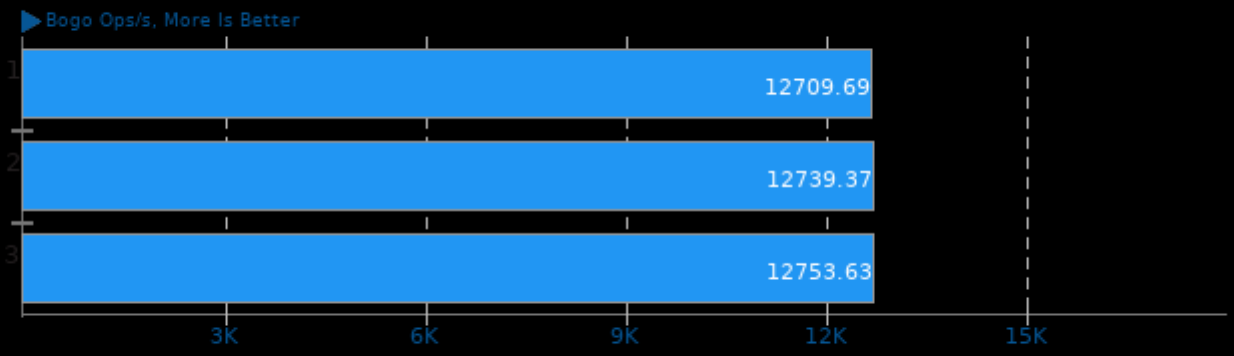
Test: CPU Cache



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

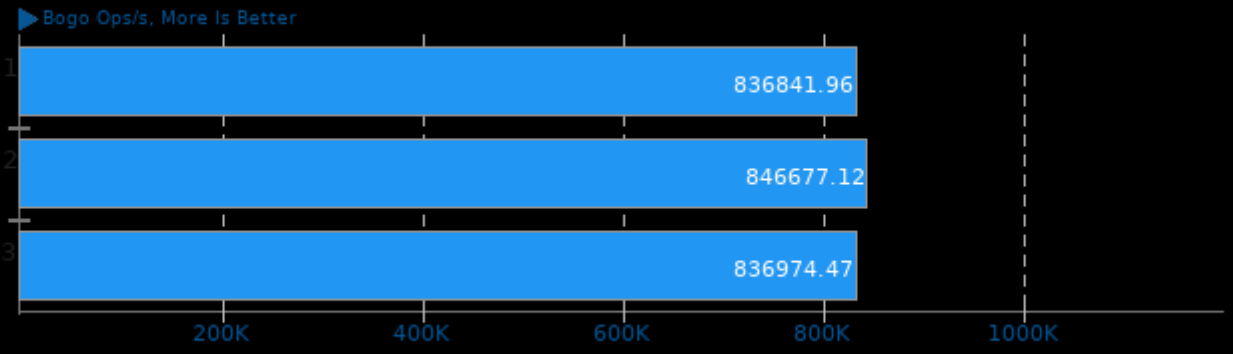
Test: CPU Stress



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

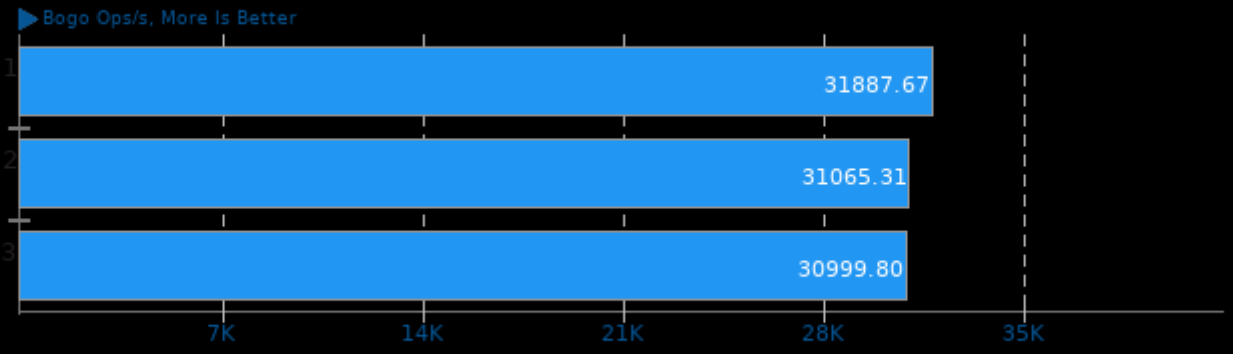
Test: Semaphores



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

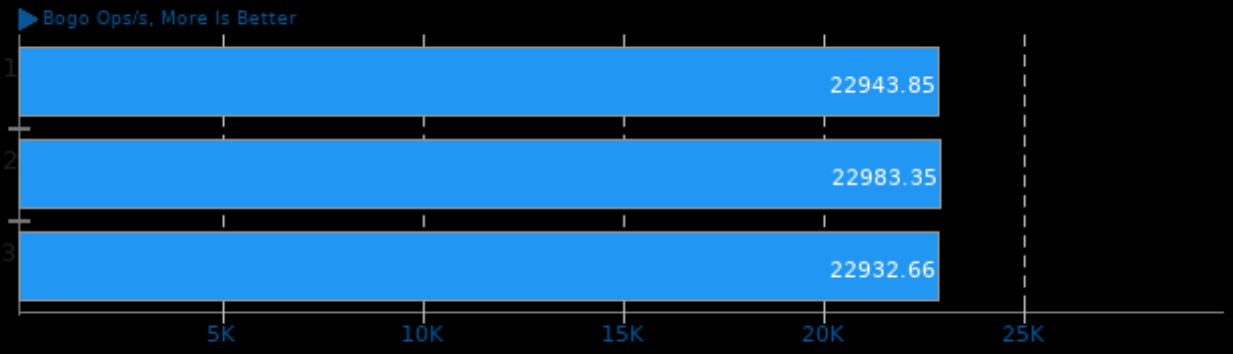
Test: Matrix Math



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

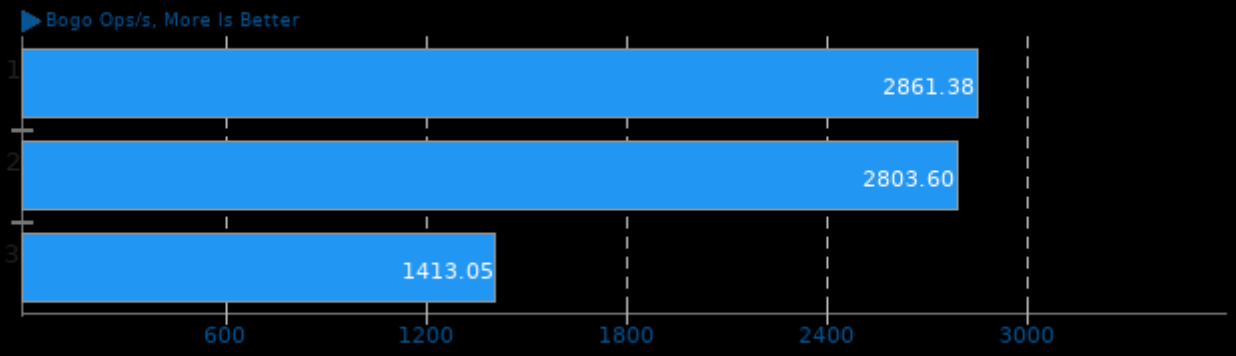
Test: Vector Math



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

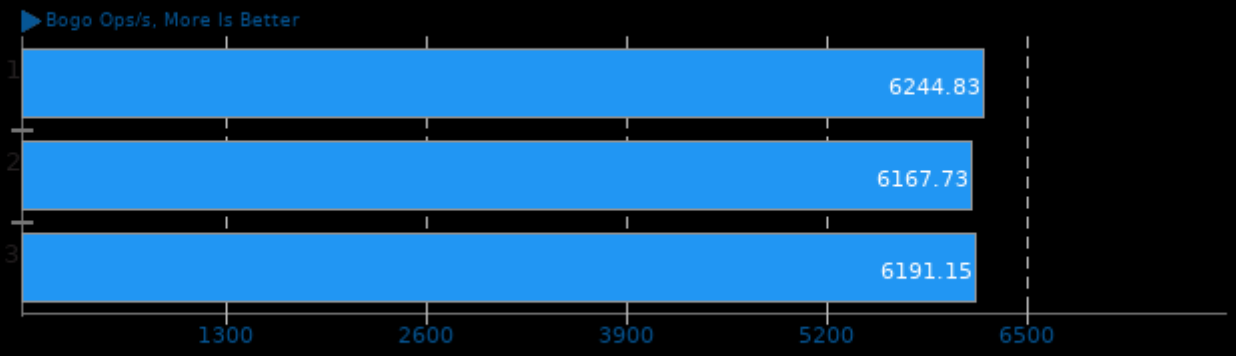
Test: Memory Copying



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

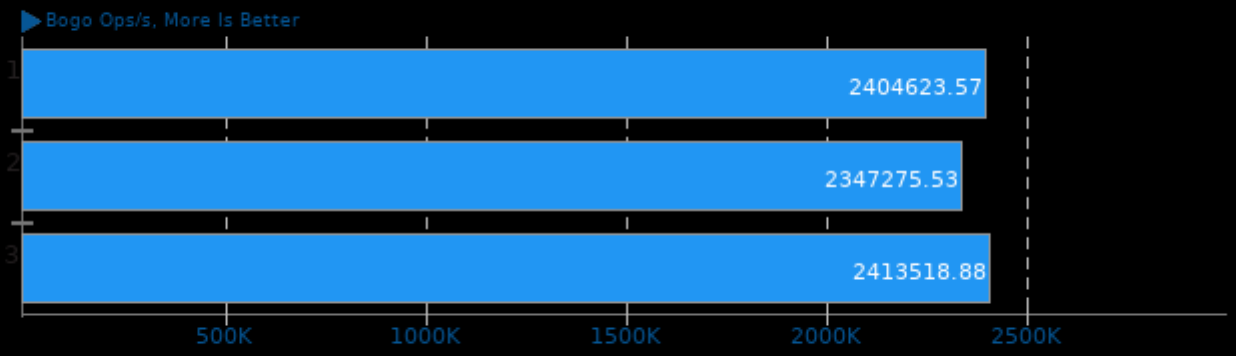
Test: Socket Activity



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

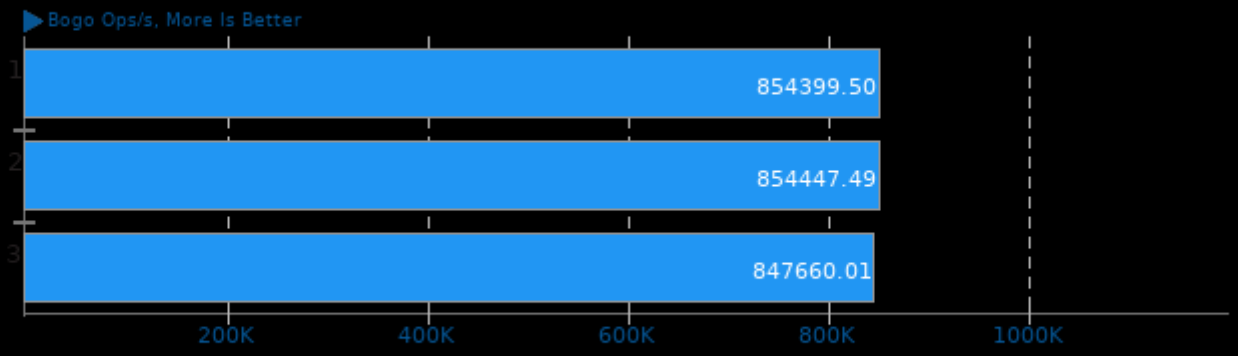
Test: Context Switching



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

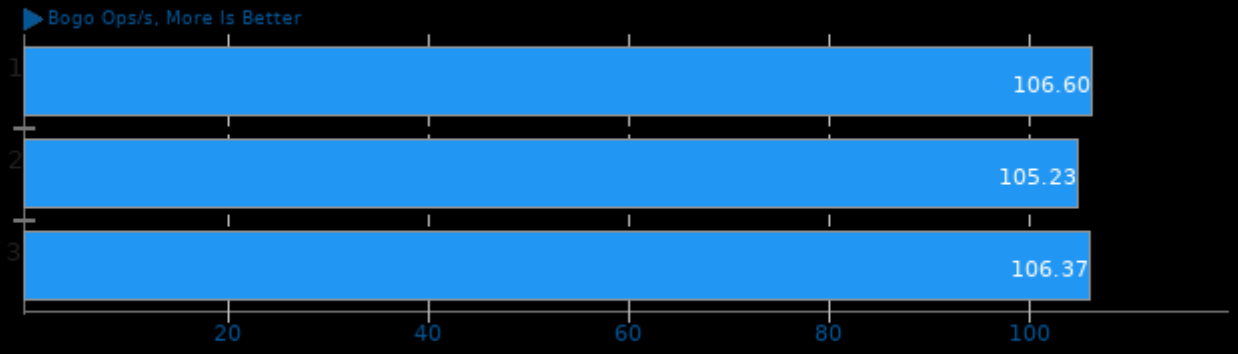
Test: Glibc C String Functions



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

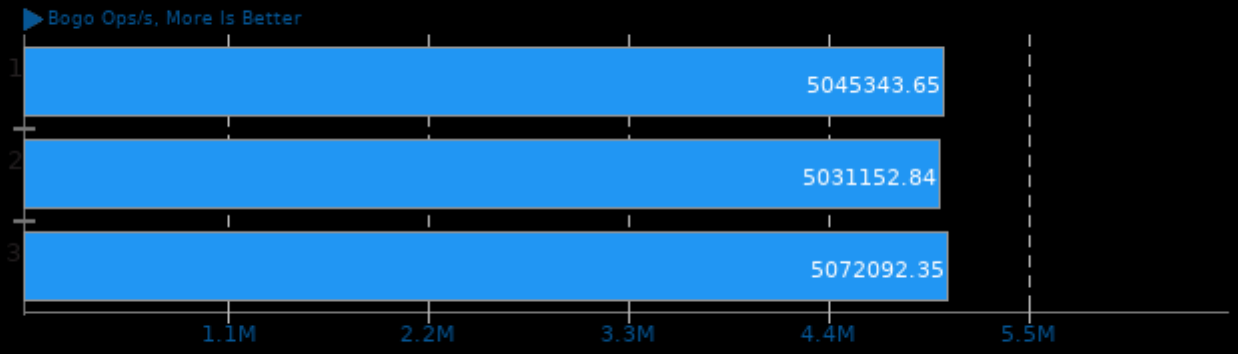
Test: Glibc Qsort Data Sorting



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Stress-NG 0.13.02

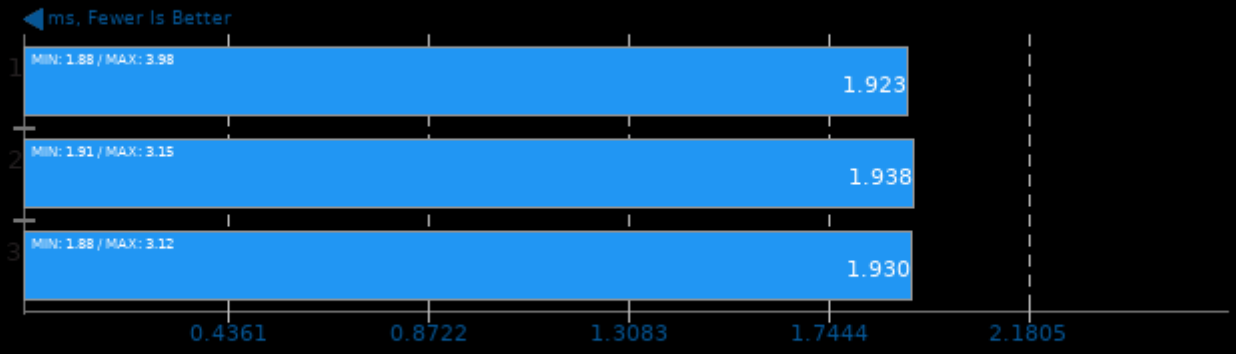
Test: System V Message Passing



1. (CC) gcc options: -O2 -std=gnu99 -lm -laio -lcrypt -lrt -lsctp -lz -ldl -pthread -lc -latomic

Mobile Neural Network 1.2

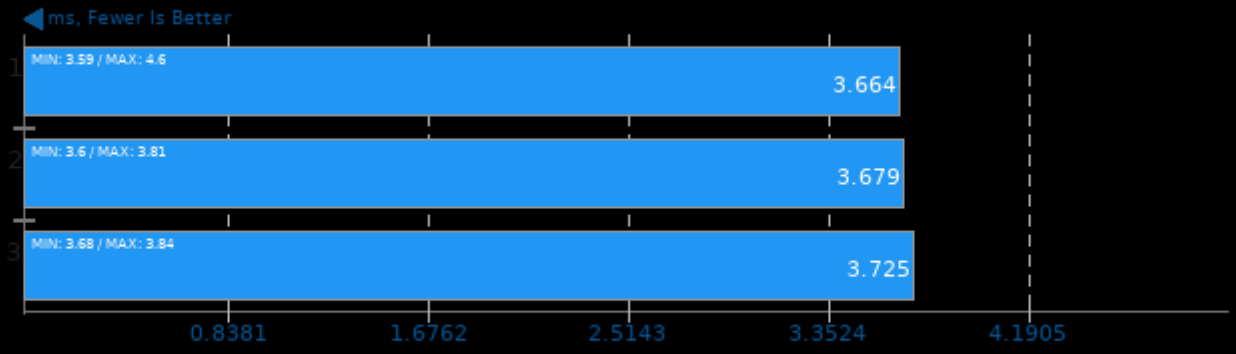
Model: mobilenetV3



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

Mobile Neural Network 1.2

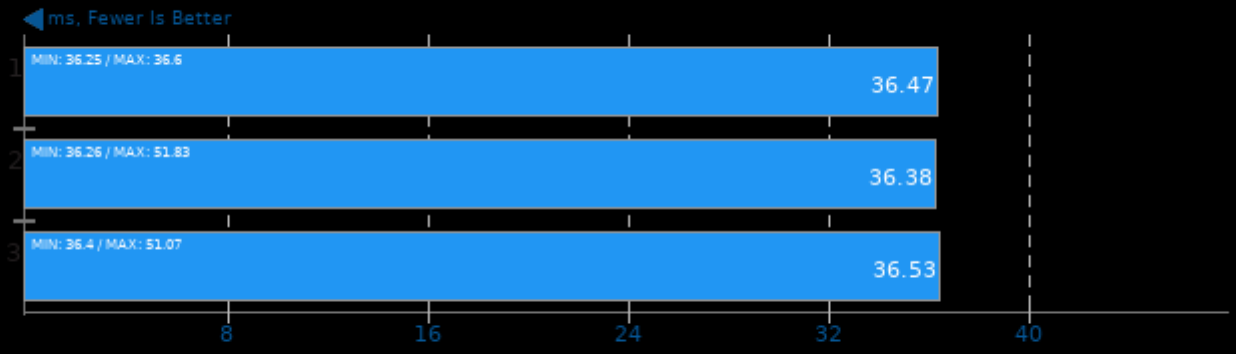
Model: squeezenetv1.1



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

Mobile Neural Network 1.2

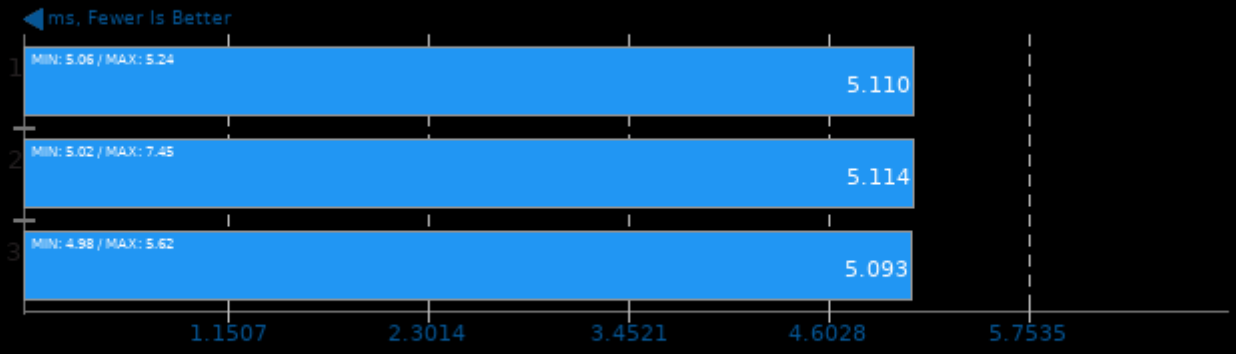
Model: resnet-v2-50



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

Mobile Neural Network 1.2

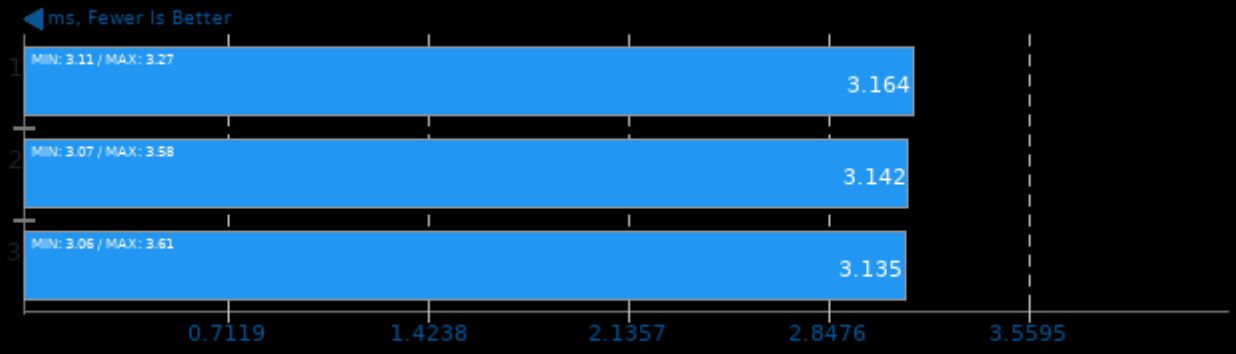
Model: SqueezeNetV1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

Mobile Neural Network 1.2

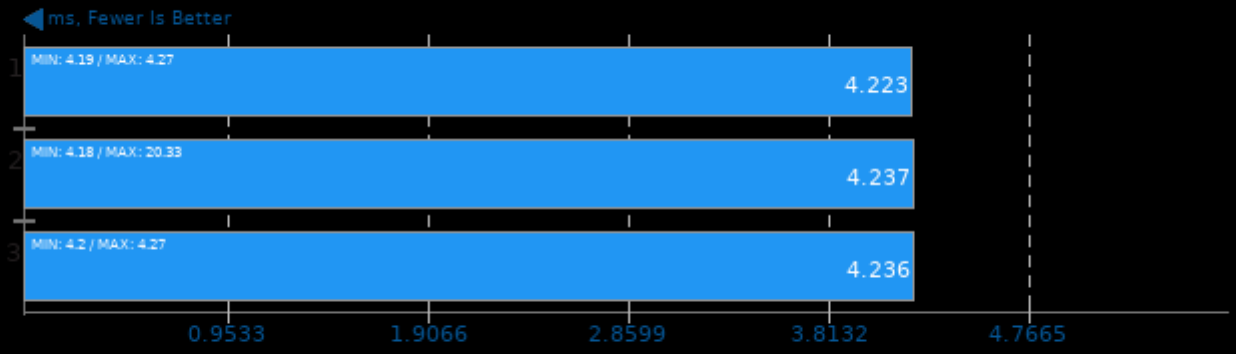
Model: MobileNetV2_224



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

Mobile Neural Network 1.2

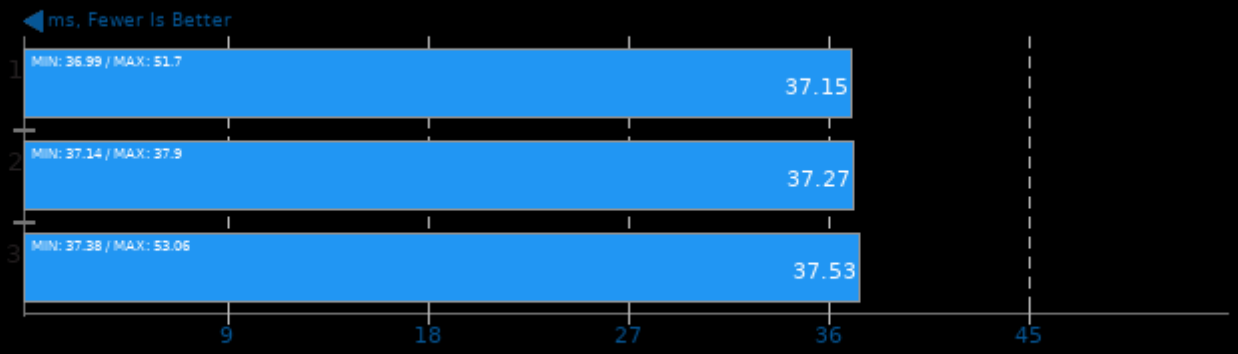
Model: mobilenet-v1-1.0



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

Mobile Neural Network 1.2

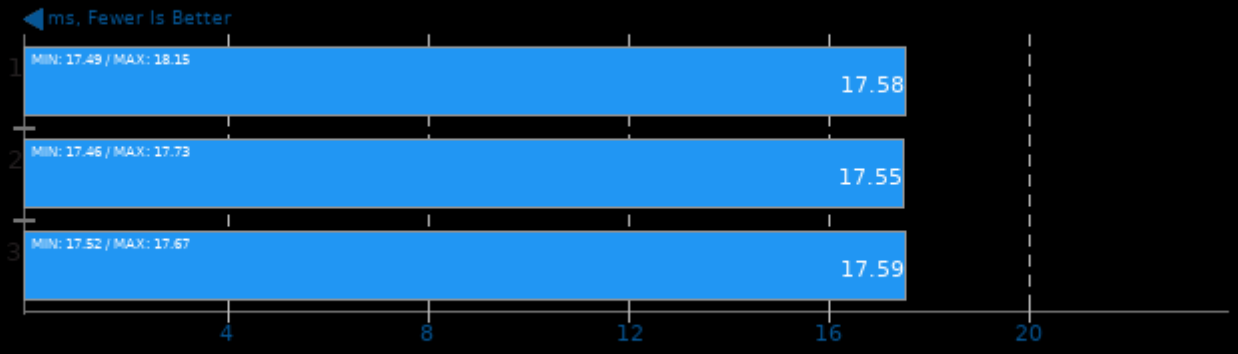
Model: inception-v3



1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fv

NCNN 20210720

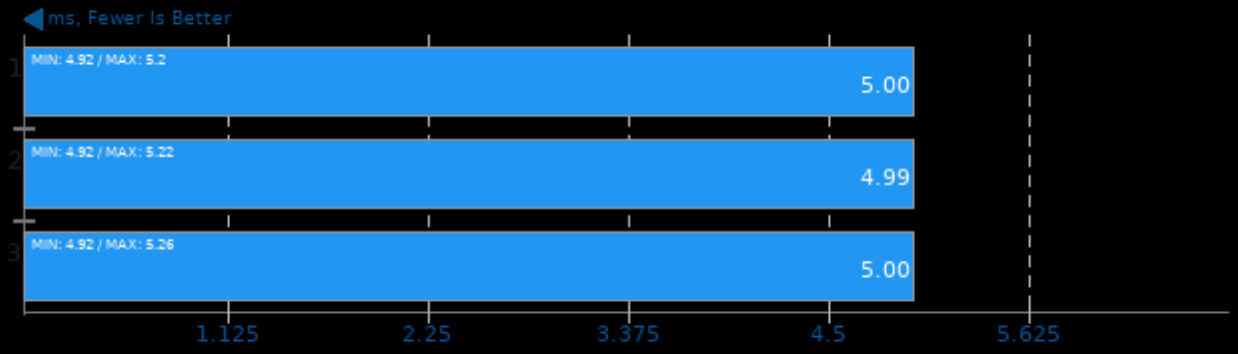
Target: CPU - Model: mobilenet



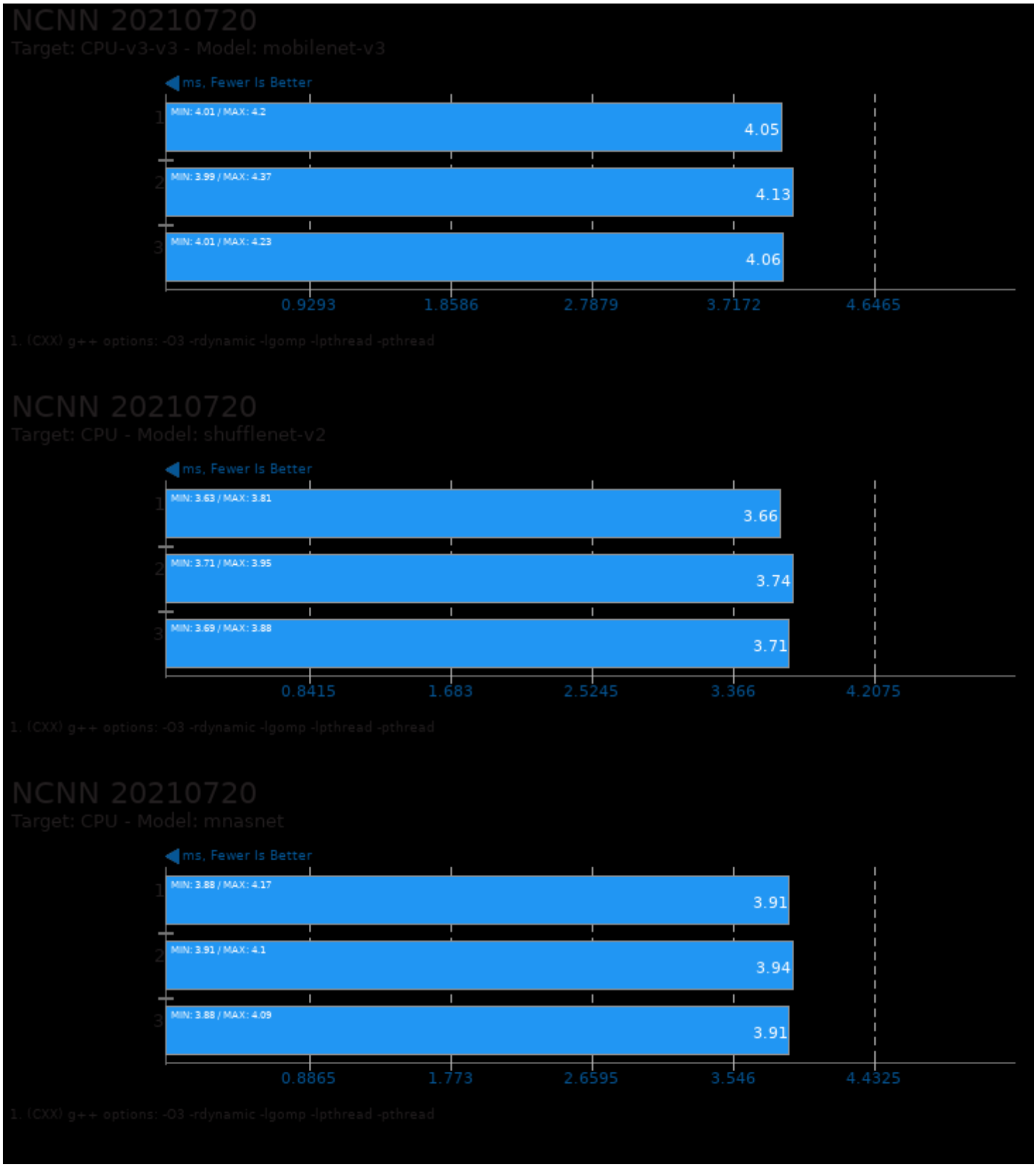
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

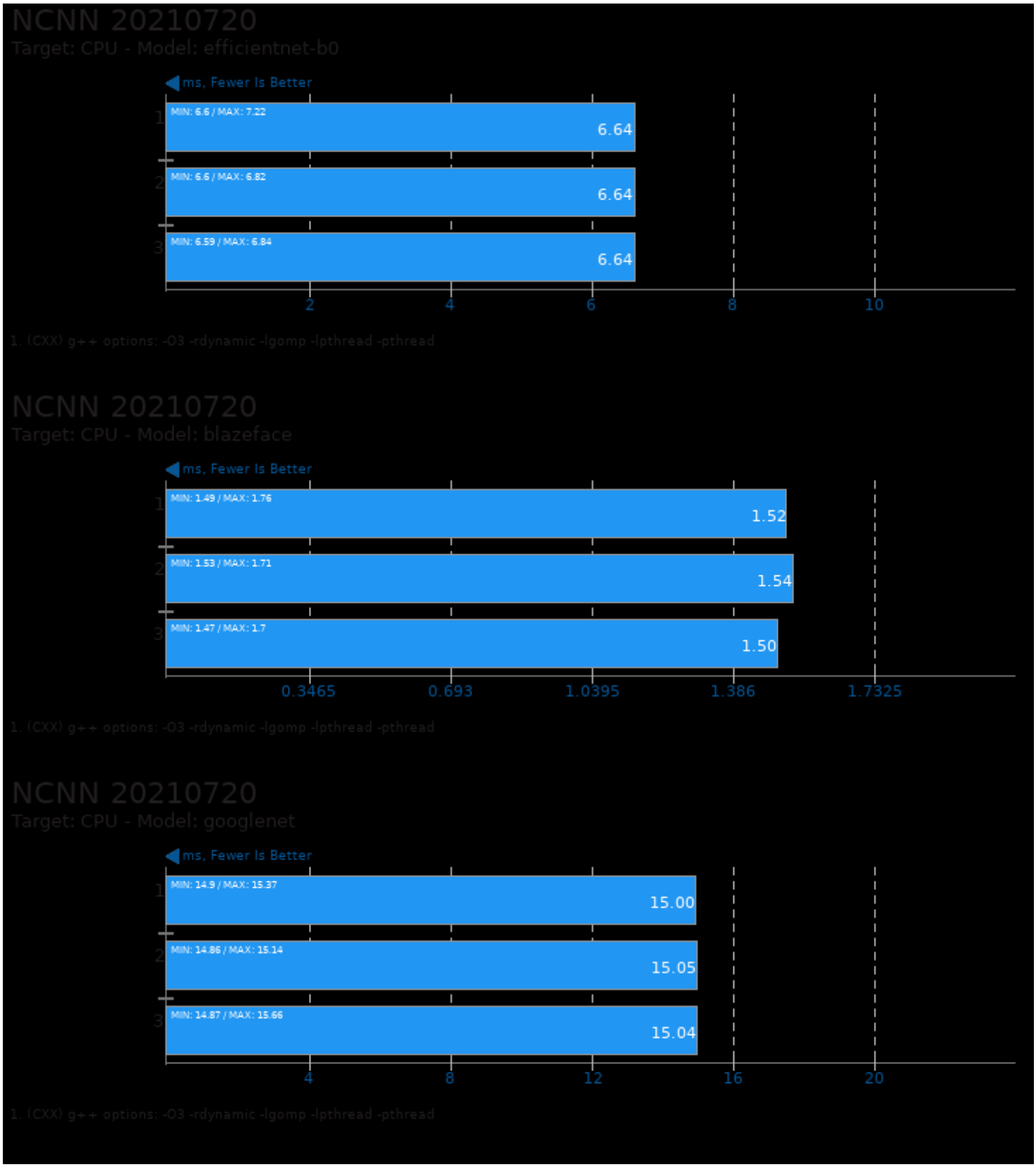
NCNN 20210720

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

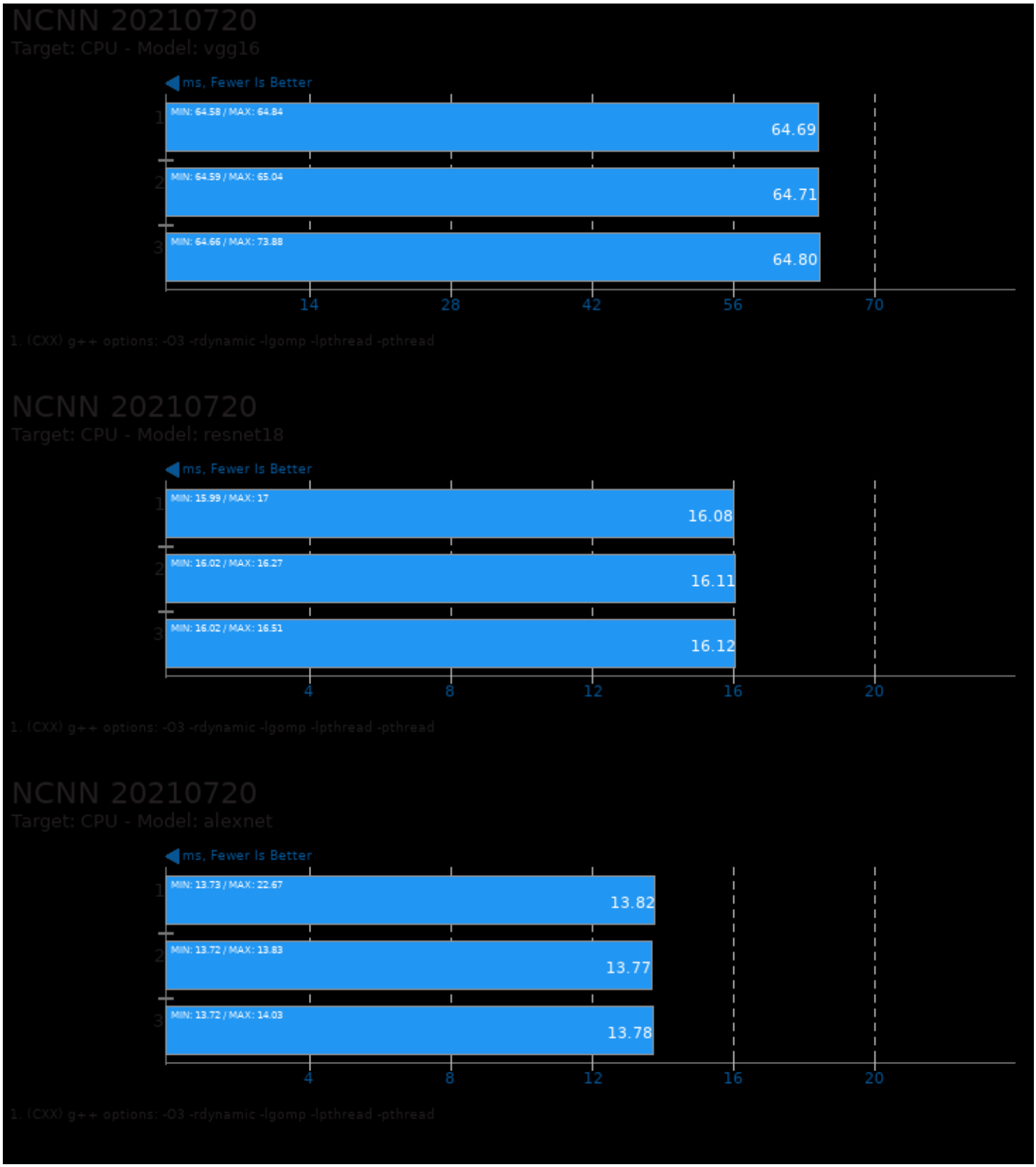


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: CPU-v3-v3 - Model: mobilenet-v3
ms, Fewer Is Better
1
MIN: 4.01 / MAX: 4.2
4.05
2
MIN: 3.99 / MAX: 4.37
4.13
3
MIN: 4.01 / MAX: 4.23
4.06
0.9293
1.8586
2.7879
3.7172
4.6465
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: shufflenet-v2
ms, Fewer Is Better
1
MIN: 3.63 / MAX: 3.81
3.66
2
MIN: 3.71 / MAX: 3.95
3.74
3
MIN: 3.69 / MAX: 3.88
3.71
0.8415
1.683
2.5245
3.366
4.2075
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: mnasnet
ms, Fewer Is Better
1
MIN: 3.88 / MAX: 4.17
3.91
2
MIN: 3.91 / MAX: 4.1
3.94
3
MIN: 3.88 / MAX: 4.09
3.91
0.8865
1.773
2.6595
3.546
4.4325
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: CPU - Model: efficientnet-b0
ms, Fewer Is Better
1
MIN: 6.6 / MAX: 7.22
6.64
2
MIN: 6.6 / MAX: 6.82
6.64
3
MIN: 6.59 / MAX: 6.84
6.64
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: blazeface
ms, Fewer Is Better
1
MIN: 1.49 / MAX: 1.76
1.52
2
MIN: 1.53 / MAX: 1.71
1.54
3
MIN: 1.47 / MAX: 1.7
1.50
0.3465
0.693
1.0395
1.386
1.7325
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: CPU - Model: googlenet
ms, Fewer Is Better
1
MIN: 14.9 / MAX: 15.37
15.00
2
MIN: 14.86 / MAX: 15.14
15.05
3
MIN: 14.87 / MAX: 15.66
15.04
4
8
12
16
20
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

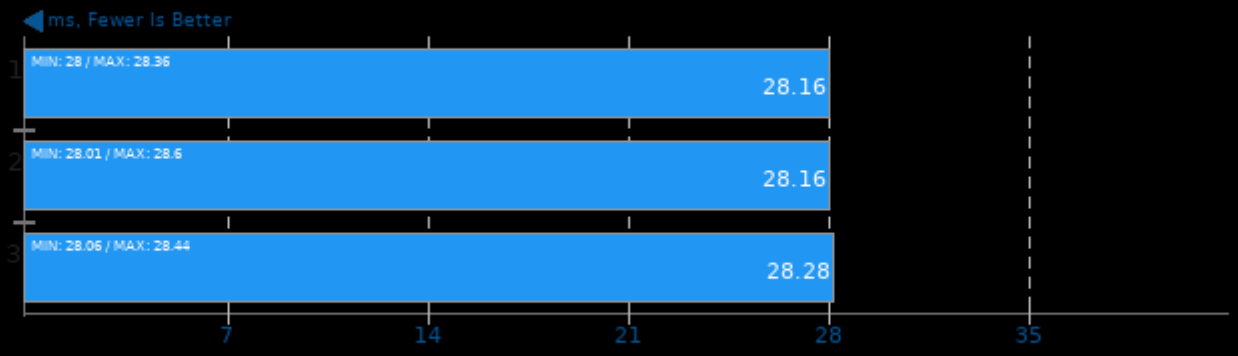
8700k september



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NCNN 20210720

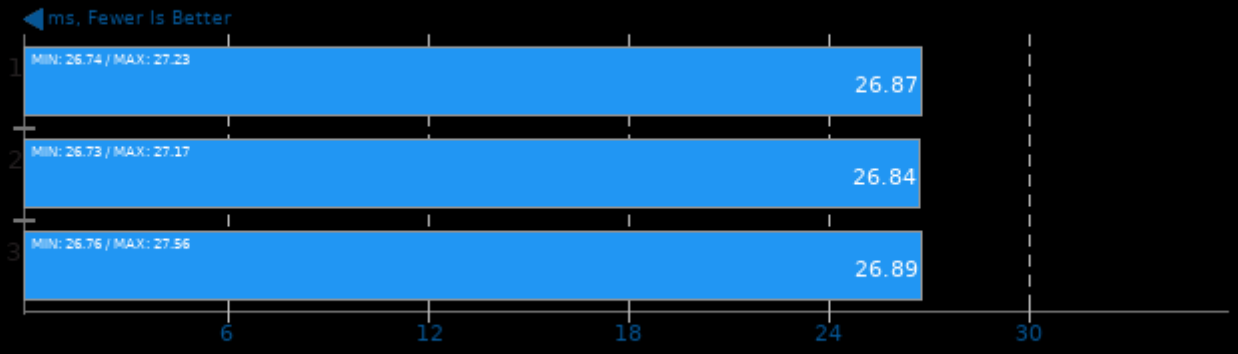
Target: CPU - Model: resnet50



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

NCNN 20210720

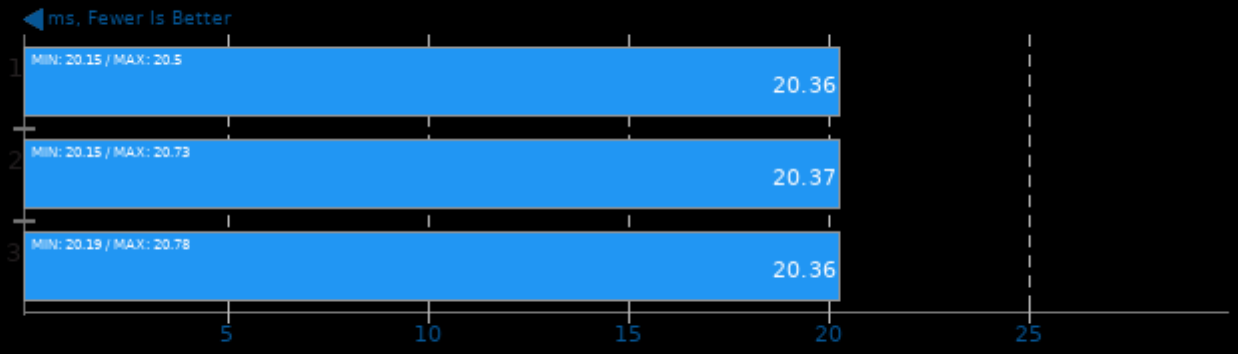
Target: CPU - Model: yolov4-tiny



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

NCNN 20210720

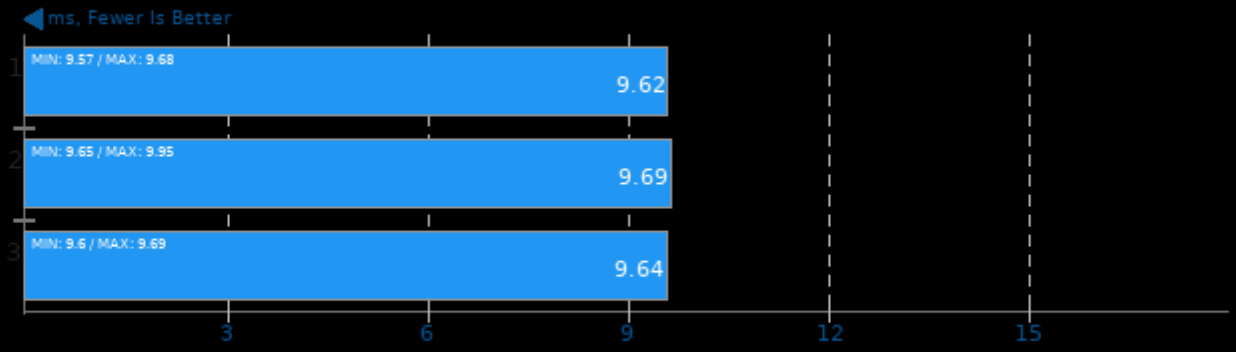
Target: CPU - Model: squeezenet_ssd



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

NCNN 20210720

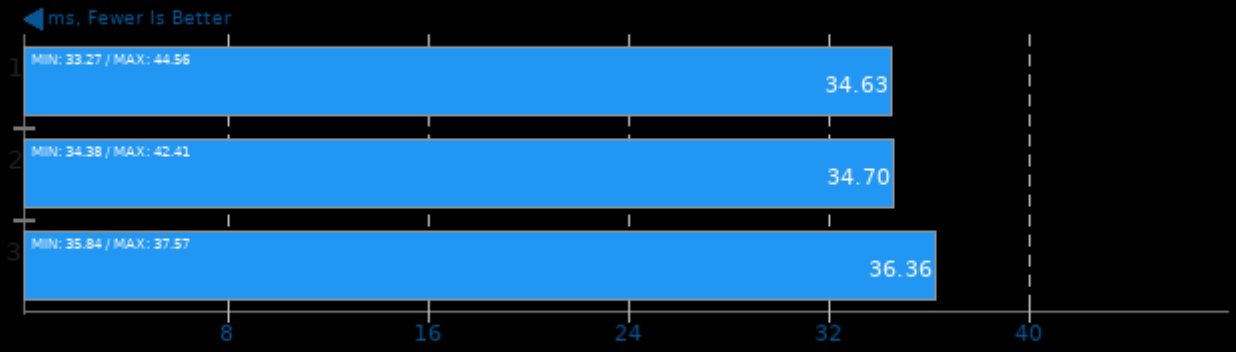
Target: CPU - Model: regnety_400m



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

NCNN 20210720

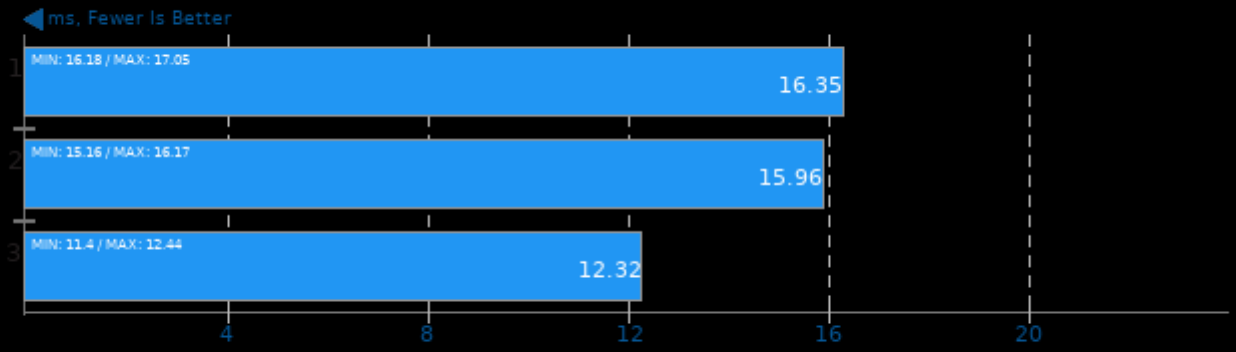
Target: Vulkan GPU - Model: mobilenet



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

NCNN 20210720

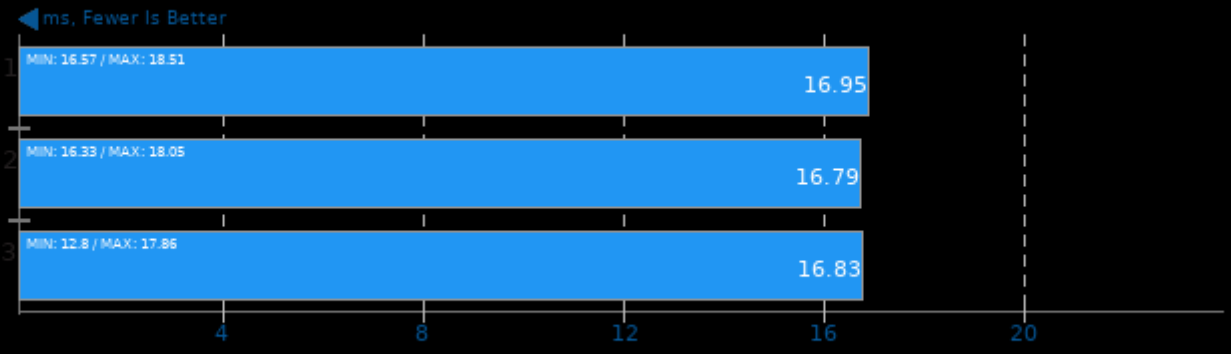
Target: Vulkan GPU-v2-v2 - Model: mobilenet-v2



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

NCNN 20210720

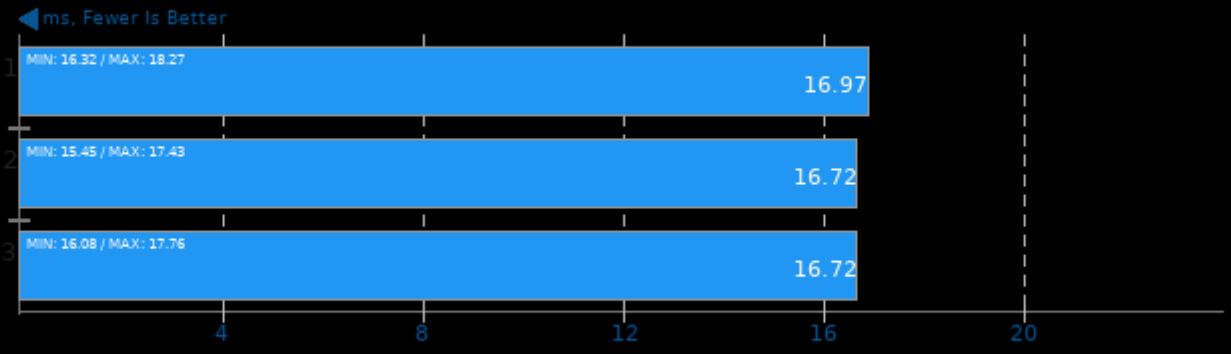
Target: Vulkan GPU-v3-v3 - Model: mobilenet-v3



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

NCNN 20210720

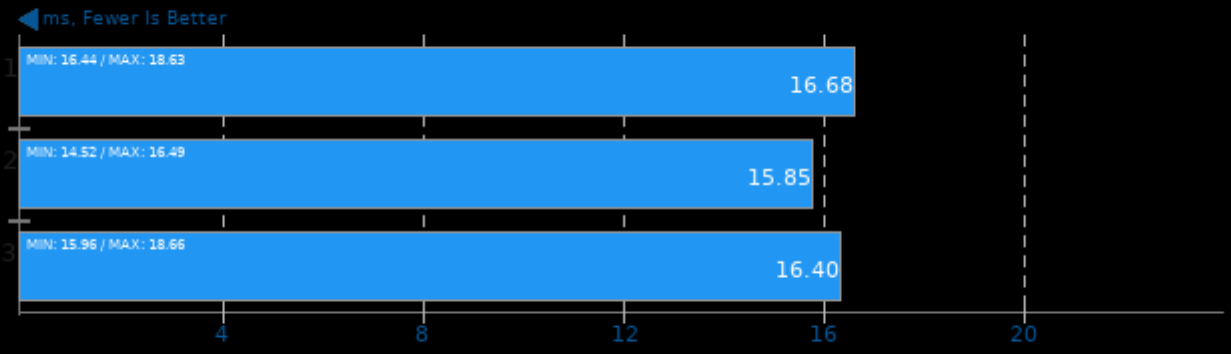
Target: Vulkan GPU - Model: shufflenet-v2



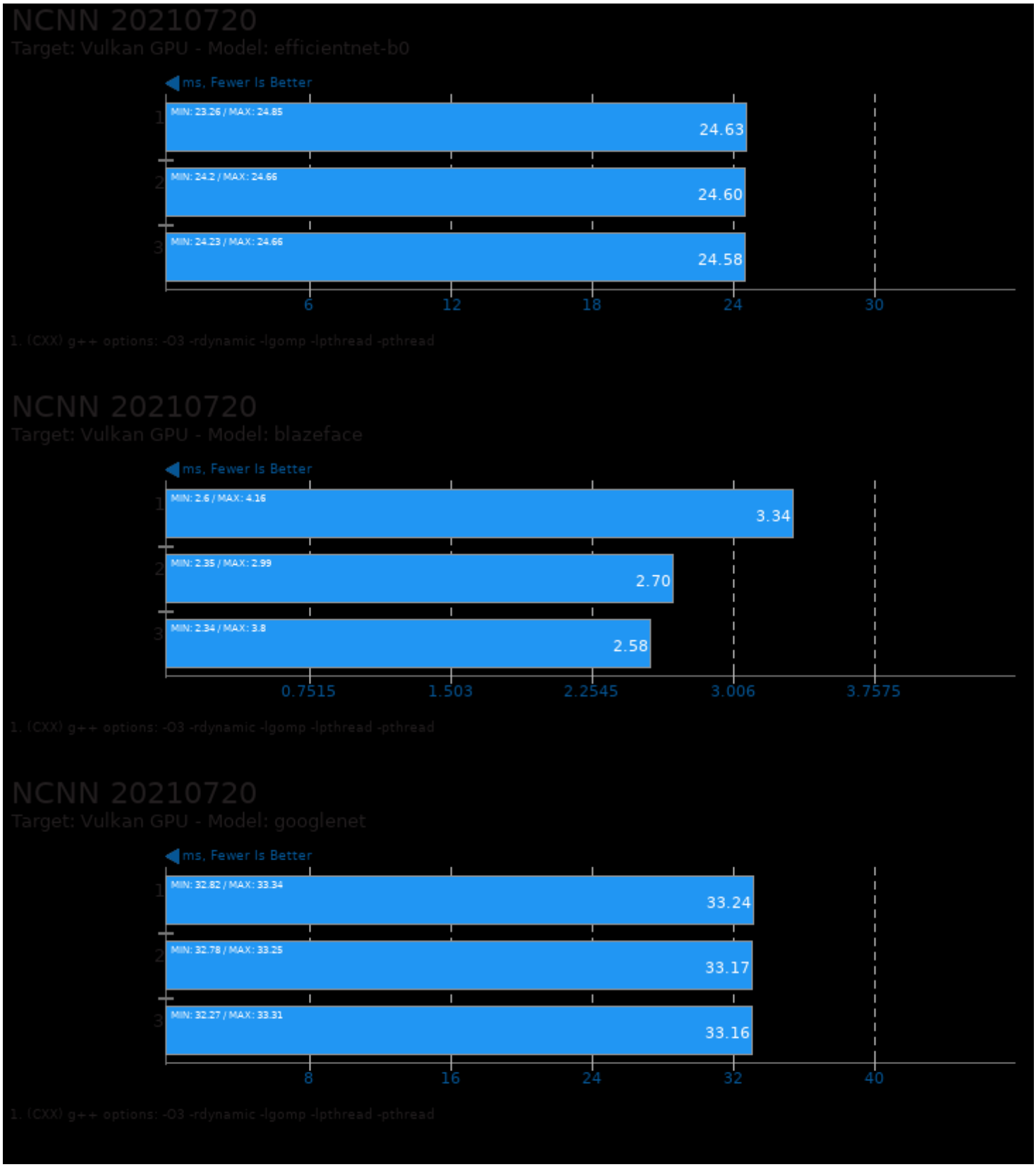
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

NCNN 20210720

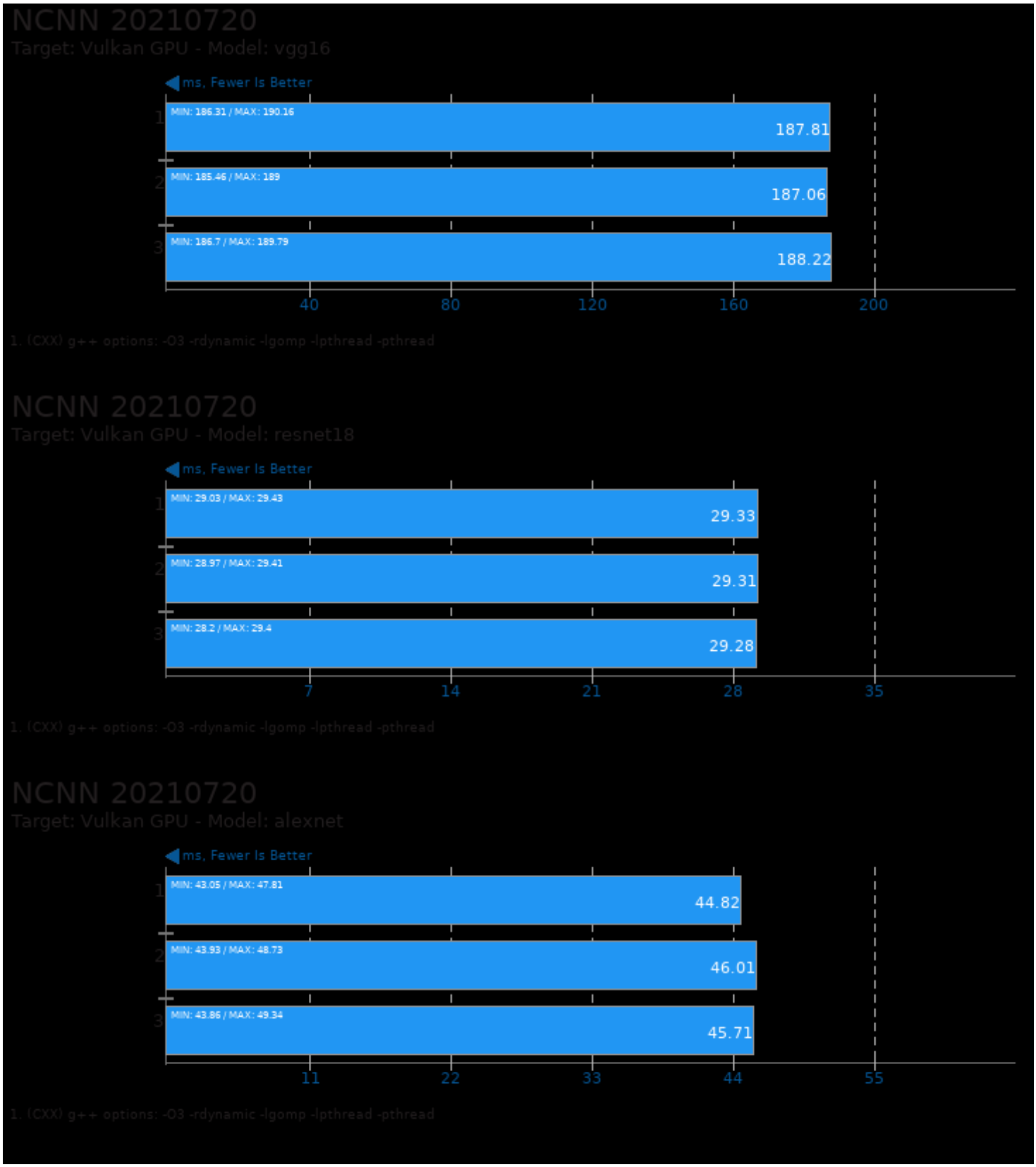
Target: Vulkan GPU - Model: mnasnet

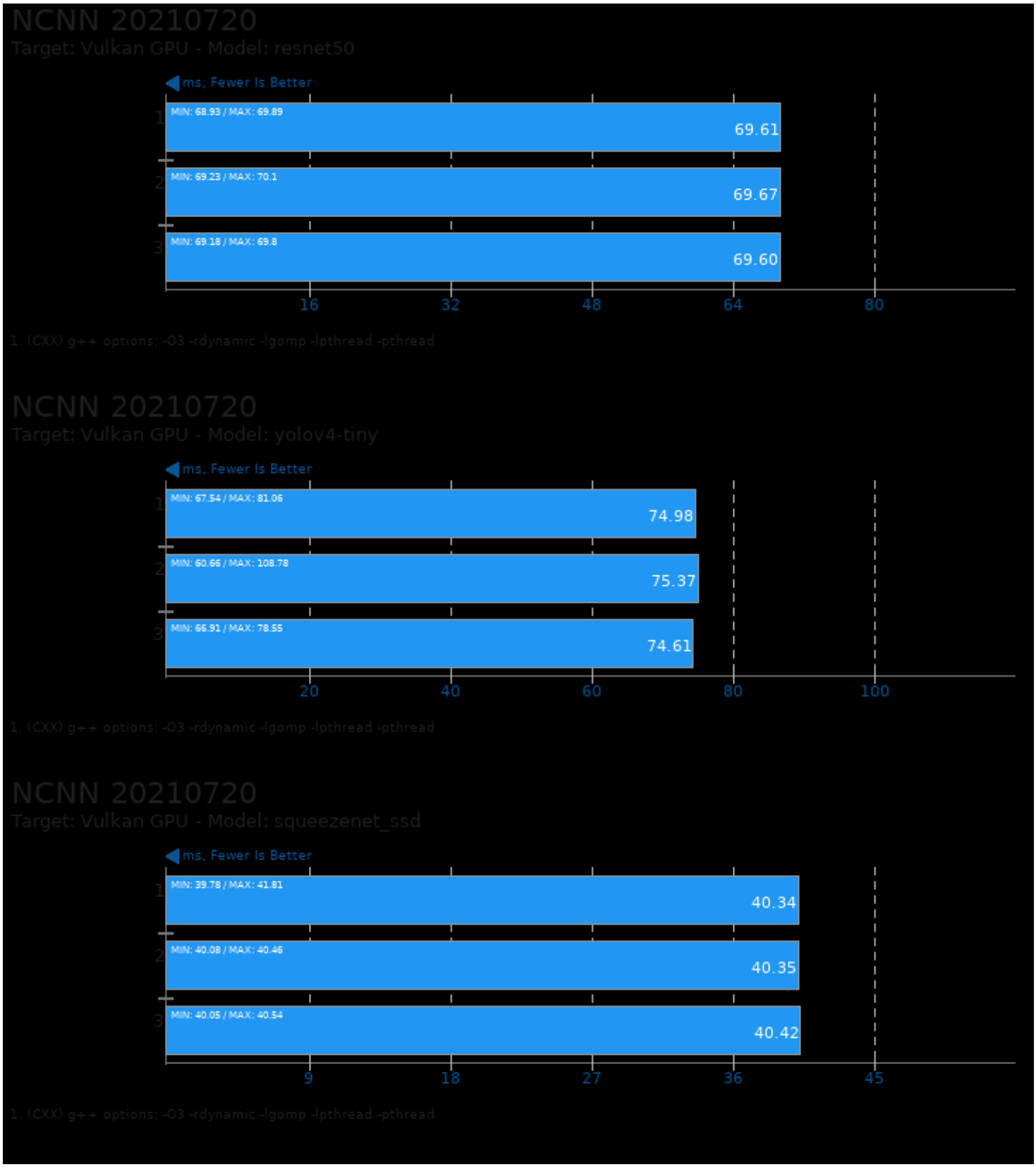


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread


NCNN 20210720
Target: Vulkan GPU - Model: efficientnet-b0
ms, Fewer Is Better
1
MIN: 23.26 / MAX: 24.85
24.63
2
MIN: 24.2 / MAX: 24.66
24.60
3
MIN: 24.23 / MAX: 24.66
24.58
6
12
18
24
30
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: Vulkan GPU - Model: blazeface
ms, Fewer Is Better
1
MIN: 2.6 / MAX: 4.16
3.34
2
MIN: 2.35 / MAX: 2.99
2.70
3
MIN: 2.34 / MAX: 3.8
2.58
0.7515
1.503
2.2545
3.006
3.7575
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: Vulkan GPU - Model: googlenet
ms, Fewer Is Better
1
MIN: 32.82 / MAX: 33.34
33.24
2
MIN: 32.78 / MAX: 33.25
33.17
3
MIN: 32.27 / MAX: 33.31
33.16
8
16
24
32
40
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

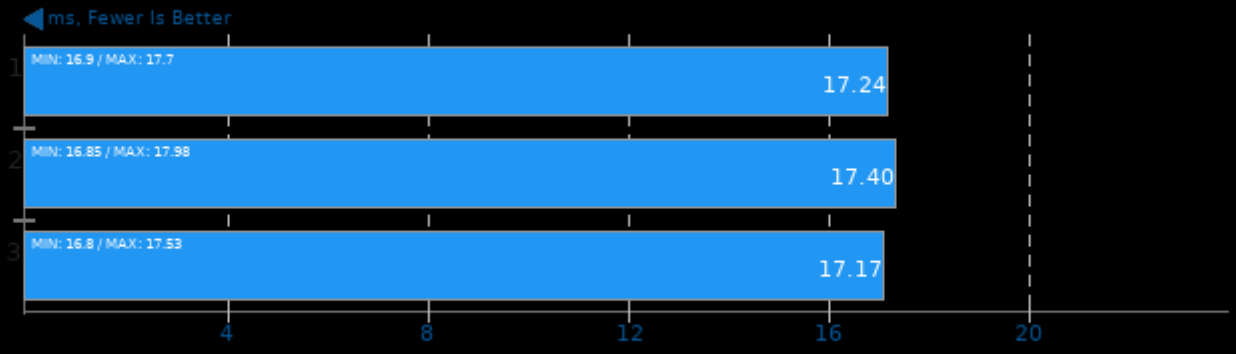
8700k september




NCNN 20210720
Target: Vulkan GPU - Model: resnet50
ms, Fewer Is Better
1
MIN: 68.93 / MAX: 69.89
69.61
2
MIN: 69.23 / MAX: 70.1
69.67
3
MIN: 69.18 / MAX: 69.8
69.60
16
32
48
64
80
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: Vulkan GPU - Model: yolov4-tiny
ms, Fewer Is Better
1
MIN: 67.54 / MAX: 81.06
74.98
2
MIN: 60.66 / MAX: 108.78
75.37
3
MIN: 66.91 / MAX: 78.55
74.61
20
40
60
80
100
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread
NCNN 20210720
Target: Vulkan GPU - Model: squeezenet_ssd
ms, Fewer Is Better
1
MIN: 39.78 / MAX: 41.81
40.34
2
MIN: 40.08 / MAX: 40.46
40.35
3
MIN: 40.05 / MAX: 40.54
40.42
9
18
27
36
45
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread -pthread

NCNN 20210720

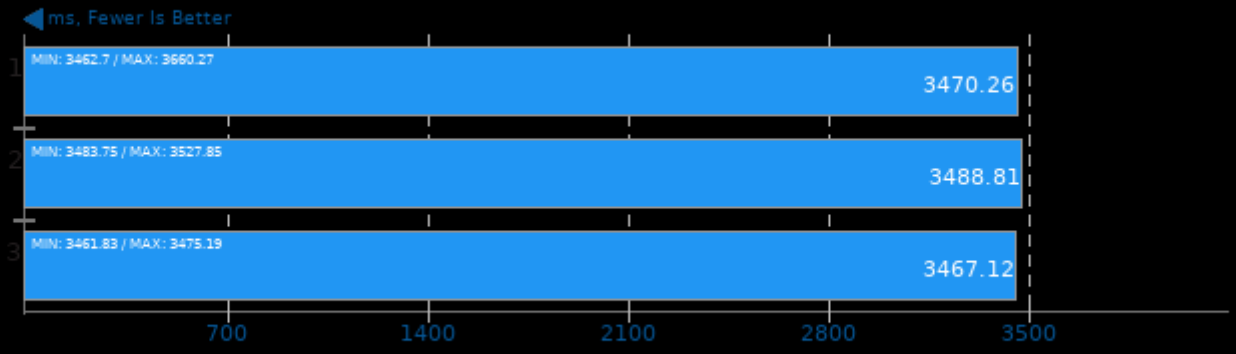
Target: Vulkan GPU - Model: regnety_400m



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

TNN 0.3

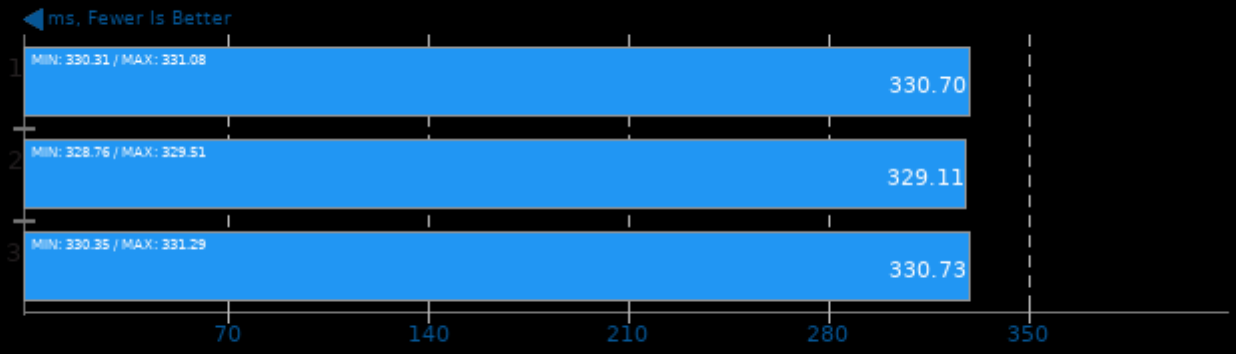
Target: CPU - Model: DenseNet



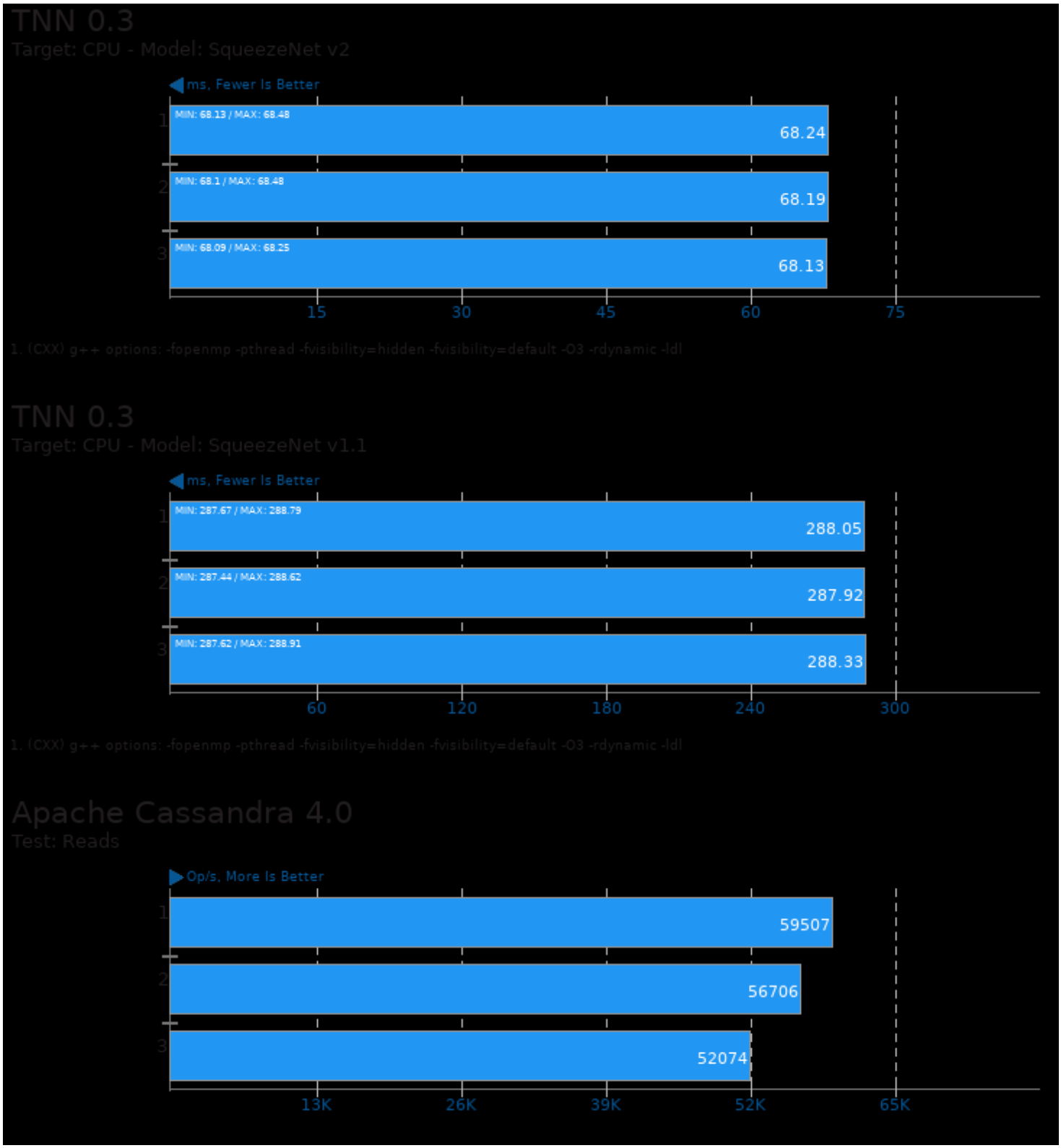
1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl

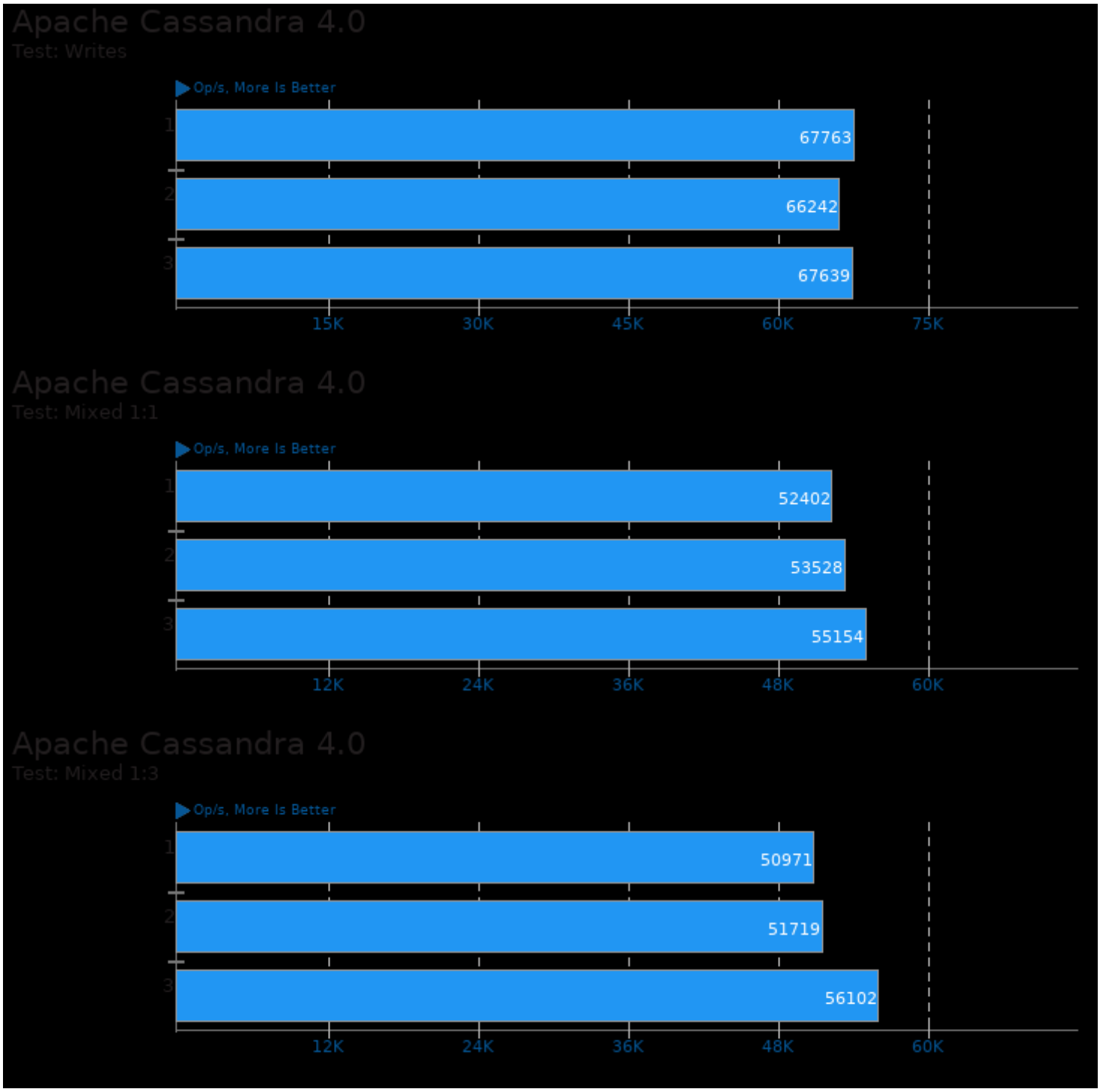
TNN 0.3

Target: CPU - Model: MobileNet v2



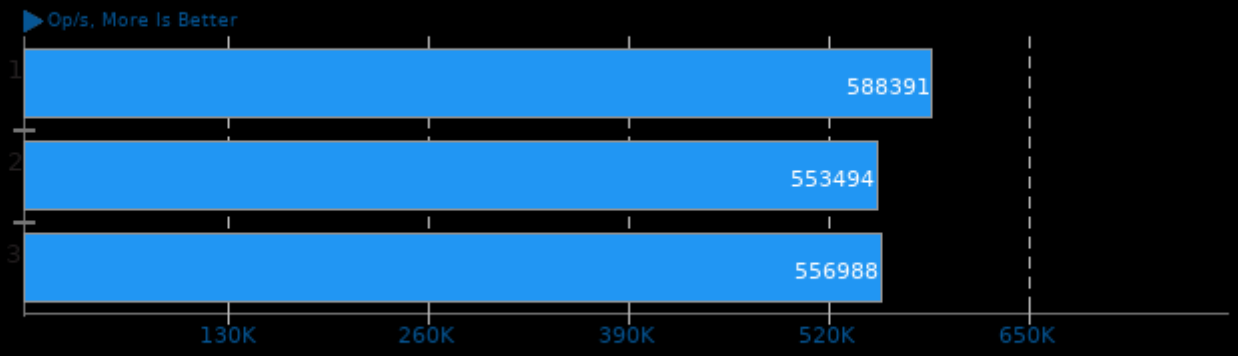
1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl


TNN 0.3
Target: CPU - Model: SqueezeNet v2
ms, Fewer Is Better
1
MIN: 68.13 / MAX: 68.48
68.24
2
MIN: 68.1 / MAX: 68.48
68.19
3
MIN: 68.09 / MAX: 68.25
68.13
15
30
45
60
75
1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl
TNN 0.3
Target: CPU - Model: SqueezeNet v1.1
ms, Fewer Is Better
1
MIN: 287.67 / MAX: 288.79
288.05
2
MIN: 287.44 / MAX: 288.62
287.92
3
MIN: 287.62 / MAX: 288.91
288.33
60
120
180
240
300
1. (CXX) g++ options: -fopenmp -pthread -fvisibility=hidden -fvisibility=default -O3 -rdynamic -ldl
Apache Cassandra 4.0
Test: Reads
Op/s, More Is Better
1
59507
2
56706
3
52074
13K
26K
39K
52K
65K


Apache Cassandra 4.0
Test: Writes
Op/s, More Is Better
1
67763
2
66242
3
67639
15K
30K
45K
60K
75K
Apache Cassandra 4.0
Test: Mixed 1:1
Op/s, More Is Better
1
52402
2
53528
3
55154
12K
24K
36K
48K
60K
Apache Cassandra 4.0
Test: Mixed 1:3
Op/s, More Is Better
1
50971
2
51719
3
56102
12K
24K
36K
48K
60K

Facebook RocksDB 6.22.1

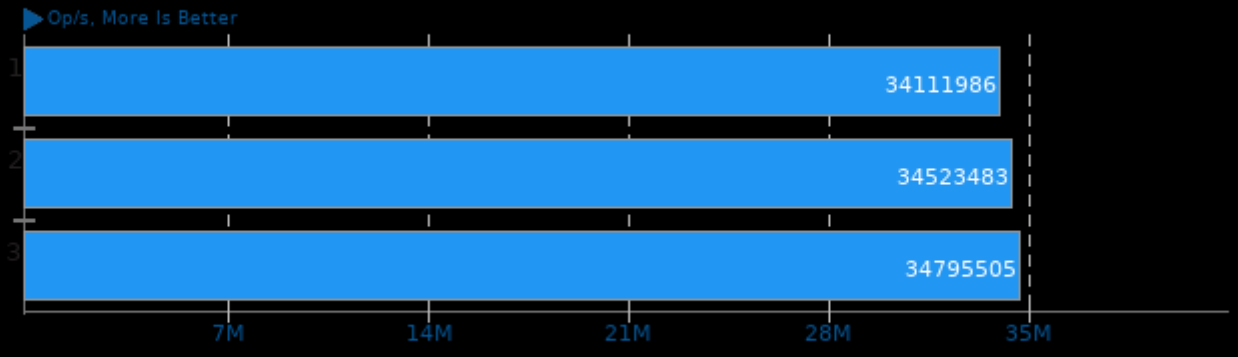
Test: Random Fill



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 6.22.1

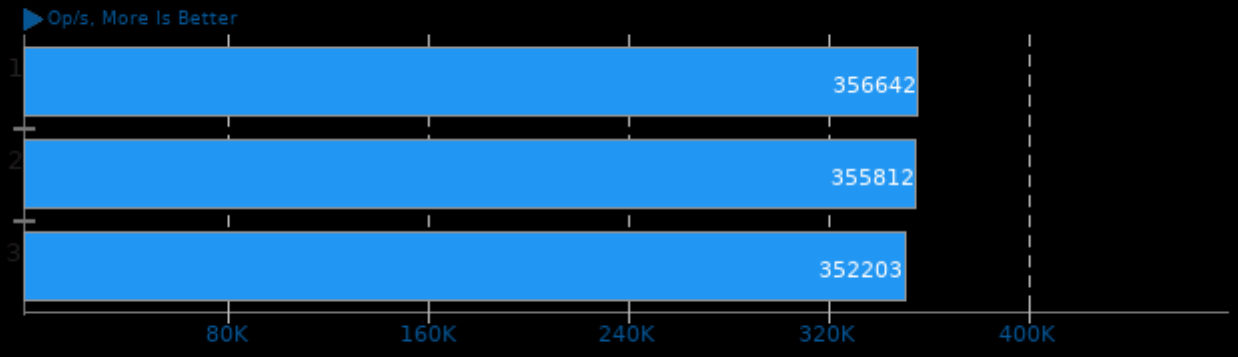
Test: Random Read



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 6.22.1

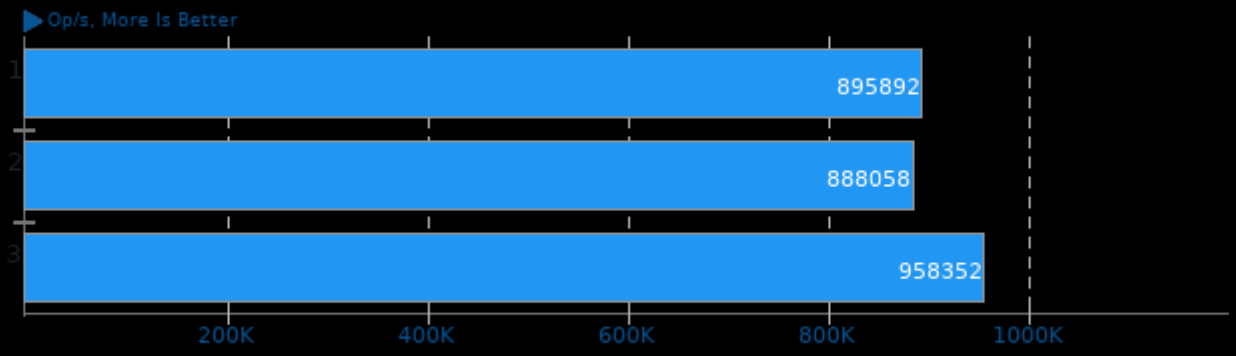
Test: Update Random



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 6.22.1

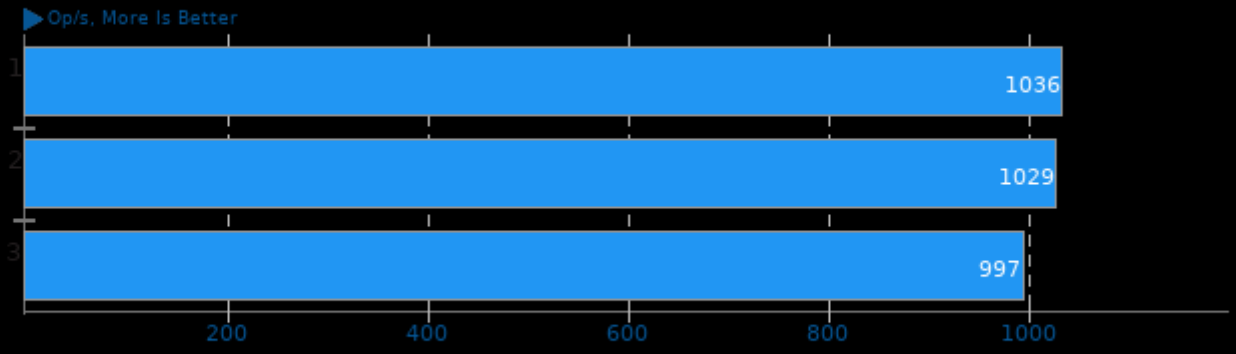
Test: Sequential Fill



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 6.22.1

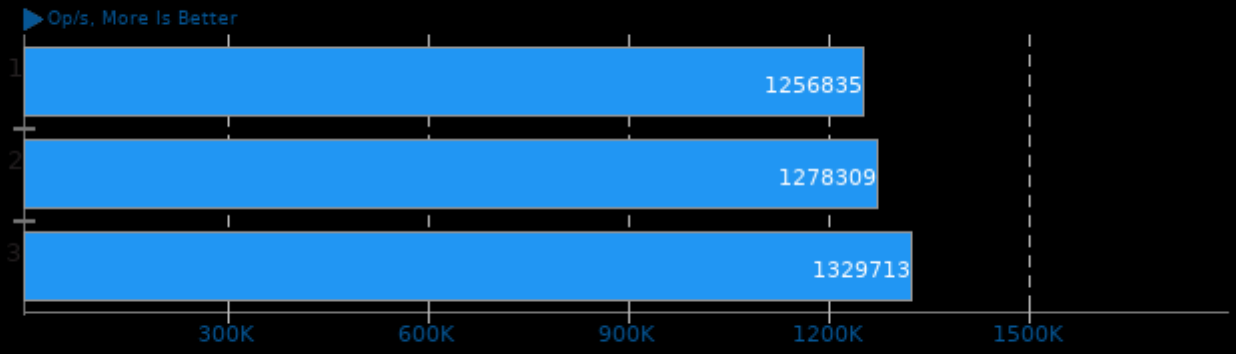
Test: Random Fill Sync



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 6.22.1

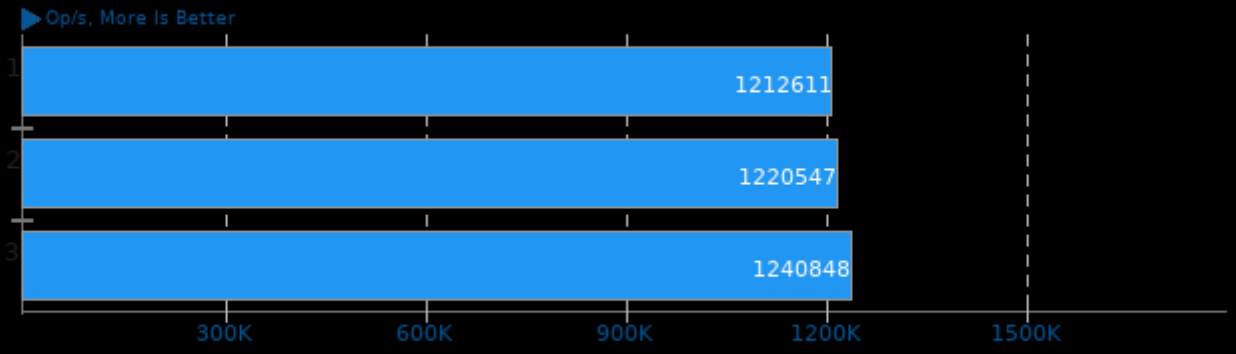
Test: Read While Writing



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 6.22.1

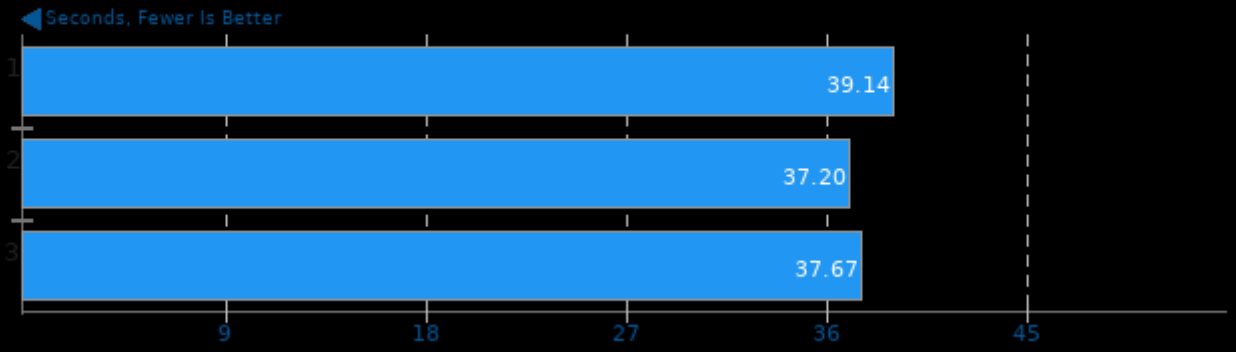
Test: Read Random Write Random



1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

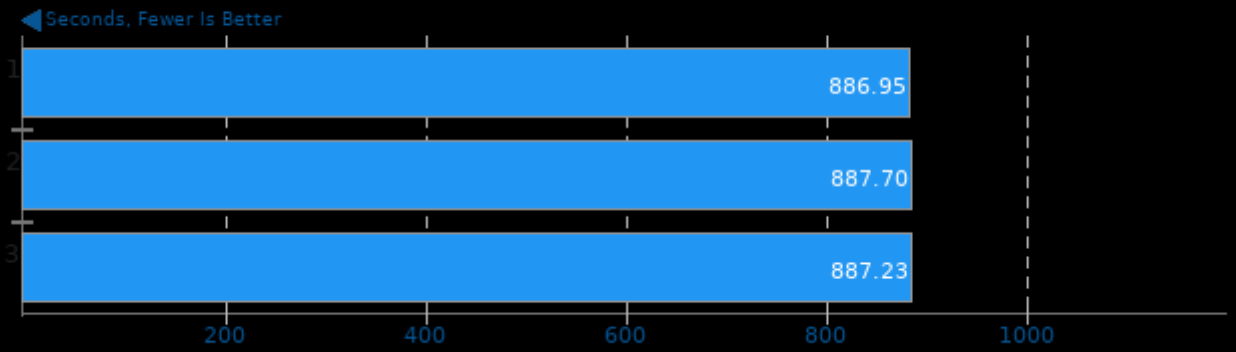
ECP-CANDLE 0.4

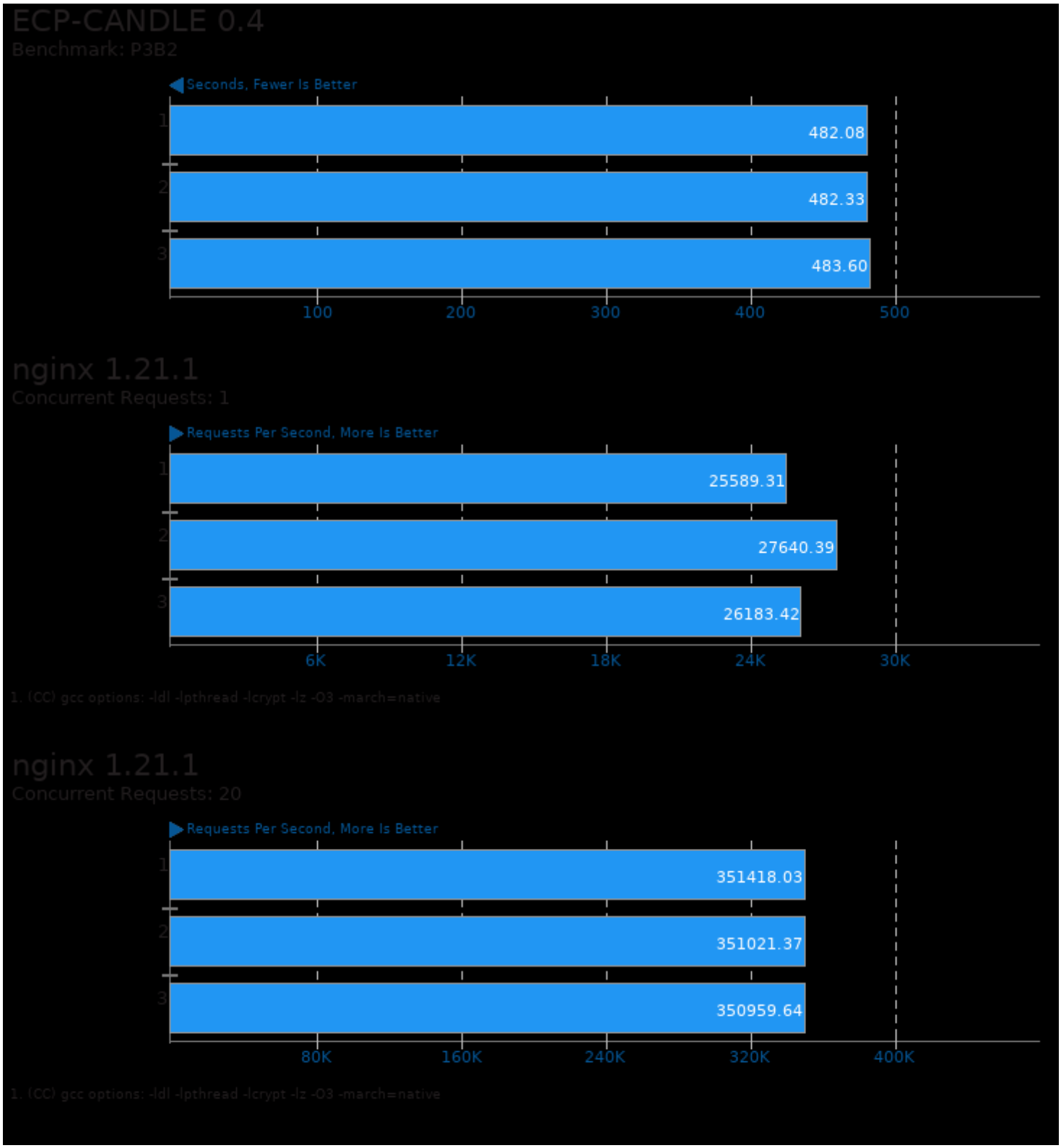
Benchmark: P1B2

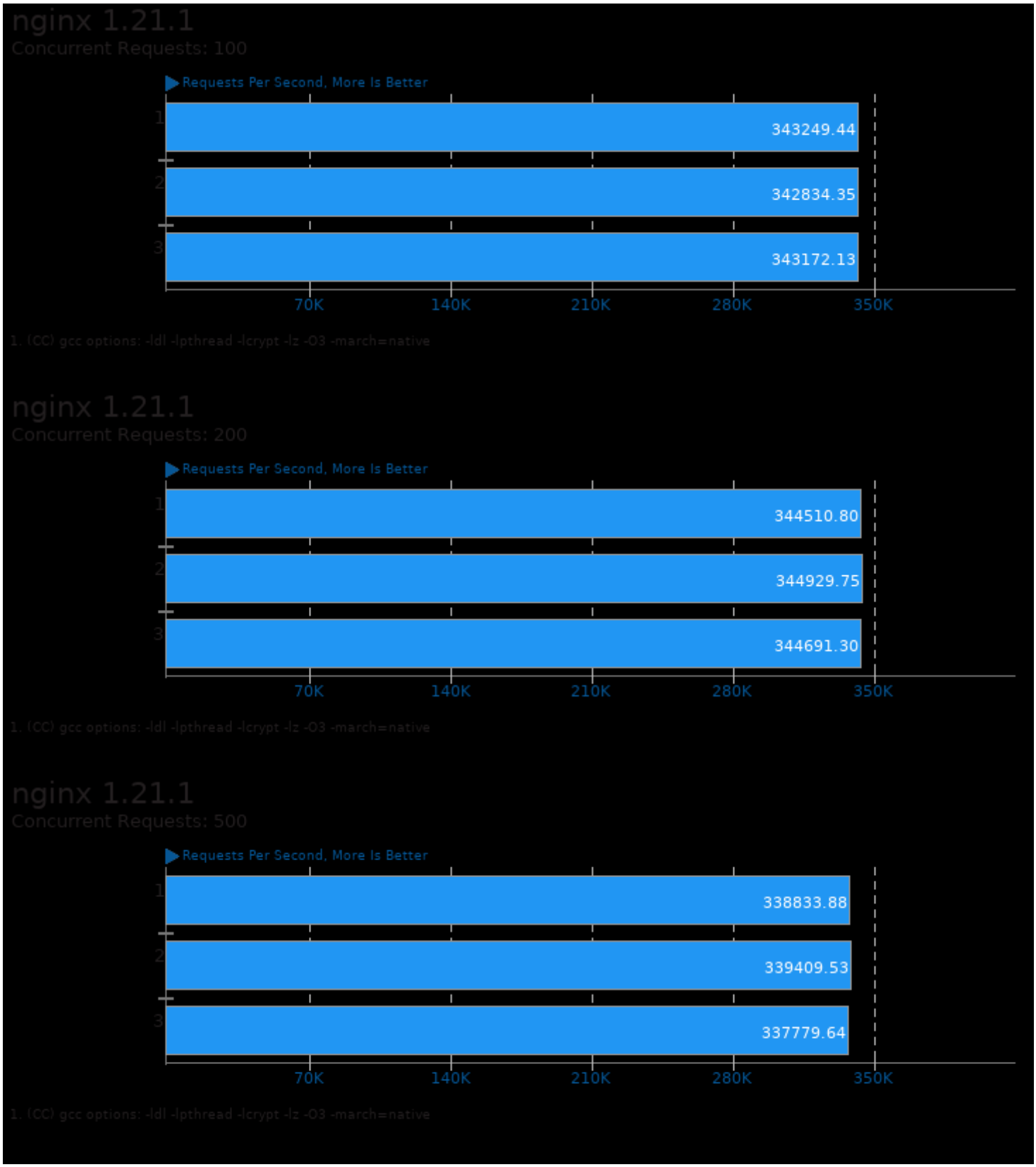


ECP-CANDLE 0.4

Benchmark: P3B1

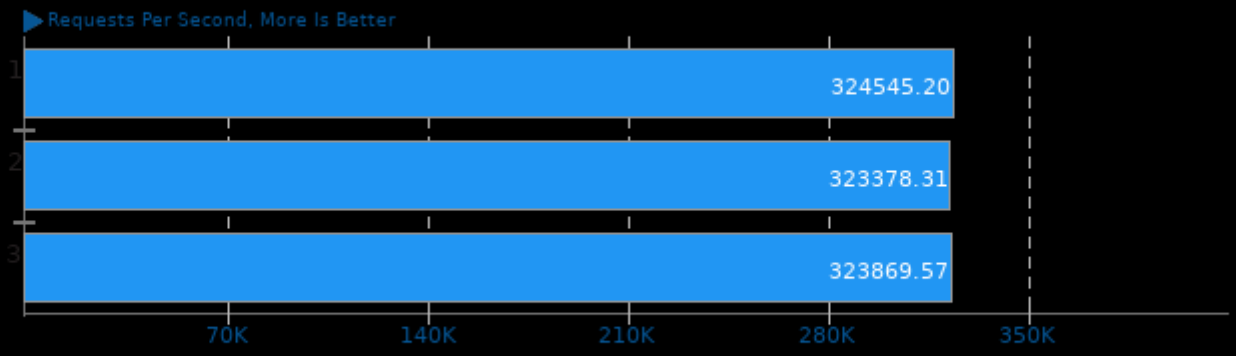



ECP-CANDLE 0.4
Benchmark: P3B2
Seconds, Fewer Is Better
1
482.08
2
482.33
3
483.60
100
200
300
400
500
nginx 1.21.1
Concurrent Requests: 1
Requests Per Second, More Is Better
1
25589.31
2
27640.39
3
26183.42
6K
12K
18K
24K
30K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native
nginx 1.21.1
Concurrent Requests: 20
Requests Per Second, More Is Better
1
351418.03
2
351021.37
3
350959.64
80K
160K
240K
320K
400K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native


nginx 1.21.1
Concurrent Requests: 100
Requests Per Second, More Is Better
1
2
3
343249.44
342834.35
343172.13
70K
140K
210K
280K
350K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native
nginx 1.21.1
Concurrent Requests: 200
Requests Per Second, More Is Better
1
2
3
344510.80
344929.75
344691.30
70K
140K
210K
280K
350K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native
nginx 1.21.1
Concurrent Requests: 500
Requests Per Second, More Is Better
1
2
3
338833.88
339409.53
337779.64
70K
140K
210K
280K
350K
1. (CC) gcc options: -ldl -lpthread -lcrypt -lz -O3 -march=native

nginx 1.21.1

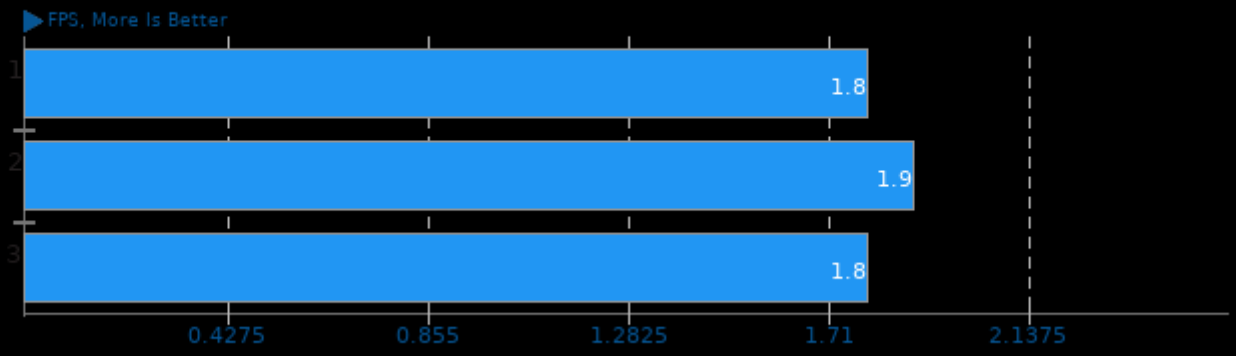
Concurrent Requests: 1000



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

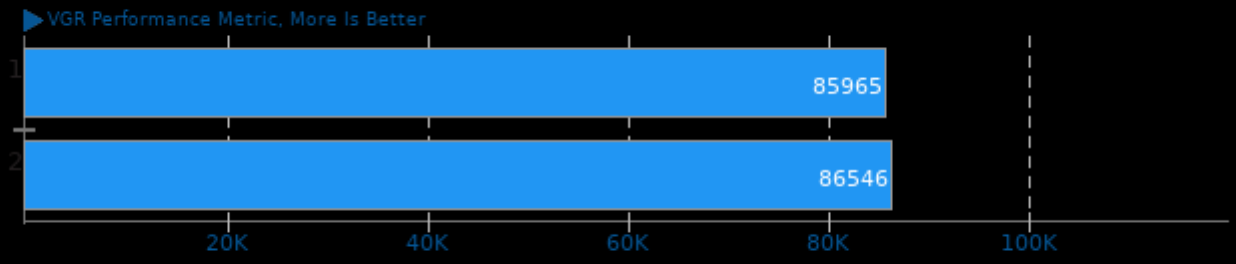
Natron 2.4

Input: Spaceship



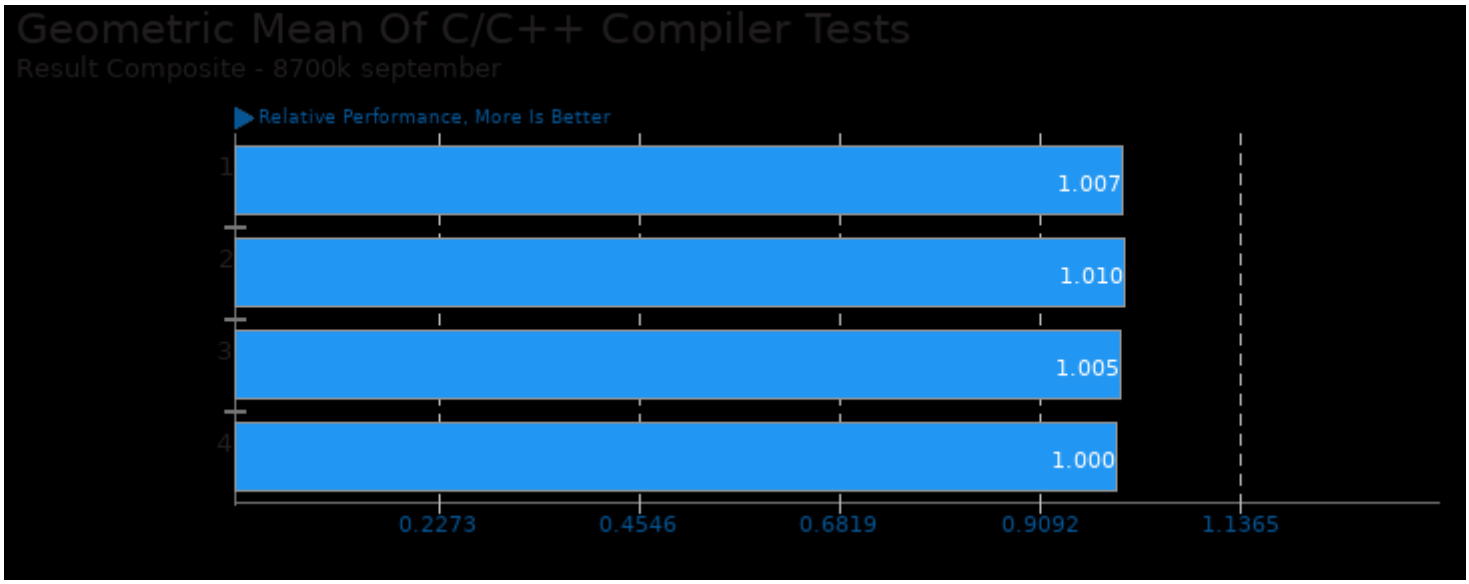
BRL-CAD 7.32.2

VGR Performance Metric

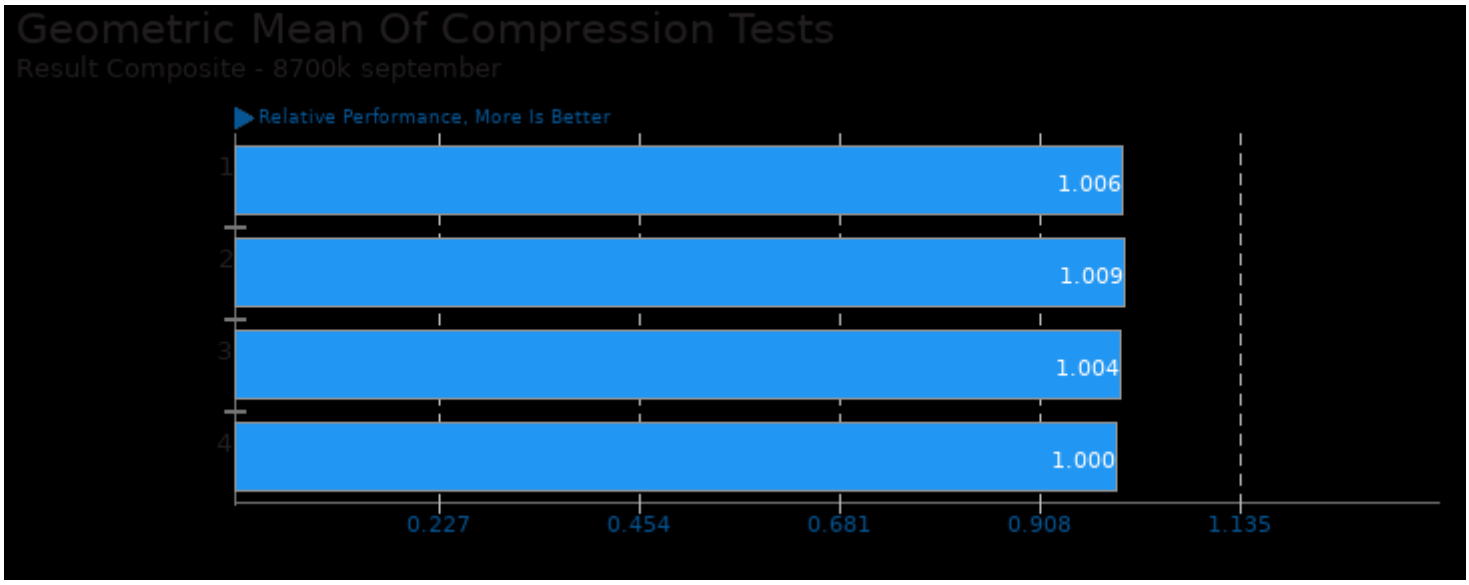


1. (CXX) g++ options: -std=c++11 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth-128 -m64 -ggdb3 -O3 -fipa-pt

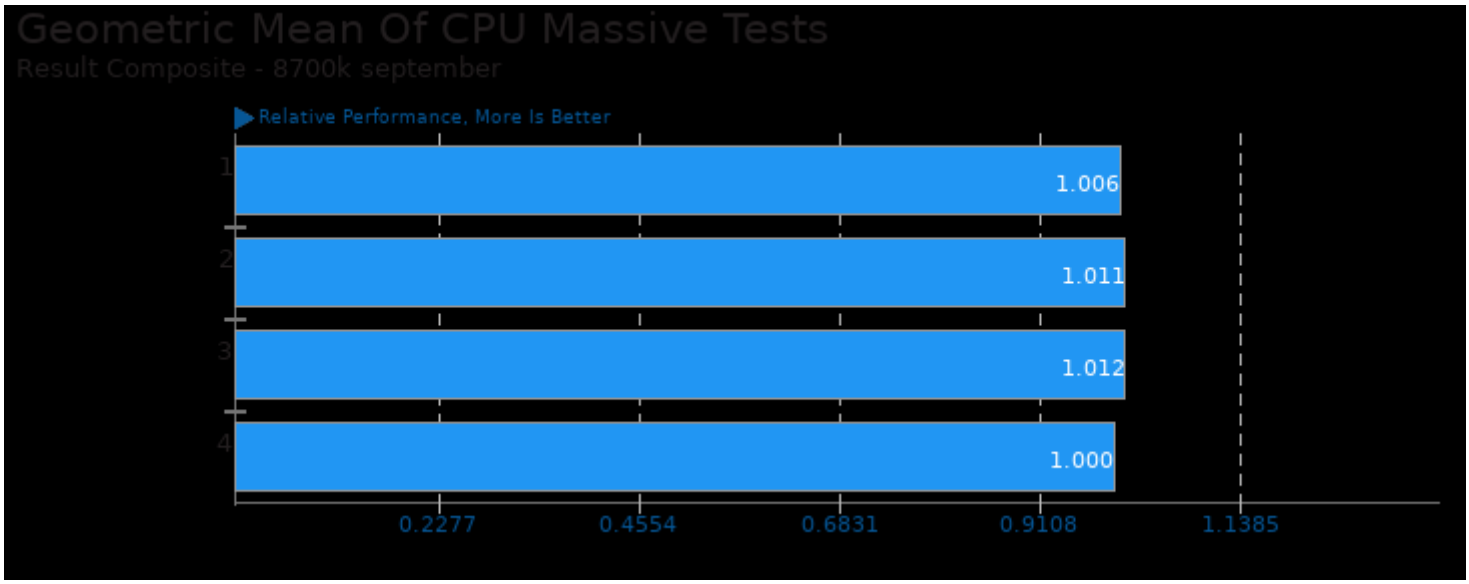
These geometric means are based upon test groupings / test suites for this result file.



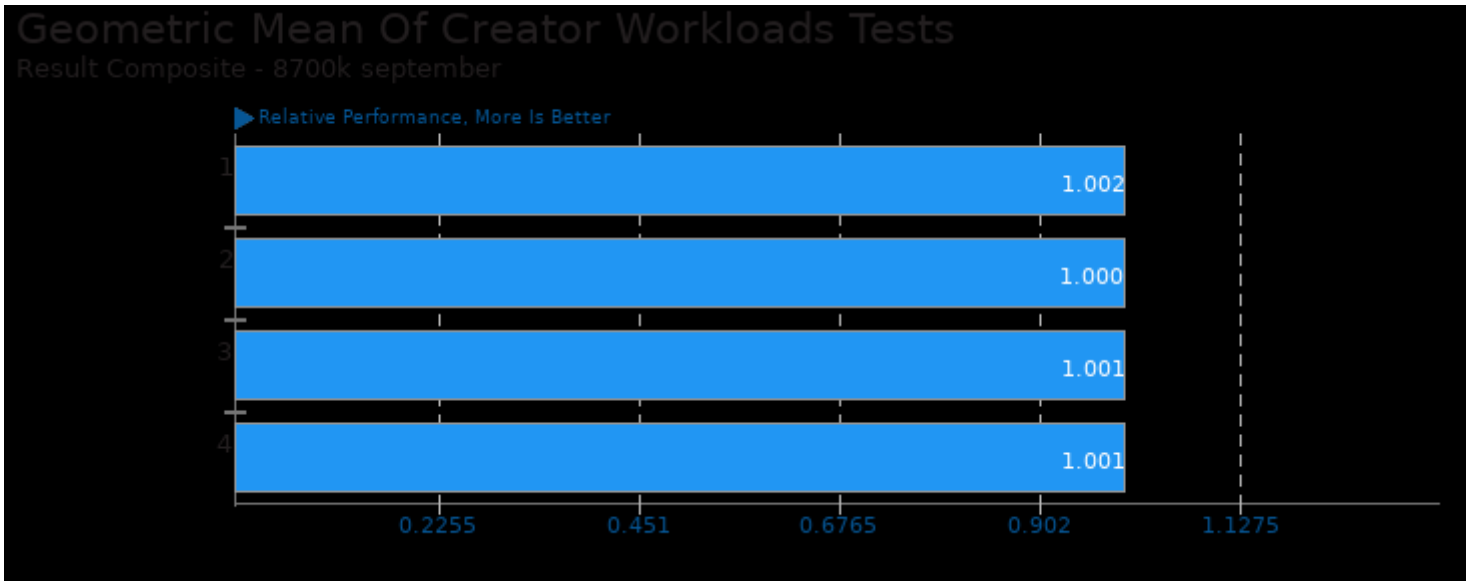
Geometric mean based upon tests: pts/vpxenc, pts/apache, pts/dav1d, pts/compress-zstd, pts/openssl, pts/nginx, pts/svt-av1, pts/gromacs, pts/build-gdb, pts/build-ffmpeg, pts/tachyon and pts/keydb



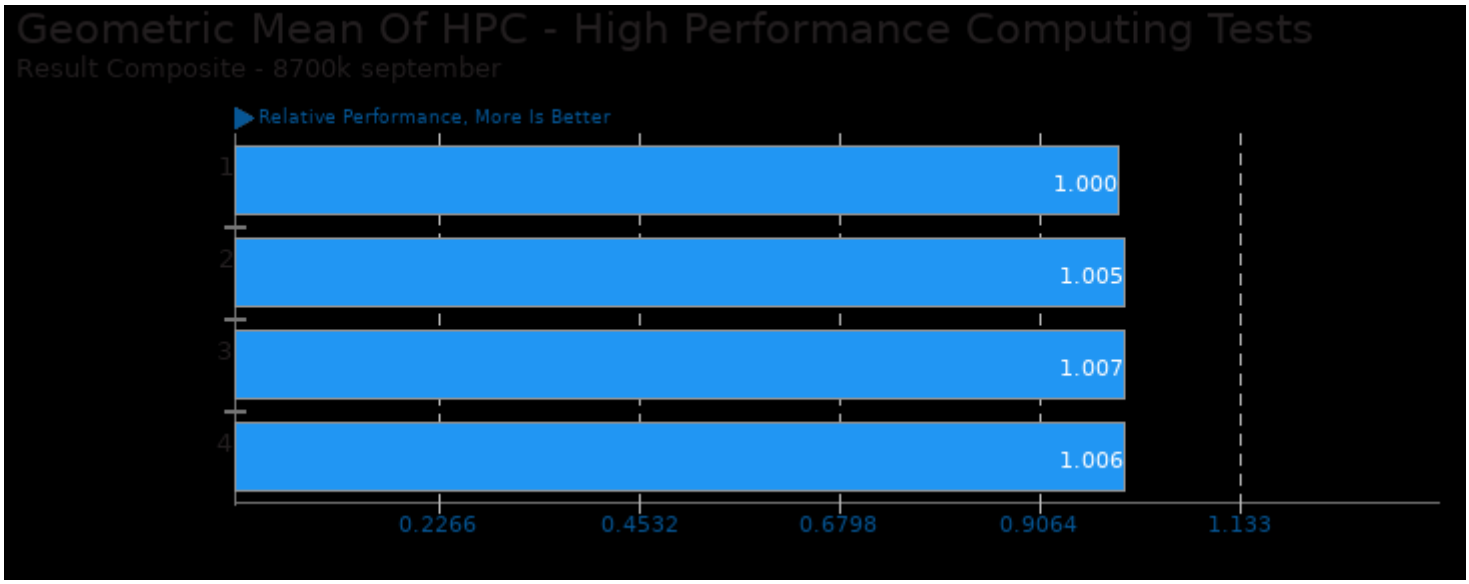
Geometric mean based upon tests: pts/compress-zstd and pts/blosc



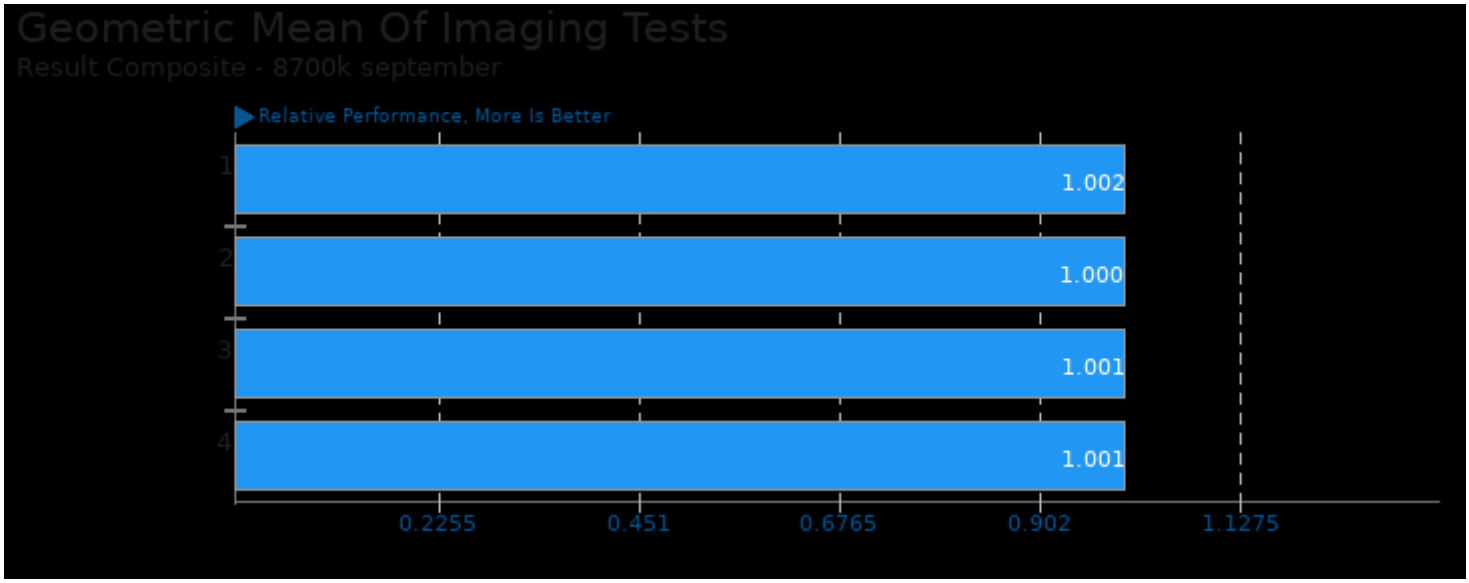
Geometric mean based upon tests: pts/apache, pts/brl-cad, pts/build-gcc, pts/build-linux-kernel, pts/compress-zstd, pts/dav1d, pts/svt-av1, pts/vpxenc, pts/openssl, pts/lczero, pts/nginx, pts/npb, pts/stress-ng, pts/tachyon and pts/renaissance



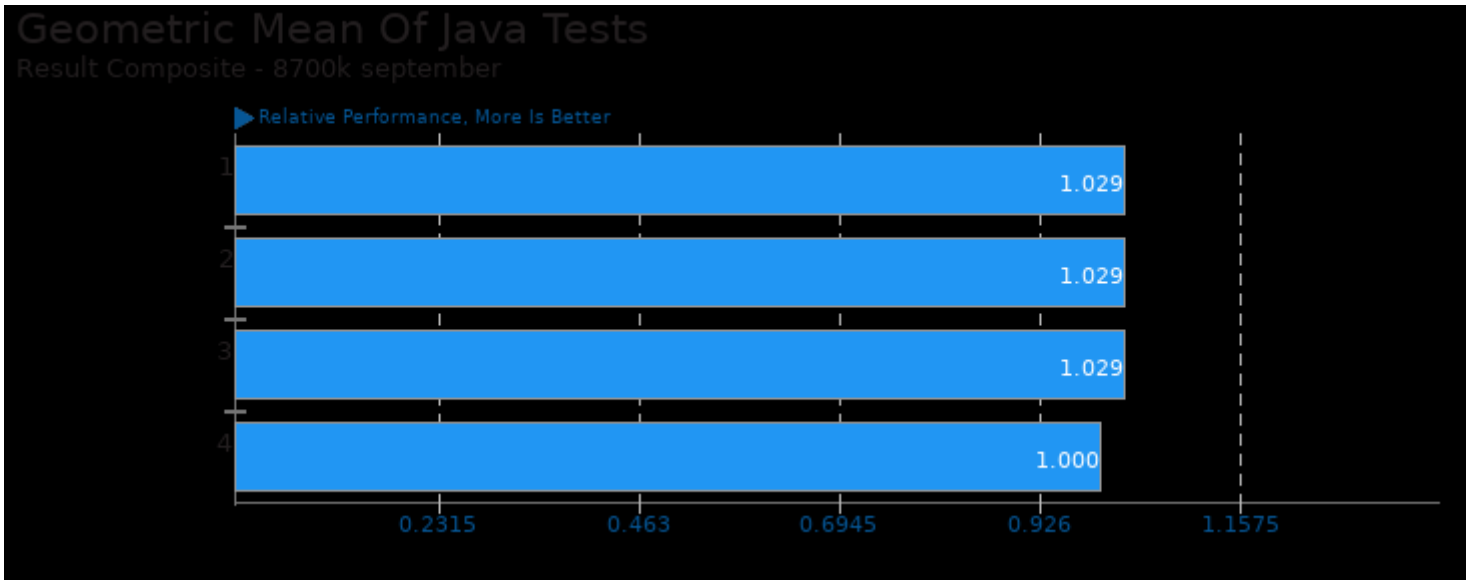
Geometric mean based upon tests: pts/tachyon, pts/yafaray, pts/natron, pts/vpxenc, pts/dav1d, pts/svt-av1, pts/jpegxl, pts/jpegxl-decode, pts/embree, pts/oidn, pts/openvkl, pts/astcenc, pts/synthmark and pts/brl-cad



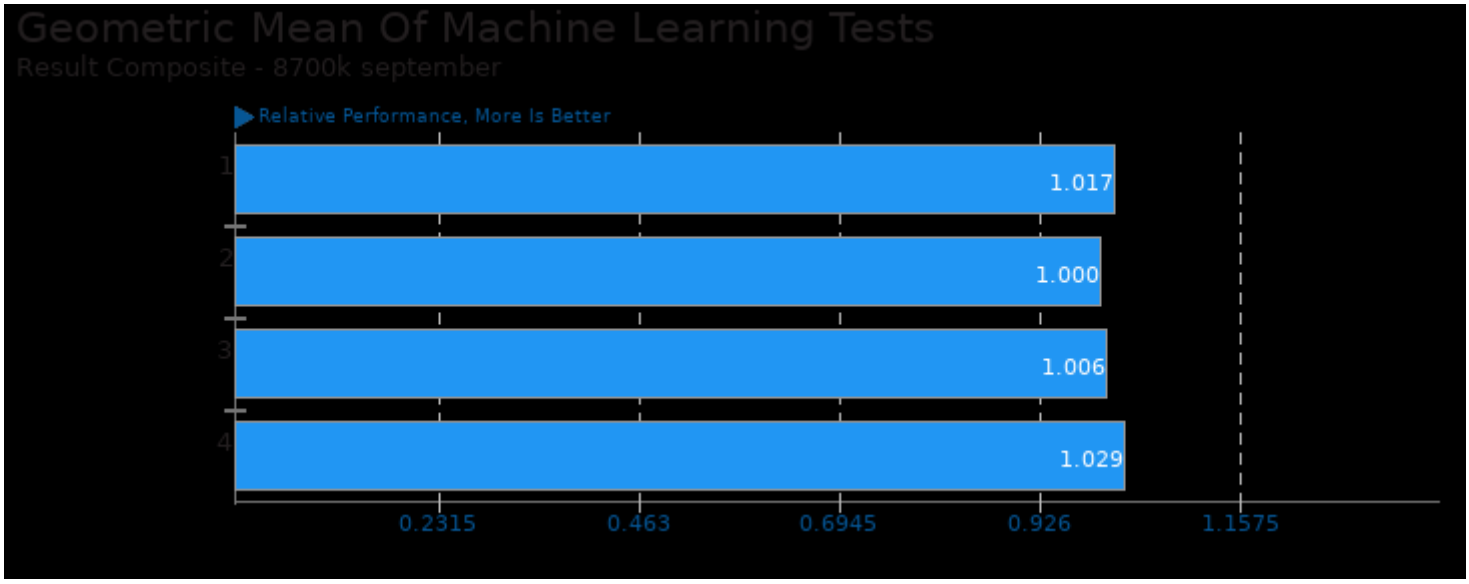
Geometric mean based upon tests: pts/npb, pts/gromacs, pts/mnn, pts/ncnn, pts/tnn, pts/ecp-candle and pts/lczero



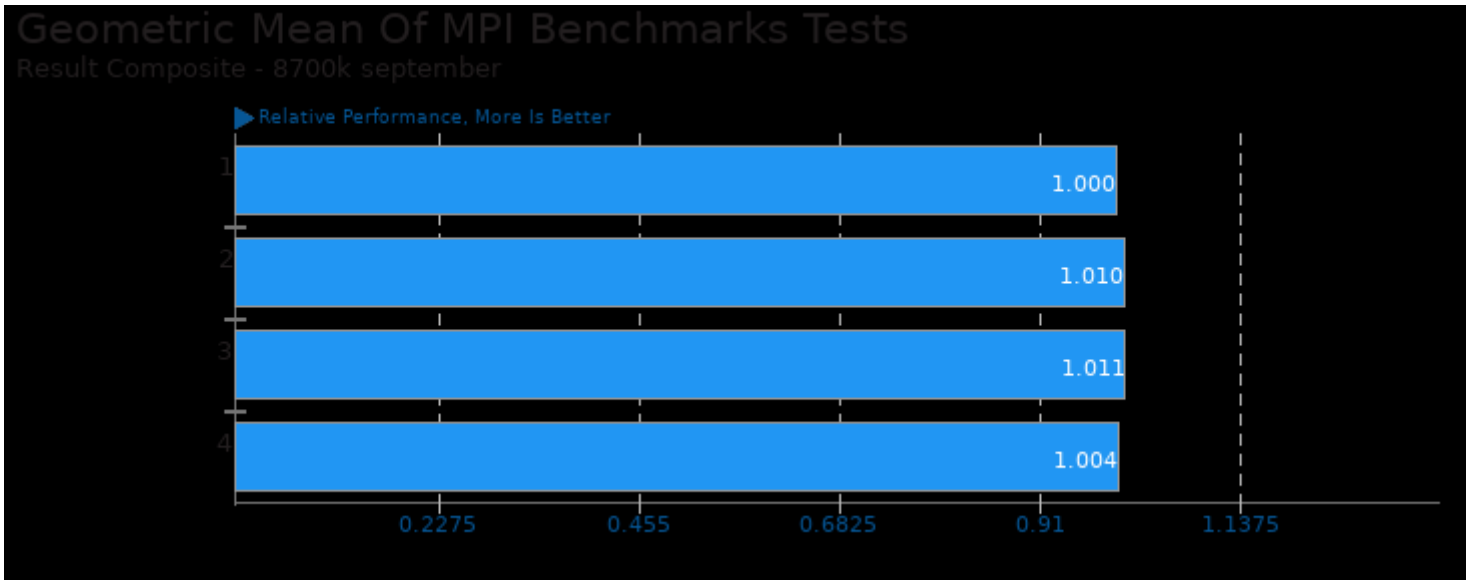
Geometric mean based upon tests: pts/jpegxl and pts/jpegxl-decode



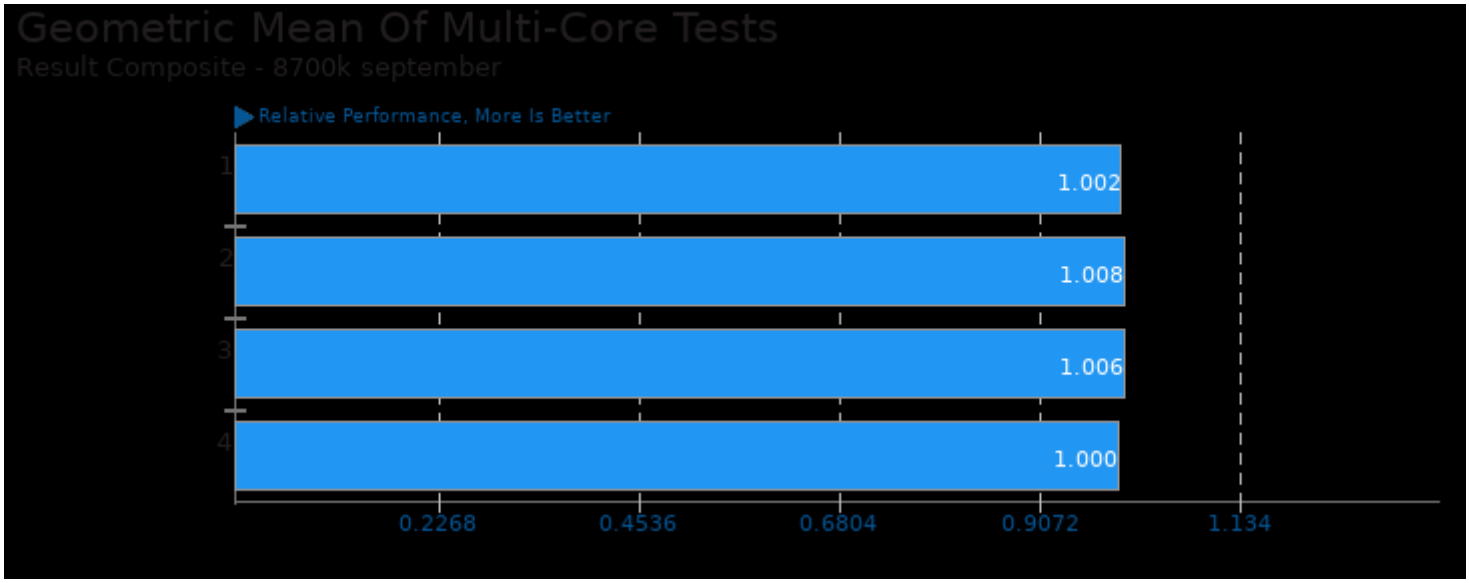
Geometric mean based upon tests: pts/renaissance and pts/cassandra



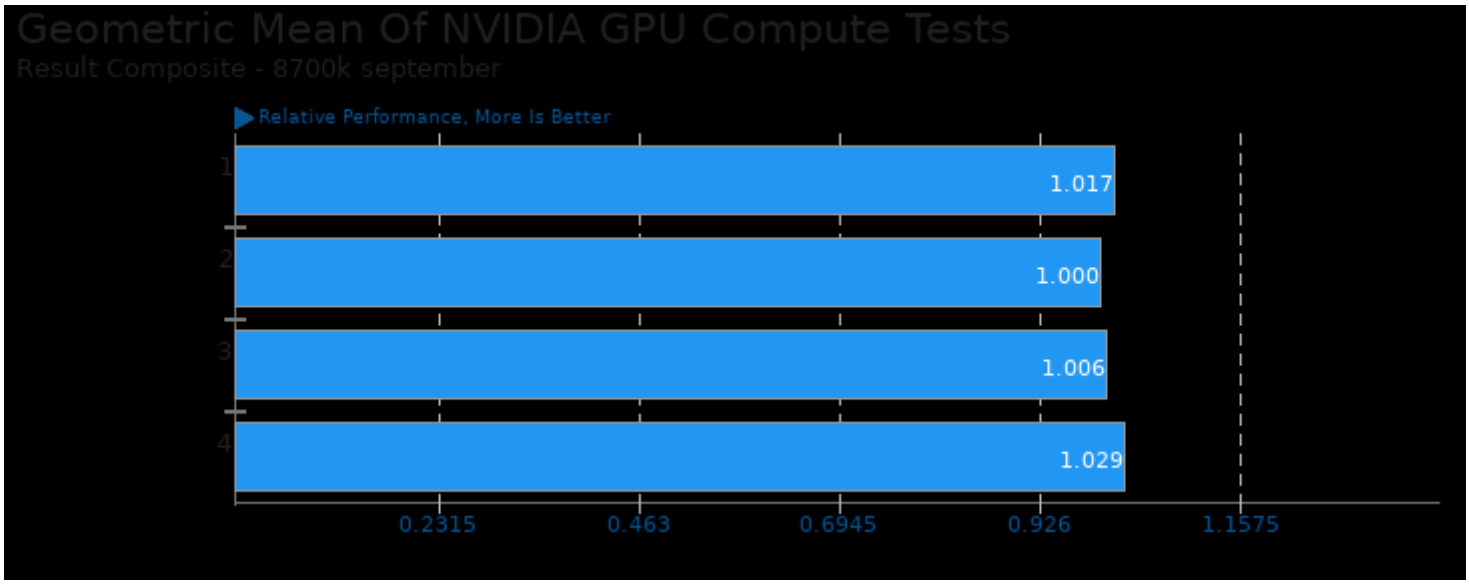
Geometric mean based upon tests: pts/mnn, pts/ncnn, pts/tnn, pts/ecp-candle and pts/lczero



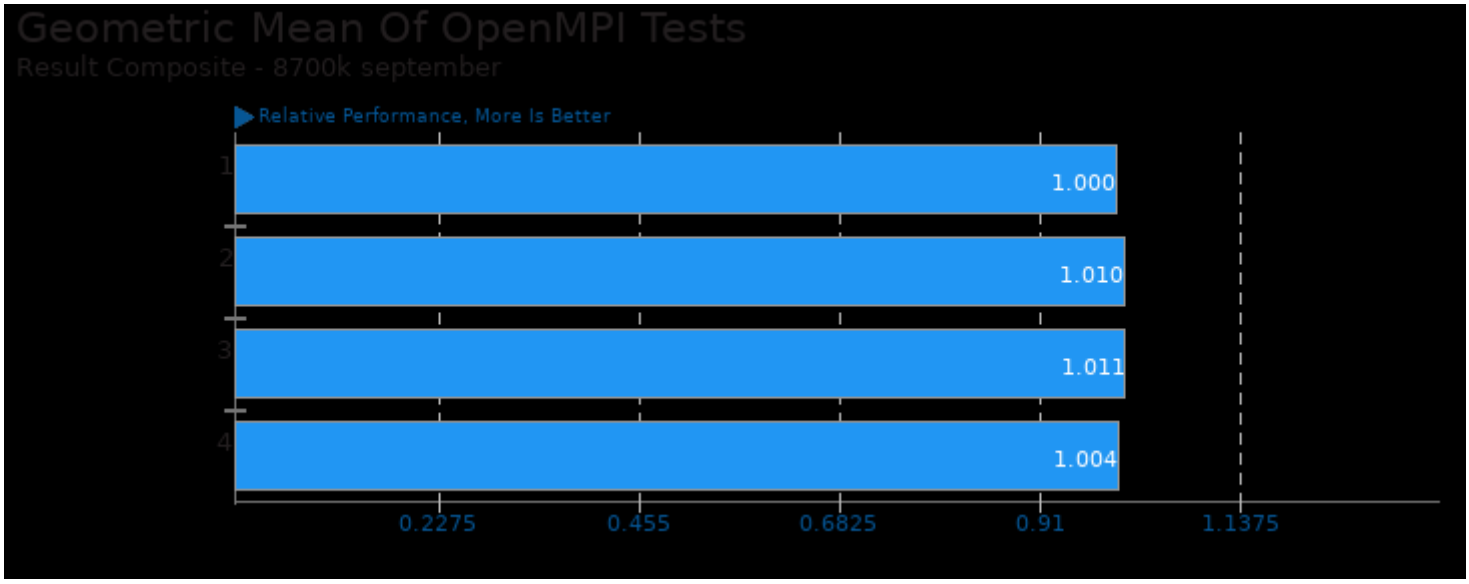
Geometric mean based upon tests: pts/gromacs and pts/npb



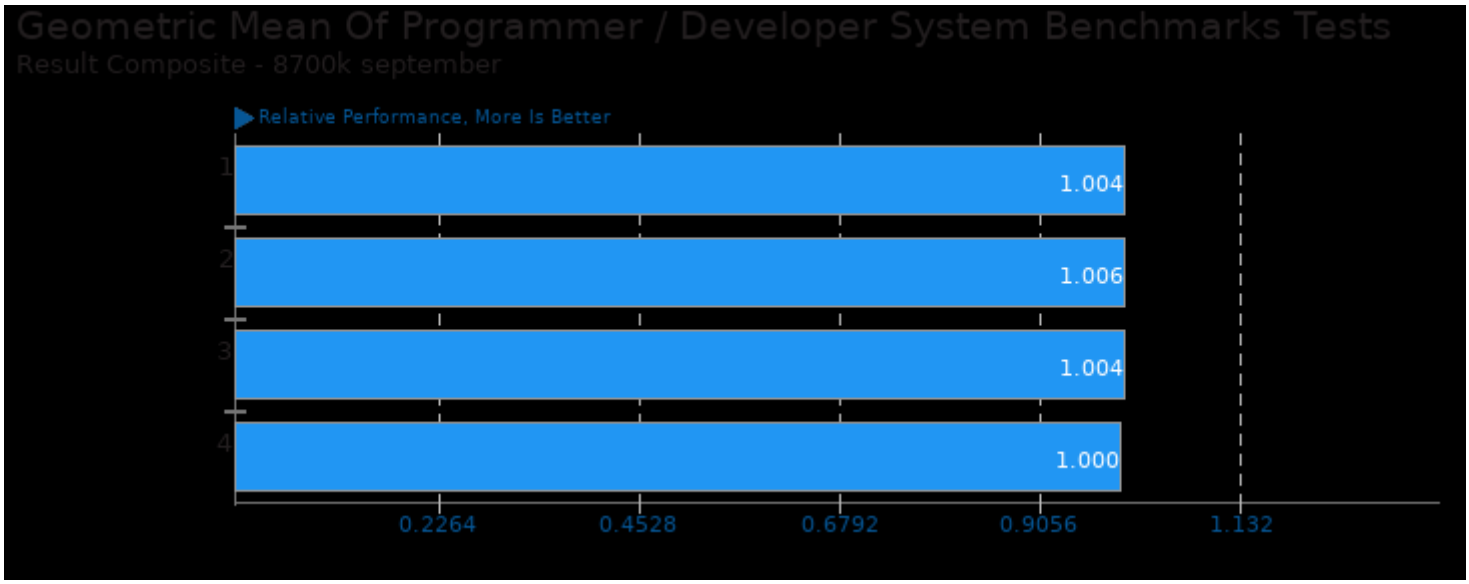
Geometric mean based upon tests: pts/tachyon, pts/yafaray, pts/vpxenc, pts/dav1d, pts/svt-av1, pts/npb, pts/gromacs, pts/compress-zstd, pts/build-linux-kernel, pts/build-gcc, pts/build-gdb, pts/build-ffmpeg, pts/natron, pts/embree, pts/oidn, pts/openvkl and pts/cassandra



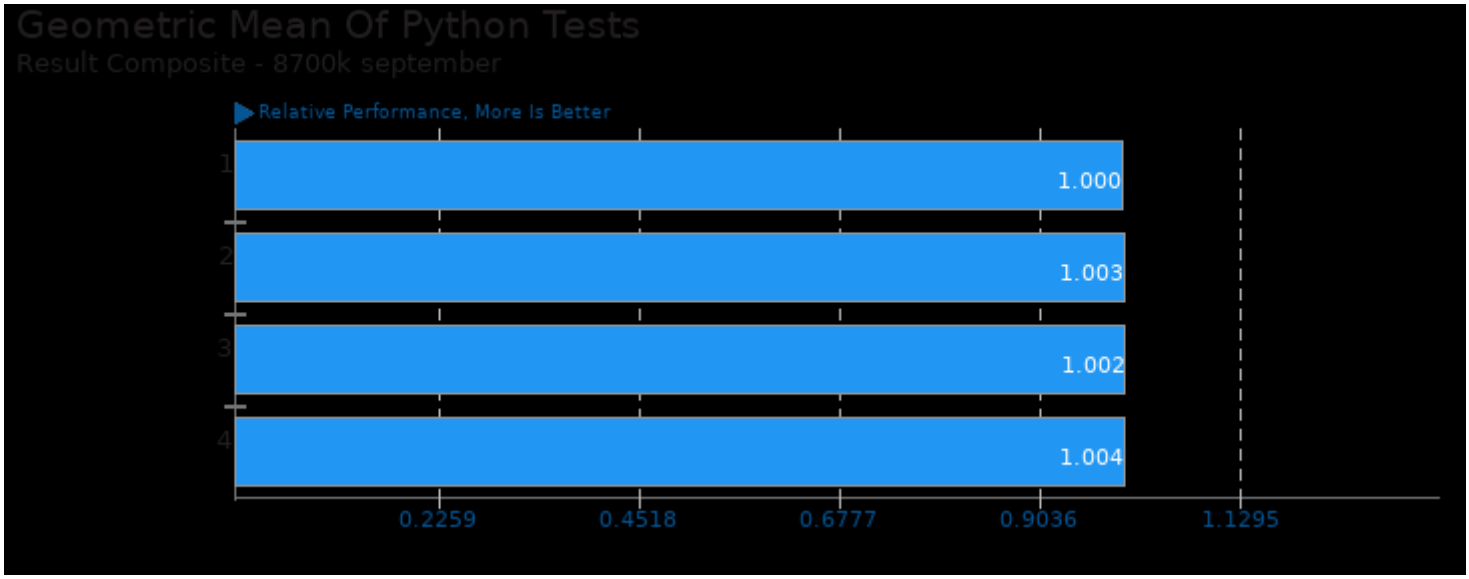
Geometric mean based upon tests: pts/gromacs, pts/lczero and pts/ncnn



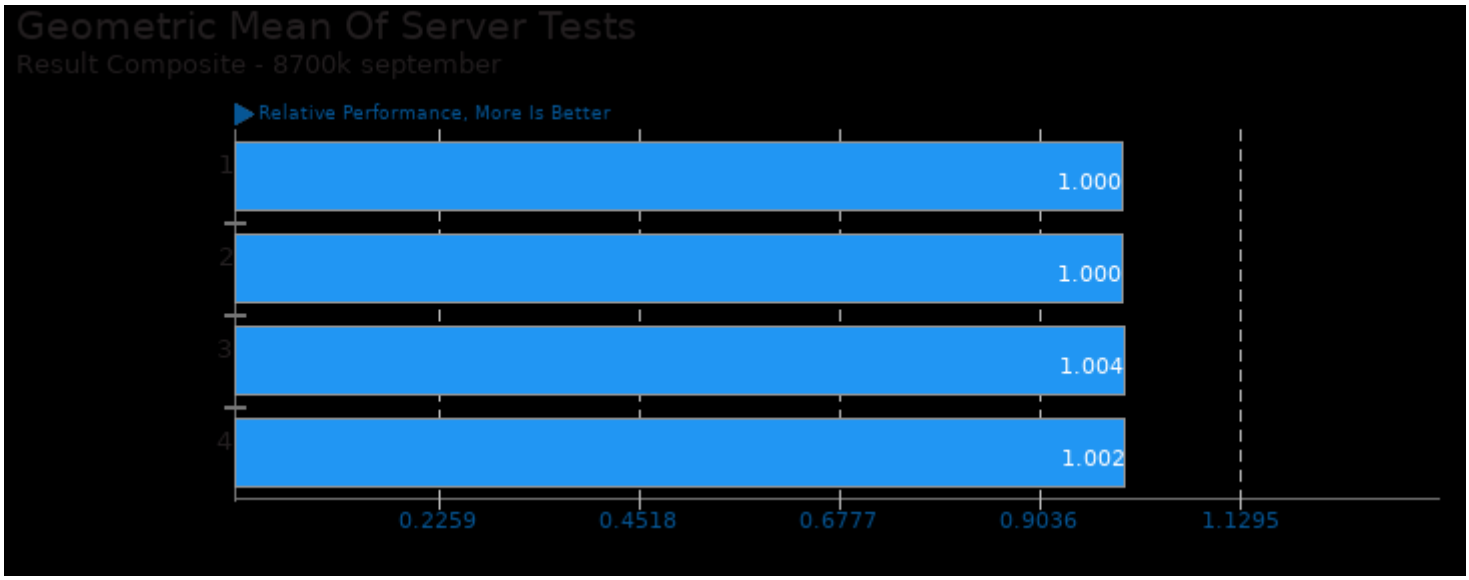
Geometric mean based upon tests: pts/npb and pts/gromacs



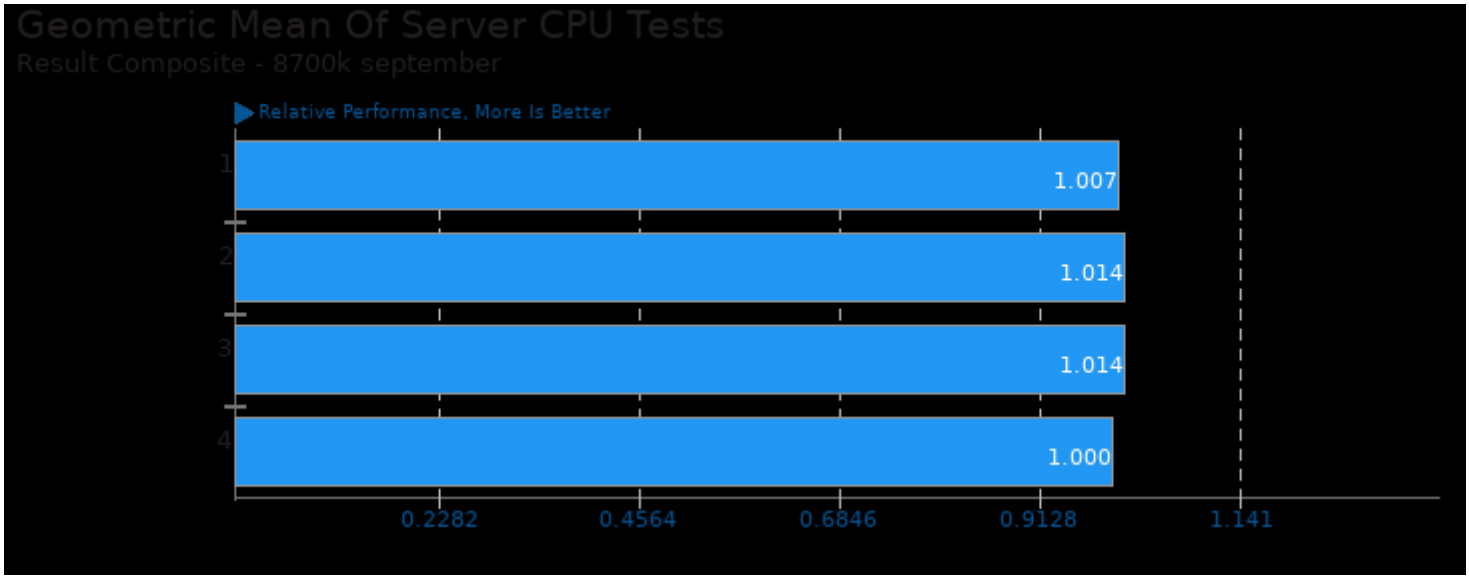
Geometric mean based upon tests: pts/simdjson, pts/blosc, pts/compress-zstd, pts/build-linux-kernel, pts/build-gcc, pts/build-gdb and pts/build-ffmpeg



Geometric mean based upon tests: pts/glmark2, pts/yafaray and pts/ecp-candle



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



Geometric mean based upon tests: pts/npb, pts/renaissance, pts/svt-av1, pts/dav1d, pts/build-gcc, pts/build-linux-kernel, pts/compress-zstd, pts/openssl and pts/stress-ng

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 11:14.