

www.phoronix-test-suite.com

eptc-7f32

AMD EPYC 7F32 8-Core testing with a ASRockRack EPYCD8 (P2.40 BIOS) and ASPEED on Debian 11 via the Phoronix Test Suite.

Automated Executive Summary

AMD EPYC 7F32 had the most wins, coming in first place for 45% of the tests.

Based on the geometric mean of all complete results, the fastest (AMD EPYC 7F32) was 1.019x the speed of the slowest (7F32). EPYC 7F32 was 0.99x the speed of AMD EPYC 7F32 and 7F32 was 0.991x the speed of EPYC 7F32.

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

oneDNN (Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU) at 1.661x
oneDNN (Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU) at 1.545x
OpenFOAM (Input: drivaerFastback, Small Mesh Size - Execution Time) at 1.466x
Mobile Neural Network (Model: mobilenet-v1-1.0) at 1.41x
oneDNN (Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU) at 1.352x
oneDNN (Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU) at 1.346x
Natron (Input: Spaceship) at 1.333x
JPEG XL Decoding libjxl (CPU Threads: All) at 1.239x
C-Blosc (Test: blosclz bitshuffle) at 1.237x

oneDNN (Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU) at 1.209x.

Test Systems:

EPYC 7F32

AMD EPYC 7F32

7F32

Processor: AMD EPYC 7F32 8-Core @ 3.70GHz (8 Cores / 16 Threads), Motherboard: ASRockRack EPYCD8 (P2.40 BIOS), Chipset: AMD Starship/Matisse, Memory: 28GB, Disk: Samsung SSD 970 EVO Plus 250GB, Graphics: ASPEED, Network: 2 x Intel I350

OS: Debian 11, Kernel: 5.10.0-10-amd64 (x86_64), Desktop: GNOME Shell 3.38.6, Display Server: X Server, Compiler: GCC 10.2.1 20210110, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
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-Km9U7s/gcc-10-10.2.1/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-Km9U7s/gcc-10-10.2.1/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
Disk Notes: NONE / errors=remount-ro,relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x8301034
Python Notes: Python 3.9.2
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	EPYC 7F32	AMD EPYC 7F32	7F32
7-Zip Compression - Compression Rating (MIPS)	73076	**74973**	**71377**
Normalized	97.47%	100%	95.2%
7-Zip Compression - D.R (MIPS)	**58662**	58704	**58881**
Normalized	99.63%	99.7%	100%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 4K (FPS)	0.19	0.19	0.19
AOM AV1 - Speed 4 Two-Pass - Bosphorus 4K (FPS)	5.56	**5.67**	**5.51**
Normalized	98.06%	100%	97.18%
AOM AV1 - Speed 6 Realtime - Bosphorus 4K (FPS)	**20.97**	**21.44**	21.33
Normalized	97.81%	100%	99.49%

eptc-7f32

AOM AV1 - Speed 6 Two-Pass - Bosphorus 4K (FPS)	9.74	**9.89**	**9.45**
Normalized	98.48%	100%	95.55%
AOM AV1 - Speed 8 Realtime - Bosphorus 4K (FPS)	**30.22**	**30.97**	30.82
Normalized	97.58%	100%	99.52%
AOM AV1 - Speed 9 Realtime - Bosphorus 4K (FPS)	**41.56**	**42.81**	42.42
Normalized	97.08%	100%	99.09%
AOM AV1 - Speed 10 Realtime - Bosphorus 4K (FPS)	**42.08**	**43.34**	42.49
Normalized	97.09%	100%	98.04%
AOM AV1 - Speed 0 Two-Pass - Bosphorus 1080p (FPS)	0.54	0.54	0.54
AOM AV1 - Speed 4 Two-Pass - Bosphorus 1080p (FPS)	**12.26**	**12.51**	12.34
Normalized	98%	100%	98.64%
AOM AV1 - Speed 6 Realtime - Bosphorus 1080p (FPS)	**43.34**	**42.43**	42.89
Normalized	100%	97.9%	98.96%
AOM AV1 - Speed 6 Two-Pass - Bosphorus 1080p (FPS)	28.29	**28.46**	**27.87**
Normalized	99.4%	100%	97.93%
AOM AV1 - Speed 8 Realtime - Bosphorus 1080p (FPS)	**75.1**	**76.92**	76.16
Normalized	97.63%	100%	99.01%
AOM AV1 - Speed 9 Realtime - Bosphorus 1080p (FPS)	**97.35**	**100.17**	99.91
Normalized	97.18%	100%	99.74%
AOM AV1 - Speed 10 Realtime - Bosphorus 1080p (FPS)	107.35	**102.07**	**108.32**
Normalized	99.1%	94.23%	100%
Blender - BMW27 - CPU-Only (sec)		**149.11**	**148.42**
Normalized		99.54%	100%
BRL-CAD - V.P.M (VGR Performance Metric)		**124747**	**125073**
Normalized		99.74%	100%
C-Blosc - blosclz shuffle (MB/s)	**15058**	15049	**14437**
Normalized	100%	99.94%	95.88%
C-Blosc - blosclz bitshuffle (MB/s)	**5663**	5399	**4579**
Normalized	100%	95.35%	80.87%
Cpuminer-Opt - Magi (kH/s)	**413.8**	**423.63**	422.47
Normalized	97.68%	100%	99.73%
Cpuminer-Opt - x25x (kH/s)	401.99	**387.05**	**410.38**
Normalized	97.96%	94.32%	100%
Cpuminer-Opt - scrypt (kH/s)	145.88	**146.09**	**145.69**
Normalized	99.86%	100%	99.73%
Cpuminer-Opt - Deepcoin (kH/s)	**7495**	**7487**	7488
Normalized	100%	99.91%	99.92%
Cpuminer-Opt - Ringcoin (kH/s)	**1567**	**1612**	1576
Normalized	97.2%	100%	97.74%
Cpuminer-Opt - Blake-2 S (kH/s)	**349500**	348760	**324270**
Normalized	100%	99.79%	92.78%

eptc-7f32

Cpuminer-Opt - Garlicoin (kH/s)	2139	**2123**	**2148**
Normalized	99.6%	98.85%	100%
Cpuminer-Opt - Skeincoin (kH/s)	68290	**68130**	**68400**
Normalized	99.84%	99.61%	100%
Cpuminer-Opt - Myriad-Groestl (kH/s)	**12640**	**12640**	**12630**
Normalized	100%	100%	99.92%
Cpuminer-Opt - LBC, LBRY Credits (kH/s)	**20140**	**20260**	20250
Normalized	99.41%	100%	99.95%
Cpuminer-Opt - Q.S.2.P (kH/s)	**66230**	**66230**	**66260**
Normalized	99.95%	99.95%	100%
Cpuminer-Opt - T.S.2.O (kH/s)	**132280**	132340	**132610**
Normalized	99.75%	99.8%	100%
EnCodec - 3 kbps (sec)		**36.202**	**35.801**
Normalized		98.89%	100%
EnCodec - 6 kbps (sec)		**34.991**	**34.58**
Normalized		98.83%	100%
EnCodec - 24 kbps (sec)		**39.865**	**39.822**
Normalized		99.89%	100%
EnCodec - 1.5 kbps (sec)		**33.965**	**33.419**
Normalized		98.39%	100%
Facebook RocksDB - Rand Read (Op/s)		**39007583**	**38208038**
Normalized		100%	97.95%
Facebook RocksDB - Update Rand (Op/s)		**352075**	**352648**
Normalized		99.84%	100%
Facebook RocksDB - Read While Writing		**1565360**	**1527948**
Normalized		100%	97.61%
Facebook RocksDB - R.R.W.R (Op/s)		**1196904**	**1195887**
Normalized		100%	99.92%
FFmpeg - libx264 - Live (sec)	28.53	**28.16**	**28.64**
Normalized	98.7%	100%	98.32%
FFmpeg - libx264 - Live (FPS)	177.00	**179.34**	**176.34**
Normalized	98.7%	100%	98.33%
FFmpeg - libx265 - Live (sec)	68.46	**68.15**	**68.90**
Normalized	99.55%	100%	98.91%
FFmpeg - libx265 - Live (FPS)	73.77	**74.10**	**73.29**
Normalized	99.55%	100%	98.91%
FFmpeg - libx264 - Upload (sec)	**227.67**	228.158210067	**228.969381263**
Normalized	100%	99.79%	99.43%
FFmpeg - libx264 - Upload (FPS)	**11.09**	11.07	**11.03**
Normalized	100%	99.82%	99.46%
FFmpeg - libx265 - Upload (sec)	176.3322066	**175.58**	**176.342980832**
Normalized	99.57%	100%	99.57%
FFmpeg - libx265 - Upload (FPS)	**14.32**	**14.38**	**14.32**
Normalized	99.58%	100%	99.58%
FFmpeg - libx264 - Platform (sec)	180.15190048	**179.76**	**180.211979224**
Normalized	99.78%	100%	99.75%
FFmpeg - libx264 - Platform (FPS)	42.05	**42.14**	**42.03**
Normalized	99.79%	100%	99.74%
FFmpeg - libx265 - Platform (sec)	253.47	**252.19**	**253.811141688**
Normalized	99.5%	100%	99.36%
FFmpeg - libx265 - Platform (FPS)	29.88	**30.04**	**29.85**
Normalized	99.47%	100%	99.37%
FFmpeg - libx264 - Video On Demand (sec)	**180.64**	**180.54**	180.616513283

eptc-7f32

Normalized	99.94%	100%	99.96%
FFmpeg - libx264 - Video On Demand (FPS)	41.93	41.96	41.94
Normalized	99.93%	100%	99.95%
FFmpeg - libx265 - Video On Demand (sec)	253.56	252.74	253.642923405
Normalized	99.68%	100%	99.64%
FFmpeg - libx265 - Video On Demand (FPS)	29.88	29.97	29.86
Normalized	99.7%	100%	99.63%
FLAC Audio Encoding - WAV To FLAC (sec)	21.343	21.276	21.319
Normalized	99.69%	100%	99.8%
GraphicsMagick - Swirl (Iterations/min)	444	443	444
Normalized	100%	99.77%	100%
GraphicsMagick - Rotate (Iterations/min)	739	739	729
Normalized	100%	100%	98.65%
GraphicsMagick - Sharpen (Iterations/min)	129	130	130
Normalized	99.23%	100%	100%
GraphicsMagick - Enhanced (Iterations/min)	205	206	206
Normalized	99.51%	100%	100%
GraphicsMagick - Resizing (Iterations/min)	1028	1046	1049
Normalized	98%	99.71%	100%
GraphicsMagick - Noise-Gaussian (Iterations/min)	271	271	272
Normalized	99.63%	99.63%	100%
GraphicsMagick - HWB Color Space (Iterations/min)	1184	1195	1226
Normalized	96.57%	97.47%	100%
JPEG XL Decoding libjxl - 1 (MP/s)	43.36	43.72	43.24
Normalized	99.18%	100%	98.9%
JPEG XL Decoding libjxl - All (MP/s)	198.76	246.32	222.05
Normalized	80.69%	100%	90.15%
JPEG XL libjxl - PNG - 80 (MP/s)	8.44	8.71	8.63
Normalized	96.9%	100%	99.08%
JPEG XL libjxl - PNG - 90 (MP/s)	8.26	8.54	8.52
Normalized	96.72%	100%	99.77%
JPEG XL libjxl - JPEG - 80 (MP/s)	8.15	8.43	8.35
Normalized	96.68%	100%	99.05%
JPEG XL libjxl - JPEG - 90 (MP/s)	8.03	8.25	8.22
Normalized	97.33%	100%	99.64%
JPEG XL libjxl - PNG - 100 (MP/s)	0.59	0.59	0.58
Normalized	100%	100%	98.31%
JPEG XL libjxl - JPEG - 100 (MP/s)	0.58	0.58	0.58
libavif avifenc - 0 (sec)	169.538	169.306	167.977
Normalized	99.08%	99.22%	100%
libavif avifenc - 2 (sec)	80.966	80.886	80.504
Normalized	99.43%	99.53%	100%
libavif avifenc - 6 (sec)	7.893	7.856	7.802
Normalized	98.85%	99.31%	100%
libavif avifenc - 6, Lossless (sec)	12.434	12.293	12.235
Normalized	98.4%	99.53%	100%
libavif avifenc - 10, Lossless (sec)	6.421	6.206	6.252
Normalized	96.65%	100%	99.26%
miniBUDE - OpenMP - BM1 (GFInst/s)	270.67	269.522	269.315
Normalized	100%	99.58%	99.5%

miniBUDE - OpenMP - BM1 (Billion Interactions/s)	**10.827**	10.781	**10.773**
Normalized	100%	99.58%	99.5%
miniBUDE - OpenMP - BM2 (GFInst/s)	**271.092**	**270.067**	270.907
Normalized	100%	99.62%	99.93%
miniBUDE - OpenMP - BM2 (Billion Interactions/s)	**10.844**	**10.803**	10.836
Normalized	100%	99.62%	99.93%
Mobile Neural Network - nasnet (ms)		23.653	23.653
Mobile Neural Network - mobilenetV3 (ms)		**3.37**	**3.201**
Normalized		94.99%	100%
Mobile Neural Network - squeezenetv1.1		**5.78**	**6.713**
Normalized		100%	86.1%
Mobile Neural Network - resnet-v2-50 (ms)		**29.525**	**31.285**
Normalized		100%	94.37%
Mobile Neural Network - SqueezeNetV1.0		**9.2**	**10.361**
Normalized		100%	88.79%
Mobile Neural Network - MobileNetV2_224		**5.523**	**6.602**
Normalized		100%	83.66%
Mobile Neural Network - mobilenet-v1-1.0		**4.51**	**6.361**
Normalized		100%	70.9%
Mobile Neural Network - inception-v3 (ms)		**38.689**	**38.883**
Normalized		100%	99.5%
Natron - Spaceship (FPS)		**2.1**	**2.8**
Normalized		75%	100%
Neural Magic DeepSparse - N.D.C.o.b.u.o.l - A.M.S (items/sec)		**6.4357**	**6.3025**
Normalized		100%	97.93%
Neural Magic DeepSparse - N.D.C.o.b.u.o.l - A.M.S (ms/batch)		**619.198**	**627.2384**
Normalized		100%	98.72%
Neural Magic DeepSparse - N.D.C.o.b.u.o.l - S.S.S (items/sec)		**5.3725**	**5.1633**
Normalized		100%	96.11%
Neural Magic DeepSparse - N.D.C.o.b.u.o.l - S.S.S (ms/batch)		**186.1226**	**193.6627**
Normalized		100%	96.11%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - A.M.S (items/sec)		**22.5985**	**22.5733**
Normalized		100%	99.89%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - A.M.S (ms/batch)		**176.8383**	**176.8463**
Normalized		100%	100%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - S.S.S (items/sec)		**13.1116**	**12.8996**
Normalized		100%	98.38%
Neural Magic DeepSparse - N.Q.A.B.b.u.S.1.P - S.S.S (ms/batch)		**76.2557**	**77.5095**
Normalized		100%	98.38%

Neural Magic DeepSparse - C.D.Y.C - A.M.S (items/sec)	**36.801**	**36.2042**
Normalized	100%	98.38%
Neural Magic DeepSparse - C.D.Y.C - A.M.S (ms/batch)	**108.5718**	**110.4165**
Normalized	100%	98.33%
Neural Magic DeepSparse - C.D.Y.C - S.S.S (items/sec)	**26.9827**	**26.7067**
Normalized	100%	98.98%
Neural Magic DeepSparse - C.D.Y.C - S.S.S (ms/batch)	**37.0454**	**37.429**
Normalized	100%	98.98%
Neural Magic DeepSparse - C.C.R.5.I - A.M.S (items/sec)	**70.0202**	**69.4795**
Normalized	100%	99.23%
Neural Magic DeepSparse - C.C.R.5.I - A.M.S (ms/batch)	**57.0733**	**57.5139**
Normalized	100%	99.23%
Neural Magic DeepSparse - C.C.R.5.I - S.S.S (items/sec)	**50.8038**	**49.6558**
Normalized	100%	97.74%
Neural Magic DeepSparse - C.C.R.5.I - S.S.S (ms/batch)	**19.6733**	**20.1274**
Normalized	100%	97.74%
Neural Magic DeepSparse - N.T.C.D.m - A.M.S (items/sec)	**49.9119**	**49.6207**
Normalized	100%	99.42%
Neural Magic DeepSparse - N.T.C.D.m - A.M.S (ms/batch)	**80.0283**	**80.5192**
Normalized	100%	99.39%
Neural Magic DeepSparse - N.T.C.D.m - S.S.S (items/sec)	**36.759**	**35.5064**
Normalized	100%	96.59%
Neural Magic DeepSparse - N.T.C.D.m - S.S.S (ms/batch)	**27.1948**	**28.1543**
Normalized	100%	96.59%
Neural Magic DeepSparse - N.T.C.B.b.u.S - A.M.S (items/sec)	**25.2198**	**25.1166**
Normalized	100%	99.59%
Neural Magic DeepSparse - N.T.C.B.b.u.S - A.M.S (ms/batch)	**158.3902**	**159.0606**
Normalized	100%	99.58%
Neural Magic DeepSparse - N.T.C.B.b.u.S - S.S.S (items/sec)	**18.221**	**18.1954**
Normalized	100%	99.86%
Neural Magic DeepSparse - N.T.C.B.b.u.S - S.S.S (ms/batch)	**54.8712**	**54.949**
Normalized	100%	99.86%
Neural Magic DeepSparse - N.T.C.B.b.u.c - A.M.S (items/sec)	**6.3581**	**6.3119**
Normalized	100%	99.27%

Neural Magic DeepSparse - N.T.C.B.b.u.c - A.M.S (ms/batch)		623.1128	626.9997
Normalized		100%	99.38%
Neural Magic DeepSparse - N.T.C.B.b.u.c - S.S.S (items/sec)		5.3593	5.08
Normalized		100%	94.79%
Neural Magic DeepSparse - N.T.C.B.b.u.c - S.S.S (ms/batch)		186.5811	196.8418
Normalized		100%	94.79%
nginx - 20 (Reqs/sec)		46605	46954
Normalized		99.26%	100%
nginx - 100 (Reqs/sec)		51131	50822
Normalized		100%	99.4%
nginx - 200 (Reqs/sec)		51950	52189
Normalized		99.54%	100%
nginx - 500 (Reqs/sec)		52056	52631
Normalized		98.91%	100%
nginx - 1000 (Reqs/sec)		50516	51272
Normalized		98.53%	100%
oneDNN - IP Shapes 1D - f32 - CPU (ms)	3.48079	3.49229	3.48771
Normalized	100%	99.67%	99.8%
oneDNN - IP Shapes 3D - f32 - CPU (ms)	8.67144	7.35671	11.365
Normalized	84.84%	100%	64.73%
oneDNN - IP Shapes 1D - u8s8f32 - CPU (ms)	2.93735		2.70369
Normalized	92.05%		100%
oneDNN - IP Shapes 3D - u8s8f32 - CPU (ms)	0.790351		0.775961
Normalized	98.18%		100%
oneDNN - C.B.S.A - f32 - CPU (ms)	9.55502	8.11567	13.4819
Normalized	84.94%	100%	60.2%
oneDNN - D.B.s - f32 - CPU (ms)	9.60921	9.7682	10.0398
Normalized	100%	98.37%	95.71%
oneDNN - D.B.s - f32 - CPU (ms)	6.50887	6.54697	6.54145
Normalized	100%	99.42%	99.5%
oneDNN - C.B.S.A - u8s8f32 - CPU (ms)	12.2832		14.6766
Normalized	100%		83.69%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	3.93432		3.94084
Normalized	100%		99.83%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	4.85806		4.86267
Normalized	100%		99.91%
oneDNN - R.N.N.T - f32 - CPU (ms)	5083	4813	6477
Normalized	94.69%	100%	74.31%
oneDNN - R.N.N.I - f32 - CPU (ms)	1921	1892	2084
Normalized	98.49%	100%	90.78%
oneDNN - R.N.N.T - u8s8f32 - CPU (ms)	5252		6350
Normalized	100%		82.71%
oneDNN - R.N.N.I - u8s8f32 - CPU (ms)	1881		2184
Normalized	100%		86.13%
oneDNN - M.M.B.S.T - f32 - CPU (ms)	1.28	1.26884	1.26277
Normalized	98.65%	99.52%	100%
oneDNN - R.N.N.T - bf16bf16bf16 - CPU (ms)	5155		6968
Normalized	100%		73.98%
oneDNN - R.N.N.I - bf16bf16bf16 - CPU (ms)	1865		2028
Normalized	100%		91.97%

eptc-7f32

oneDNN - M.M.B.S.T - u8s8f32 - CPU (ms)	**1.42225**		**1.38568**
Normalized	97.43%		100%
OpenFOAM - d.S.M.S - Mesh Time (sec)	42.034545	**41.187216**	**44.371991**
Normalized	97.98%	100%	92.82%
OpenFOAM - d.S.M.S - Execution Time (sec)	212.63009	**184.11155**	**269.88197**
Normalized	86.59%	100%	68.22%
OpenRadioss - Bumper Beam (sec)	173.95	**174.04**	**173.25**
Normalized	99.6%	99.55%	100%
OpenRadioss - C.P.D.T (sec)	130.17	**122.99**	**135.8**
Normalized	94.48%	100%	90.57%
OpenRadioss - B.S.o.W (sec)	**330.91**	331.32	**334.58**
Normalized	100%	99.88%	98.9%
OpenRadioss - R.O.R.S.I (sec)	187.5	**188.19**	**186.74**
Normalized	99.59%	99.23%	100%
OpenRadioss - I.a.F.S.I.D.C (sec)	638.29	**627.35**	**659.67**
Normalized	98.29%	100%	95.1%
OpenVINO - F.D.F - CPU (FPS)		**2.03**	**2.04**
Normalized		99.51%	100%
OpenVINO - F.D.F - CPU (ms)		**1958**	**1954**
Normalized		99.8%	100%
OpenVINO - P.D.F - CPU (FPS)		**1.55**	**1.6**
Normalized		96.88%	100%
OpenVINO - P.D.F - CPU (ms)		**2554**	**2491**
Normalized		97.51%	100%
OpenVINO - P.D.F - CPU (FPS)		**1.53**	**1.62**
Normalized		94.44%	100%
OpenVINO - P.D.F - CPU (ms)		**2583**	**2456**
Normalized		95.08%	100%
OpenVINO - V.D.F - CPU (FPS)		**162.3**	**165.72**
Normalized		97.94%	100%
OpenVINO - V.D.F - CPU (ms)		**24.63**	**24.12**
Normalized		97.93%	100%
OpenVINO - F.D.F.I - CPU (FPS)		**2.71**	**2.73**
Normalized		99.27%	100%
OpenVINO - F.D.F.I - CPU (ms)		**1468**	**1461**
Normalized		99.53%	100%
OpenVINO - V.D.F.I - CPU (FPS)		**219.4**	**220.62**
Normalized		99.45%	100%
OpenVINO - V.D.F.I - CPU (ms)		**18.22**	**18.12**
Normalized		99.45%	100%
OpenVINO - W.P.D.F - CPU (FPS)		**212.74**	**215.66**
Normalized		98.65%	100%
OpenVINO - W.P.D.F - CPU (ms)		**18.79**	**18.53**
Normalized		98.62%	100%
OpenVINO - M.T.E.T.D.F - CPU (FPS)		**24**	**24.91**
Normalized		96.35%	100%
OpenVINO - M.T.E.T.D.F - CPU (ms)		**166.48**	**160.49**
Normalized		96.4%	100%
OpenVINO - W.P.D.F.I - CPU (FPS)		**267.05**	**268.87**
Normalized		99.32%	100%
OpenVINO - W.P.D.F.I - CPU (ms)		**29.95**	**29.74**
Normalized		99.3%	100%
OpenVINO - P.V.B.D.F - CPU (FPS)		**224.93**	**232.94**

Normalized		96.56%	100%
OpenVINO - P.V.B.D.F - CPU (ms)		17.77	17.15
Normalized		96.51%	100%
OpenVINO - A.G.R.R.0.F - CPU (FPS)		5763	5812
Normalized		99.16%	100%
OpenVINO - A.G.R.R.0.F - CPU (ms)		1.38	1.37
Normalized		99.28%	100%
OpenVINO - A.G.R.R.0.F.I - CPU (FPS)		6432	6444
Normalized		99.83%	100%
OpenVINO - A.G.R.R.0.F.I - CPU (ms)		1.24	1.23
Normalized		99.19%	100%
Scikit-Learn - MNIST Dataset (sec)		119.569	119.78
Normalized		100%	99.82%
Scikit-Learn - TSNE MNIST Dataset (sec)		38.601	39.073
Normalized		100%	98.79%
Scikit-Learn - S.R.P.1.I (sec)		185.087	186.351
Normalized		100%	99.32%
SMHasher - wyhash (MiB/sec)	21044	21041	21041
Normalized	100%	99.99%	99.99%
SMHasher - wyhash (cycles/hash)	28.387	28.387	28.387
SMHasher - SHA3-256 (MiB/sec)	136.17	136.22	136.24
Normalized	99.95%	99.99%	100%
SMHasher - SHA3-256 (cycles/hash)	2844	2849	2840
Normalized	99.89%	99.71%	100%
SMHasher - Spooky32 (MiB/sec)	13215	13216	13220
Normalized	99.96%	99.97%	100%
SMHasher - Spooky32 (cycles/hash)	56.219	55.921	56.139
Normalized	99.47%	100%	99.61%
SMHasher - fasthash32 (MiB/sec)	6028	6028	6027
Normalized	100%	100%	99.99%
SMHasher - fasthash32 (cycles/hash)	40.676	40.684	40.686
Normalized	100%	99.98%	99.98%
SMHasher - FarmHash128 (MiB/sec)	14312	14313	14308
Normalized	99.99%	100%	99.97%
SMHasher - FarmHash128 (cycles/hash)	70.29	70.29	70.387
Normalized	100%	100%	99.86%
SMHasher - t1ha2_atonce (MiB/sec)	14595	14583	14594
Normalized	100%	99.92%	99.99%
SMHasher - t1ha2_atonce (cycles/hash)	38.503	38.503	38.503
SMHasher - F.x.A (MiB/sec)	24495	24385	24497
Normalized	99.99%	99.54%	100%
SMHasher - F.x.A (cycles/hash)	47.677	47.677	47.677
SMHasher - t.x (MiB/sec)	59490	59287	60753
Normalized	97.92%	97.59%	100%
SMHasher - t.x (cycles/hash)	37.774	37.774	37.774
SMHasher - M.x.A.N (MiB/sec)	34313	34206	34311
Normalized	100%	99.69%	99.99%
SMHasher - M.x.A.N (cycles/hash)	63.122	63.073	63.111
Normalized	99.92%	100%	99.94%
spaCy - en_core_web_lg (tokens/sec)		11288	11197
Normalized		100%	99.19%
spaCy - en_core_web_trf (tokens/sec)		618	632
Normalized		97.78%	100%

eptc-7f32

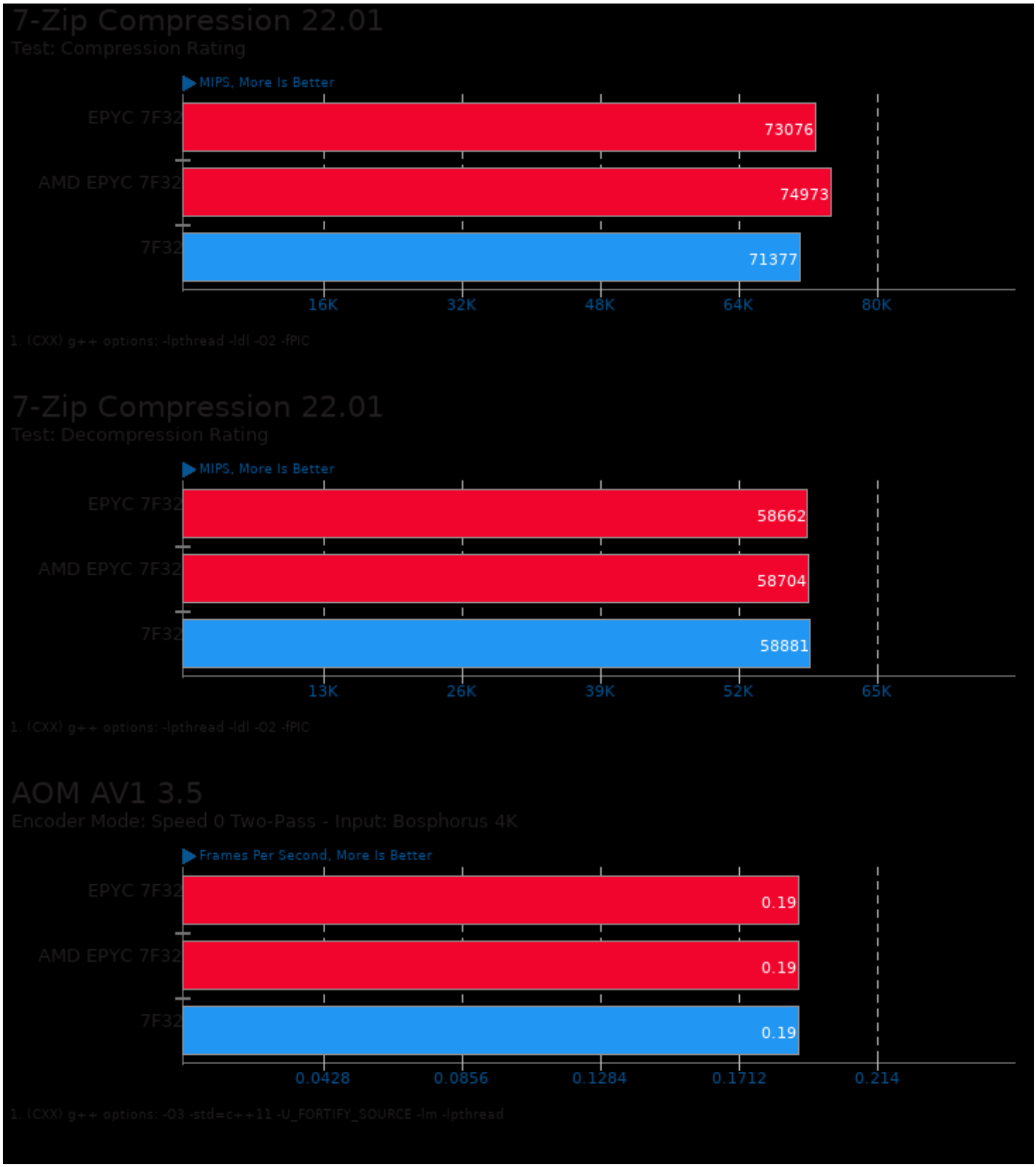
srsRAN - OFDM_Test (Samples / Second)	**115600000**	**116100000**	115900000
Normalized	99.57%	100%	99.83%
srsRAN - 4.P.1.P.M.6.Q (eNb Mb/s)	**328.5**	**327.5**	327.7
Normalized	100%	99.7%	99.76%
srsRAN - 4.P.1.P.M.6.Q (UE Mb/s)	133.3	**133.4**	**132.6**
Normalized	99.93%	100%	99.4%
srsRAN - 4.P.1.P.S.6.Q (eNb Mb/s)	**328.3**	**329.5**	328.8
Normalized	99.64%	100%	99.79%
srsRAN - 4.P.1.P.S.6.Q (UE Mb/s)	**144.6**	144.4	**143.3**
Normalized	100%	99.86%	99.1%
srsRAN - 4.P.1.P.M.2.Q (eNb Mb/s)	**353.7**	**355.1**	354.9
Normalized	99.61%	100%	99.94%
srsRAN - 4.P.1.P.M.2.Q (UE Mb/s)	**143.3**	**143.3**	**142.5**
Normalized	100%	100%	99.44%
srsRAN - 4.P.1.P.S.2.Q (eNb Mb/s)	**353.7**	**354**	**354**
Normalized	99.92%	100%	100%
srsRAN - 4.P.1.P.S.2.Q (UE Mb/s)	152.3	**152.5**	**151.5**
Normalized	99.87%	100%	99.34%
srsRAN - 5.P.T.5.P.S.6.Q (eNb Mb/s)	**95.1**	95.3	**95.4**
Normalized	99.69%	99.9%	100%
srsRAN - 5.P.T.5.P.S.6.Q (UE Mb/s)	**53.5**	**53.6**	**53.6**
Normalized	99.81%	100%	100%
Stress-NG - MMAP (Bogo Ops/s)		**141.82**	**144.76**
Normalized		97.97%	100%
Stress-NG - NUMA (Bogo Ops/s)		**236.71**	**236.87**
Normalized		99.93%	100%
Stress-NG - Futex (Bogo Ops/s)		**2310980**	**2404426**
Normalized		96.11%	100%
Stress-NG - MEMFD (Bogo Ops/s)		**371.54**	**385.73**
Normalized		96.32%	100%
Stress-NG - Mutex (Bogo Ops/s)		**5679683**	**5617446**
Normalized		100%	98.9%
Stress-NG - Atomic (Bogo Ops/s)		**392426**	**392156**
Normalized		100%	99.93%
Stress-NG - Crypto (Bogo Ops/s)		**13694**	**13609**
Normalized		100%	99.38%
Stress-NG - Malloc (Bogo Ops/s)		**8923252**	**8973005**
Normalized		99.45%	100%
Stress-NG - Forking (Bogo Ops/s)		**22867**	**23802**
Normalized		96.07%	100%
Stress-NG - IO_uring (Bogo Ops/s)		**4365**	**4452**
Normalized		98.04%	100%
Stress-NG - SENDFILE (Bogo Ops/s)		**150426**	**149917**
Normalized		100%	99.66%
Stress-NG - CPU Cache (Bogo Ops/s)		**85.33**	**96.63**
Normalized		88.31%	100%
Stress-NG - CPU Stress (Bogo Ops/s)		**18123**	**18710**
Normalized		96.86%	100%
Stress-NG - Semaphores (Bogo Ops/s)		**1194195**	**1192572**
Normalized		100%	99.86%
Stress-NG - Matrix Math (Bogo Ops/s)		**35044**	**35440**
Normalized		98.88%	100%
Stress-NG - Vector Math (Bogo Ops/s)		**39578**	**39496**

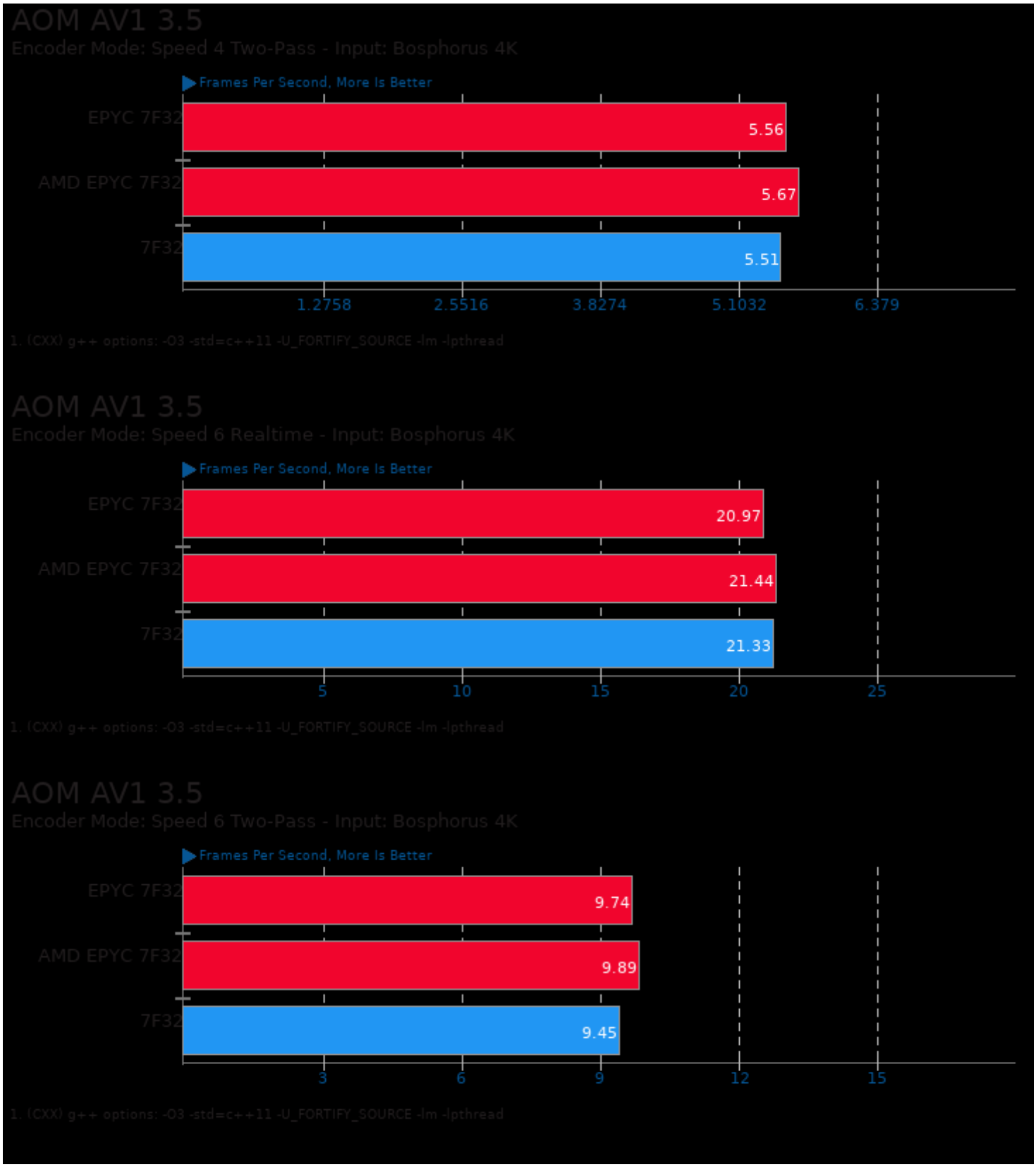
eptc-7f32

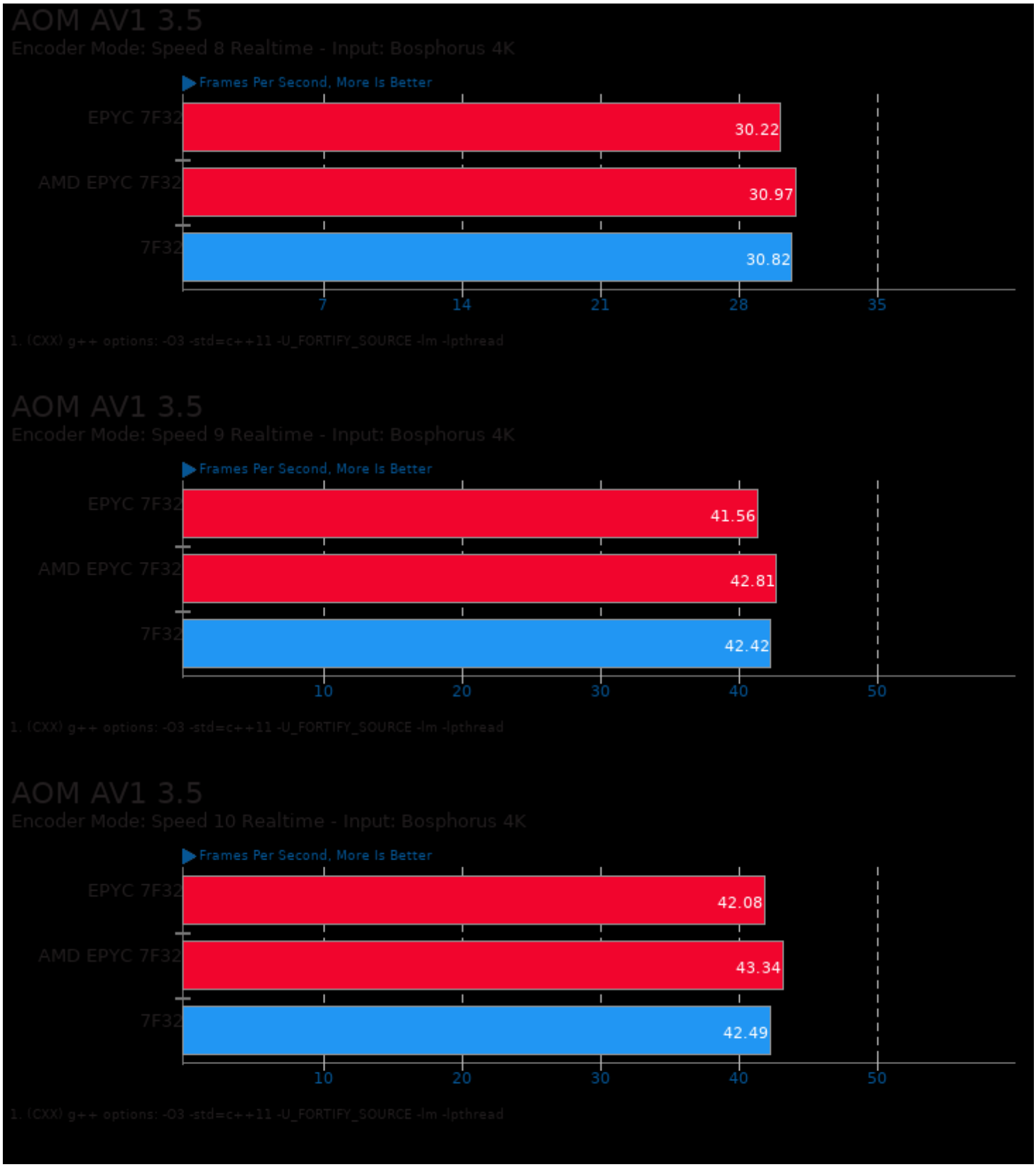
Normalized		100%	99.79%
Stress-NG - Memory Copying (Bogo Ops/s)		1919	1983
Normalized		96.76%	100%
Stress-NG - Socket Activity (Bogo Ops/s)		5665	5728
Normalized		98.89%	100%
Stress-NG - Context Switching (Bogo Ops/s)		5247399	5036771
Normalized		100%	95.99%
Stress-NG - G.C.S.F (Bogo Ops/s)		1327261	1299520
Normalized		100%	97.91%
Stress-NG - G.Q.D.S (Bogo Ops/s)		134.03	132.57
Normalized		100%	98.91%
Stress-NG - S.V.M.P (Bogo Ops/s)		3150571	3167586
Normalized		99.46%	100%
TensorFlow - CPU - 16 - AlexNet	53.09		50.79
Normalized	100%		95.67%
TensorFlow - CPU - 32 - AlexNet	65.36		59.61
Normalized	100%		91.2%
TensorFlow - CPU - 64 - AlexNet	74.8		70.71
Normalized	100%		94.53%
TensorFlow - CPU - 256 - AlexNet	82.48		78.62
Normalized	100%		95.32%
TensorFlow - CPU - 512 - AlexNet	83.98		80.98
Normalized	100%		96.43%
TensorFlow - CPU - 16 - GoogLeNet (images/sec)	32.89		29.73
Normalized	100%		90.39%
TensorFlow - CPU - 16 - ResNet-50 (images/sec)	9.98		9.12
Normalized	100%		91.38%
TensorFlow - CPU - 32 - GoogLeNet (images/sec)	32.58		30.75
Normalized	100%		94.38%
TensorFlow - CPU - 32 - ResNet-50 (images/sec)	10.22		9.4
Normalized	100%		91.98%
TensorFlow - CPU - 64 - GoogLeNet (images/sec)	32.75		31.39
Normalized	100%		95.85%
TensorFlow - CPU - 64 - ResNet-50 (images/sec)	11.08		10.36
Normalized	100%		93.5%
TensorFlow - CPU - 256 - GoogLeNet (images/sec)	34.99		33.15
Normalized	100%		94.74%
TensorFlow - CPU - 256 - ResNet-50 (images/sec)	12.67		12.57
Normalized	100%		99.21%
Timed CPython Compilation - Default (sec)	19.15	19.027	19.147
Normalized	99.36%	100%	99.37%
Timed CPython Compilation - R.B.P.L.O	337.768	338.978	340.302
Normalized	100%	99.64%	99.26%

eptc-7f32

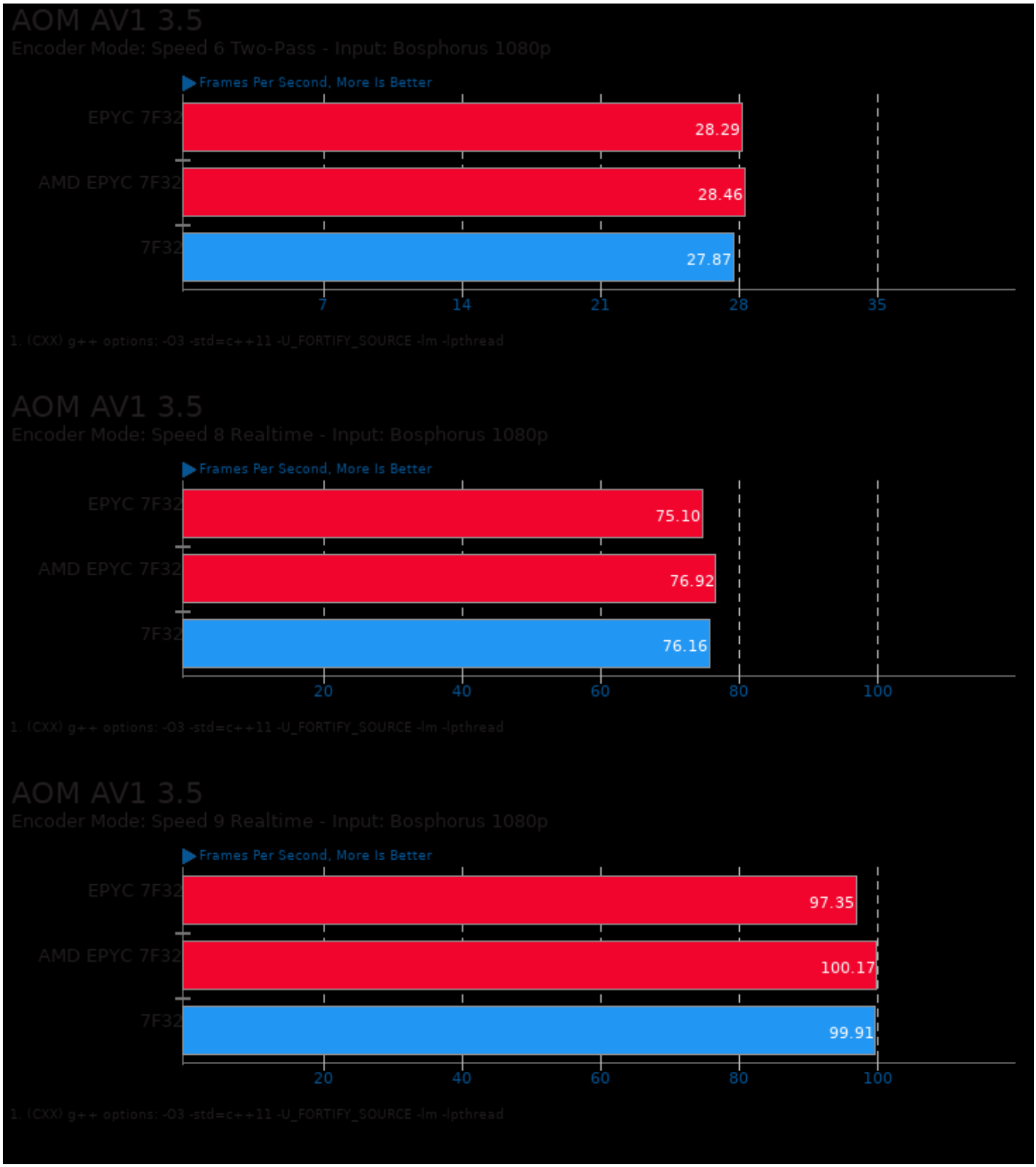
Timed Erlang/OTP Compilation - Time To Compile (sec)	120.664	118.859	119.788
Normalized	98.5%	100%	99.22%
Timed Node.js Compilation - Time To Compile (sec)	550.805	549.975	554.104
Normalized	99.85%	100%	99.25%
Timed PHP Compilation - Time To Compile (sec)	65.041	65.201	65.101
Normalized	100%	99.75%	99.91%
Unpacking The Linux Kernel - linux-5.19.tar.xz (sec)	7.832	7.814	7.896
Normalized	99.77%	100%	98.96%
WebP Image Encode - Default (MP/s)	15.80	15.83	15.81
Normalized	99.81%	100%	99.87%
WebP Image Encode - Quality 100 (MP/s)	9.90	9.93	9.92
Normalized	99.7%	100%	99.9%
WebP Image Encode - Q.1.L (MP/s)	1.46	1.46	1.45
Normalized	100%	100%	99.32%
WebP Image Encode - Q.1.H.C (MP/s)	3.18	3.18	3.19
Normalized	99.69%	99.69%	100%
WebP Image Encode - Q.1.L.H.C (MP/s)	0.58	0.58	0.58
WebP2 Image Encode - Default (MP/s)	6.29	6.22	6.25
Normalized	100%	98.89%	99.36%
WebP2 Image Encode - Q.7.C.E.7 (MP/s)	0.12	0.12	0.12
WebP2 Image Encode - Q.9.C.E.7 (MP/s)	0.05	0.05	0.05
WebP2 Image Encode - Q.1.C.E.5 (MP/s)	3.25	3.25	3.25
WebP2 Image Encode - Q.1.L.C (MP/s)	0.01	0.01	0.01
Xmrig - Monero - 1M (H/s)	7090	7304	7299
Normalized	97.07%	100%	99.93%
Xmrig - Wownero - 1M (H/s)	7488	7636	7619
Normalized	98.06%	100%	99.77%
Y-Cruncher - 1B (sec)	45.22	46.211	46.501
Normalized	100%	97.86%	97.25%
Y-Cruncher - 500M (sec)	22.892	21.633	21.766
Normalized	94.5%	100%	99.39%

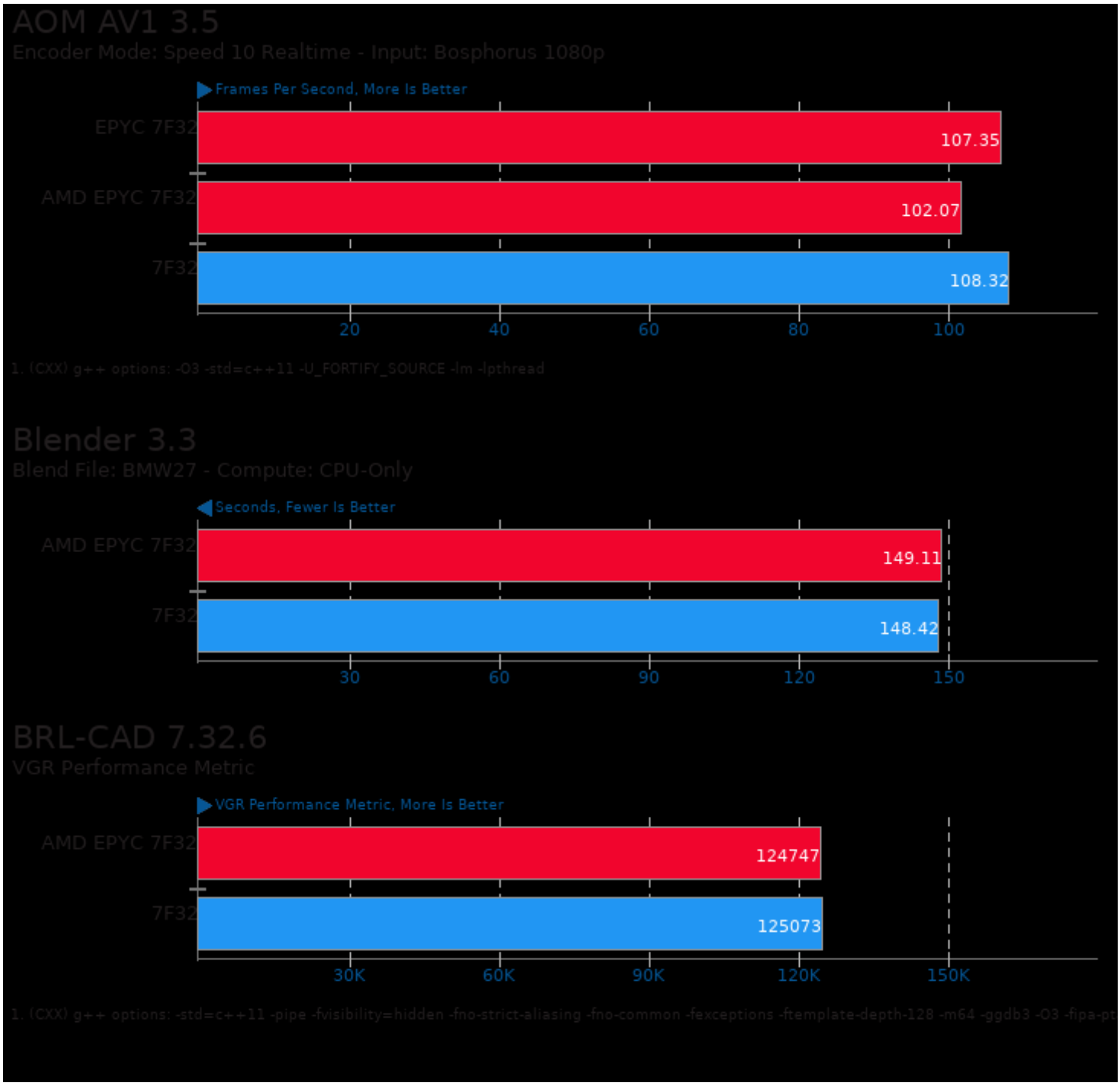

7-Zip Compression 22.01
Test: Compression Rating
MIPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
73076
74973
71377
16K
32K
48K
64K
80K
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC
7-Zip Compression 22.01
Test: Decompression Rating
MIPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
58662
58704
58881
13K
26K
39K
52K
65K
1. (CXX) g++ options: -lpthread -ldl -O2 -fPIC
AOM AV1 3.5
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
0.19
0.19
0.19
0.0428
0.0856
0.1284
0.1712
0.214
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread


AOM AV1 3.5
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
5.56
5.67
5.51
1.2758
2.5516
3.8274
5.1032
6.379
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
20.97
21.44
21.33
5
10
15
20
25
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
9.74
9.89
9.45
3
6
9
12
15
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread


AOM AV1 3.5
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
30.22
30.97
30.82
7
14
21
28
35
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
41.56
42.81
42.42
10
20
30
40
50
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 4K
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
42.08
43.34
42.49
10
20
30
40
50
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

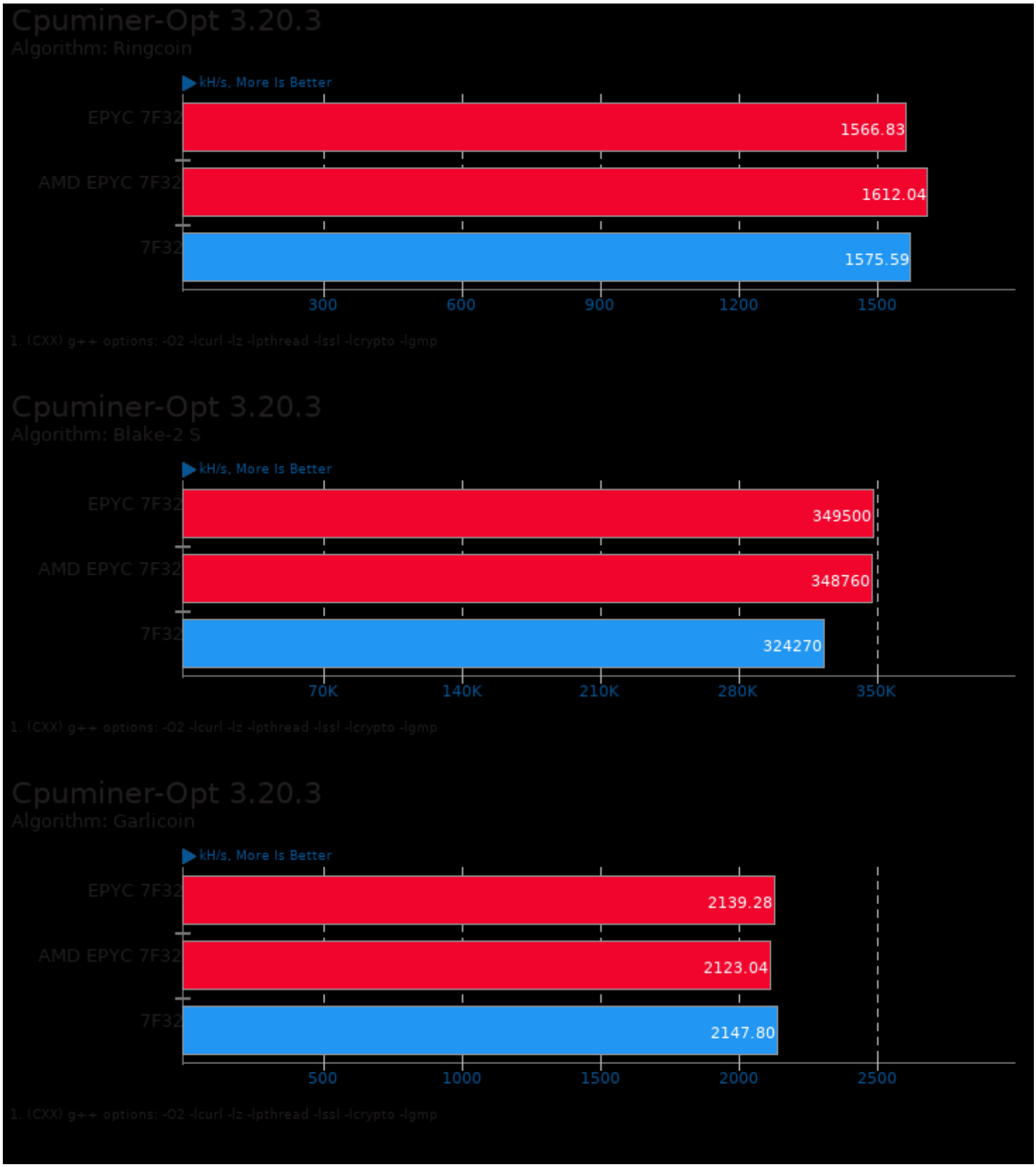

AOM AV1 3.5
Encoder Mode: Speed 0 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
0.54
0.54
0.54
0.1215
0.243
0.3645
0.486
0.6075
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 4 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
12.26
12.51
12.34
3
6
9
12
15
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 6 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
43.34
42.43
42.89
10
20
30
40
50
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread

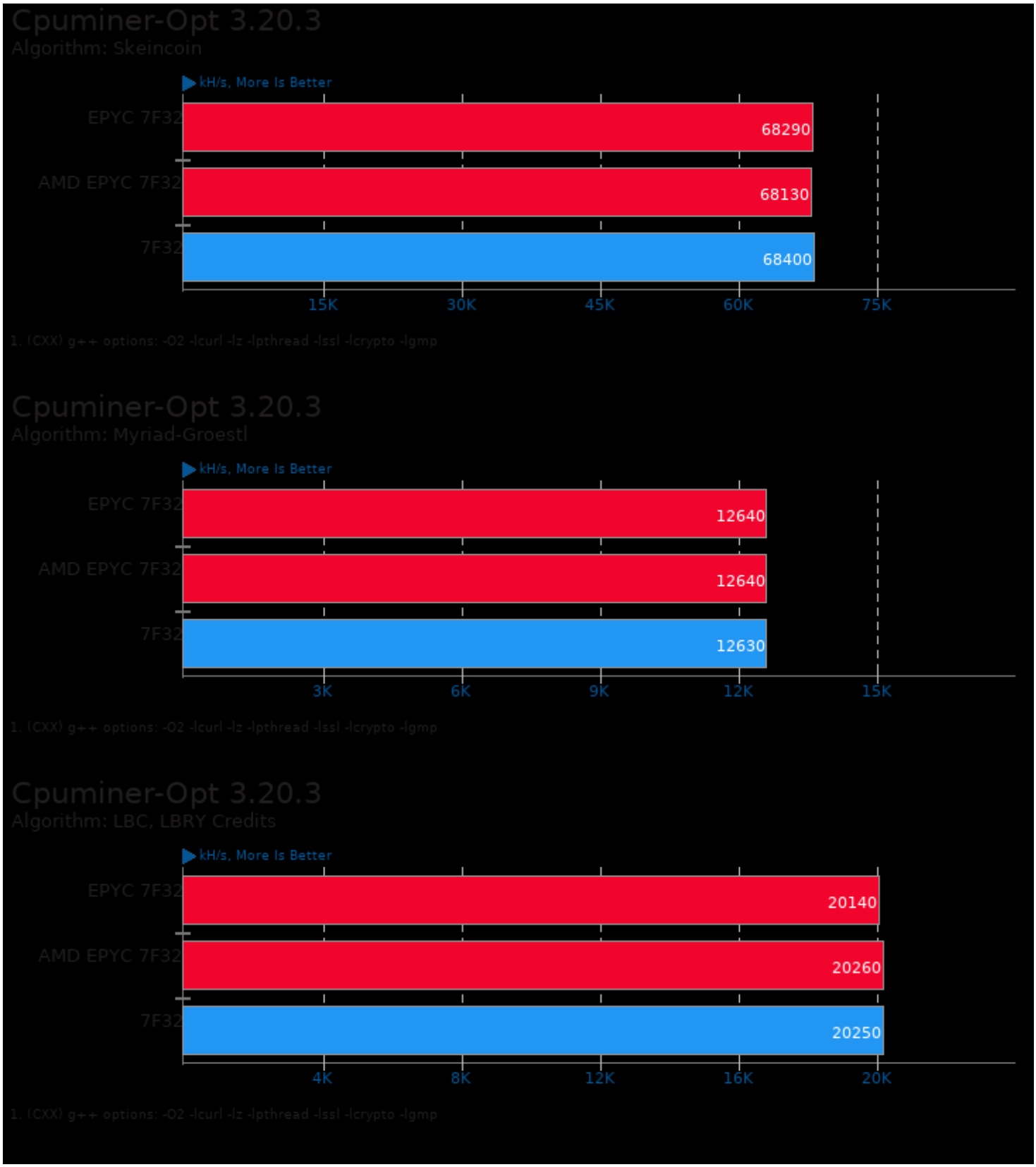

AOM AV1 3.5
Encoder Mode: Speed 6 Two-Pass - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
28.29
28.46
27.87
7
14
21
28
35
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 8 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
75.10
76.92
76.16
20
40
60
80
100
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
AOM AV1 3.5
Encoder Mode: Speed 9 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
97.35
100.17
99.91
20
40
60
80
100
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread


AOM AV1 3.5
Encoder Mode: Speed 10 Realtime - Input: Bosphorus 1080p
Frames Per Second, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
107.35
102.07
108.32
20
40
60
80
100
1. (CXX) g++ options: -O3 -std=c++11 -U_FORTIFY_SOURCE -lm -lpthread
Blender 3.3
Blend File: BMW27 - Compute: CPU-Only
Seconds, Fewer Is Better
AMD EPYC 7F32
7F32
149.11
148.42
30
60
90
120
150
BRL-CAD 7.32.6
VGR Performance Metric
VGR Performance Metric, More Is Better
AMD EPYC 7F32
7F32
124747
125073
30K
60K
90K
120K
150K
1. (CXX) g++ options: -std=c++11 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth-128 -m64 -ggdb3 -O3 -fipa-pt

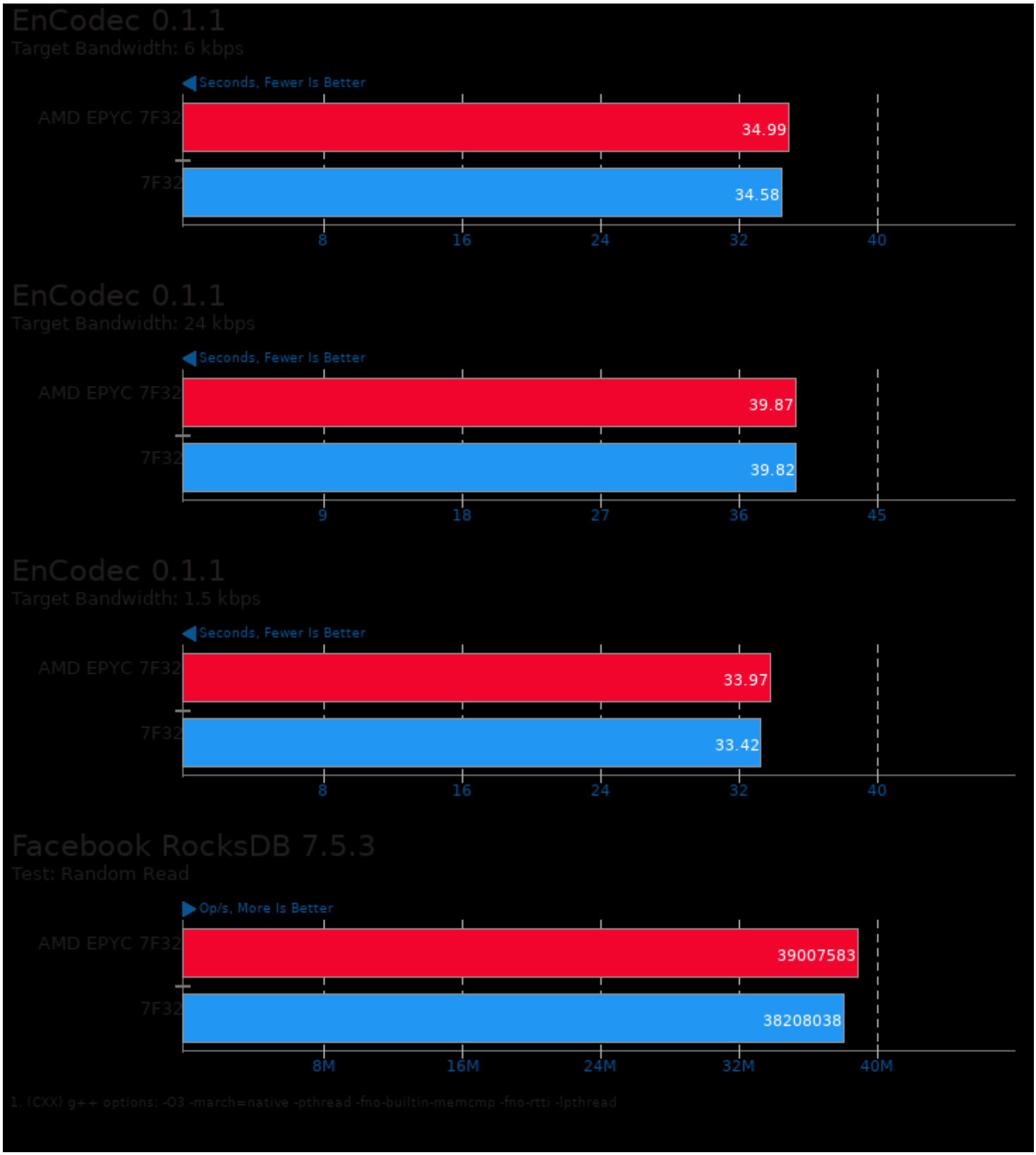

C-Blosc 2.3
Test: blosclz shuffle
MB/s, More Is Better
EPYC 7F32
15057.9
AMD EPYC 7F32
15048.7
7F32
14437.4
3K
6K
9K
12K
15K
1. (CC) gcc options: -std=gnu99 -O3 -lrt -pthread -lm
C-Blosc 2.3
Test: blosclz bitshuffle
MB/s, More Is Better
EPYC 7F32
5662.8
AMD EPYC 7F32
5399.4
7F32
4579.4
1200
2400
3600
4800
6000
1. (CC) gcc options: -std=gnu99 -O3 -lrt -pthread -lm
Cpuminer-Opt 3.20.3
Algorithm: Magi
kH/s, More Is Better
EPYC 7F32
413.80
AMD EPYC 7F32
423.63
7F32
422.47
90
180
270
360
450
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

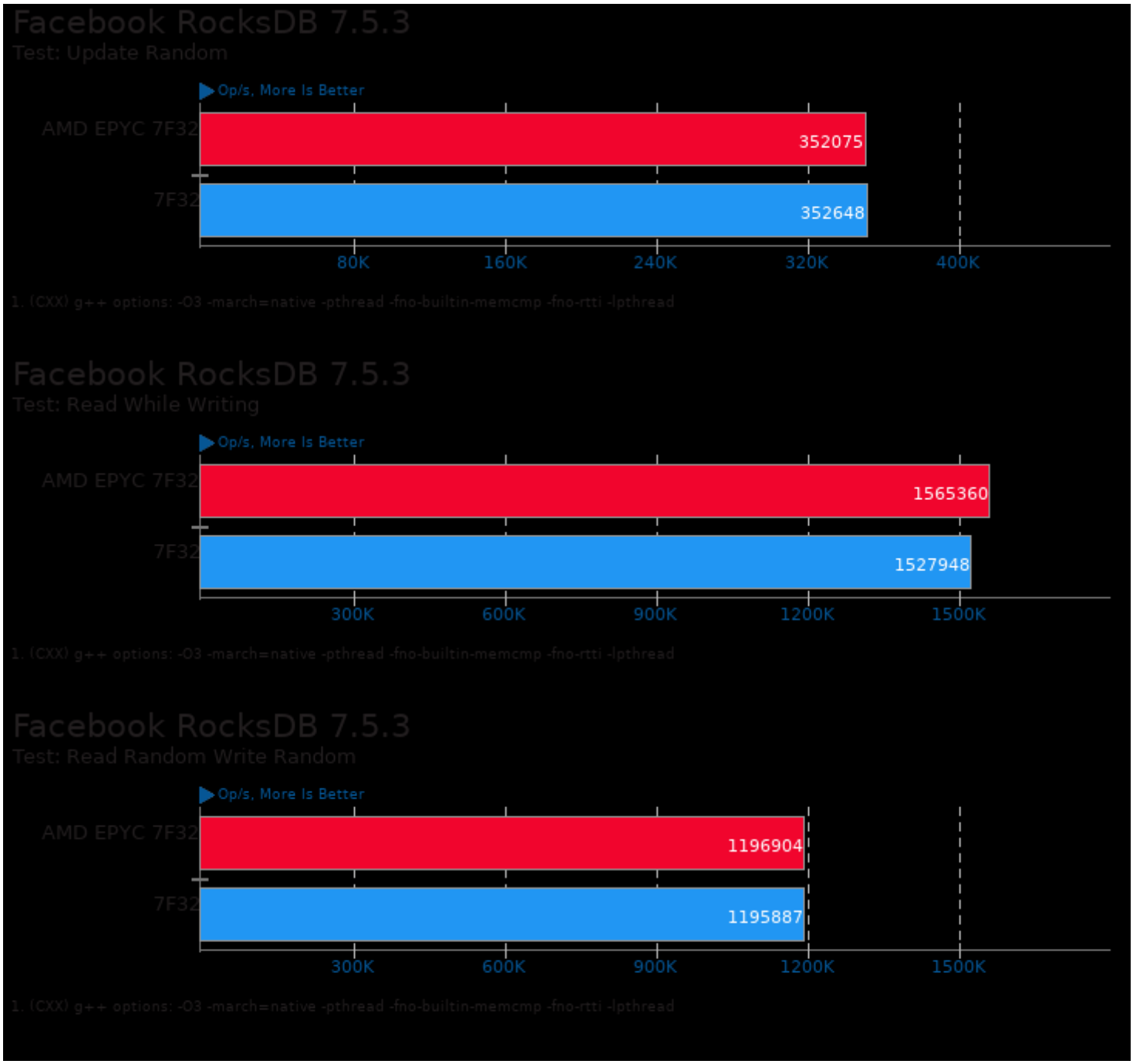

Cpuminer-Opt 3.20.3
Algorithm: x25x
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
401.99
387.05
410.38
90
180
270
360
450
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: scrypt
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
145.88
146.09
145.69
30
60
90
120
150
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: Deepcoin
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
7494.50
7487.49
7488.34
1600
3200
4800
6400
8000
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

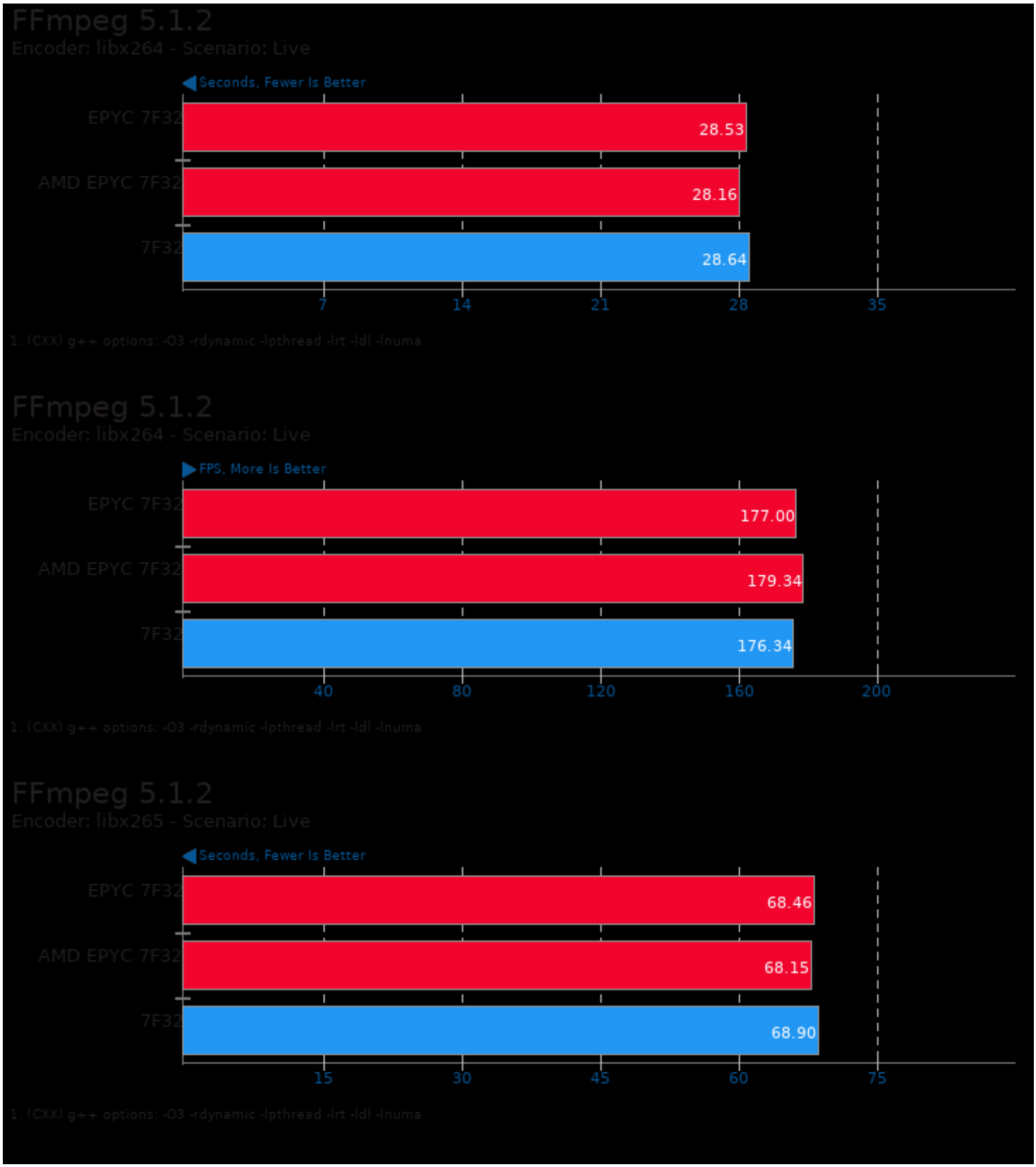

Cpuminer-Opt 3.20.3
Algorithm: Ringcoin
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
1566.83
1612.04
1575.59
300
600
900
1200
1500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: Blake-2 S
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
349500
348760
324270
70K
140K
210K
280K
350K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: Garlicoin
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
2139.28
2123.04
2147.80
500
1000
1500
2000
2500
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp


Cpuminer-Opt 3.20.3
Algorithm: Skeincoin
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
68290
68130
68400
15K
30K
45K
60K
75K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: Myriad-Groestl
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
12640
12640
12630
3K
6K
9K
12K
15K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: LBC, LBRY Credits
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
20140
20260
20250
4K
8K
12K
16K
20K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp

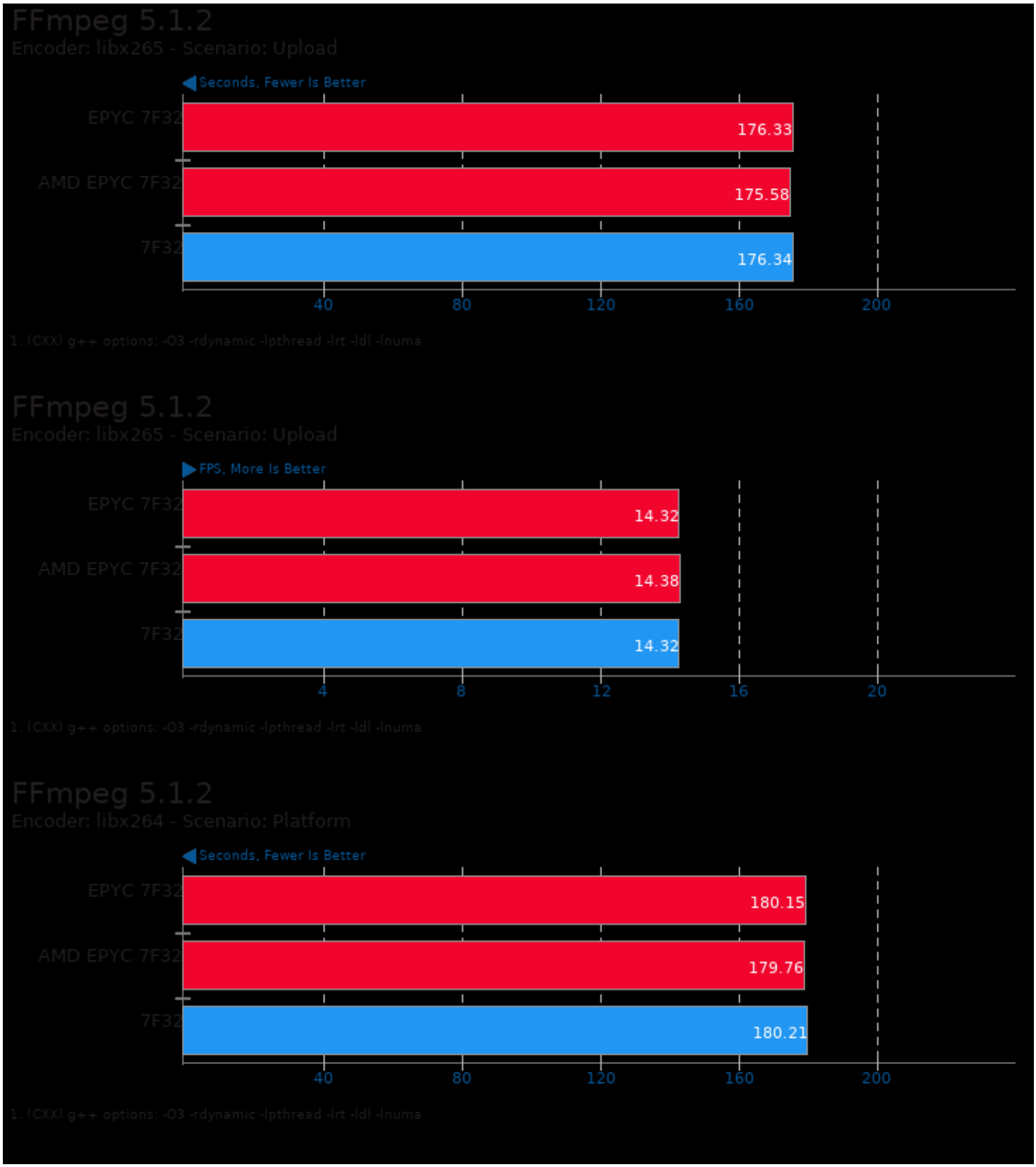

Cpuminer-Opt 3.20.3
Algorithm: Quad SHA-256, Pyrite
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
66230
66230
66260
14K
28K
42K
56K
70K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
Cpuminer-Opt 3.20.3
Algorithm: Triple SHA-256, Onecoin
kH/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
132280
132340
132610
30K
60K
90K
120K
150K
1. (CXX) g++ options: -O2 -lcurl -lz -lpthread -lssl -lcrypto -lgmp
EnCodec 0.1.1
Target Bandwidth: 3 kbps
Seconds, Fewer Is Better
AMD EPYC 7F32
7F32
36.20
35.80
8
16
24
32
40


EnCodec 0.1.1
Target Bandwidth: 6 kbps
Seconds, Fewer Is Better
AMD EPYC 7F32
34.99
7F32
34.58
8
16
24
32
40
EnCodec 0.1.1
Target Bandwidth: 24 kbps
Seconds, Fewer Is Better
AMD EPYC 7F32
39.87
7F32
39.82
9
18
27
36
45
EnCodec 0.1.1
Target Bandwidth: 1.5 kbps
Seconds, Fewer Is Better
AMD EPYC 7F32
33.97
7F32
33.42
8
16
24
32
40
Facebook RocksDB 7.5.3
Test: Random Read
Op/s, More Is Better
AMD EPYC 7F32
39007583
7F32
38208038
8M
16M
24M
32M
40M
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


Facebook RocksDB 7.5.3
Test: Update Random
Op/s, More Is Better
AMD EPYC 7F32
352075
7F32
352648
80K
160K
240K
320K
400K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 7.5.3
Test: Read While Writing
Op/s, More Is Better
AMD EPYC 7F32
1565360
7F32
1527948
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 7.5.3
Test: Read Random Write Random
Op/s, More Is Better
AMD EPYC 7F32
1196904
7F32
1195887
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


FFmpeg 5.1.2
Encoder: libx264 - Scenario: Live
Seconds, Fewer Is Better
EPYC 7F32
28.53
AMD EPYC 7F32
28.16
7F32
28.64
7
14
21
28
35
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx264 - Scenario: Live
FPS, More Is Better
EPYC 7F32
177.00
AMD EPYC 7F32
179.34
7F32
176.34
40
80
120
160
200
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx265 - Scenario: Live
Seconds, Fewer Is Better
EPYC 7F32
68.46
AMD EPYC 7F32
68.15
7F32
68.90
15
30
45
60
75
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma


FFmpeg 5.1.2
Encoder: libx265 - Scenario: Live
FPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
73.77
74.10
73.29
16
32
48
64
80
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx264 - Scenario: Upload
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
227.67
228.16
228.97
50
100
150
200
250
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx264 - Scenario: Upload
FPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
11.09
11.07
11.03
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

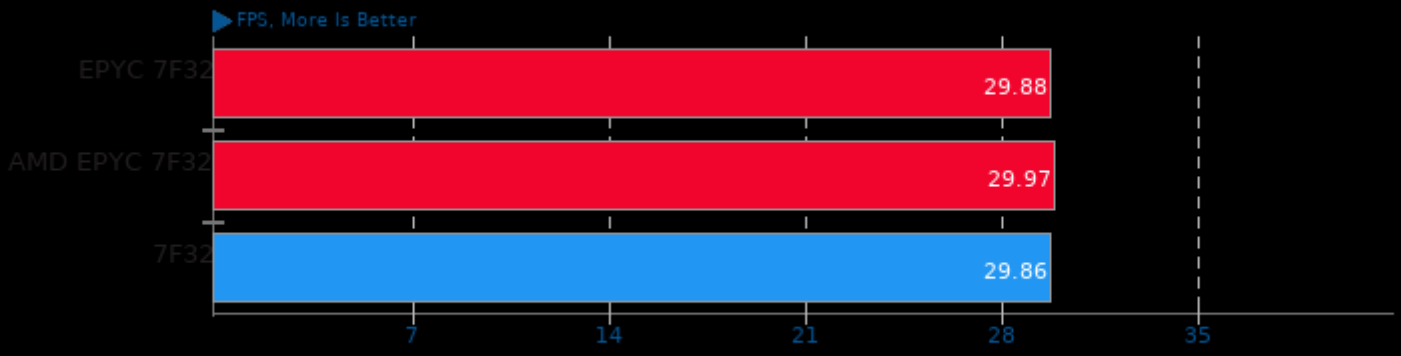

FFmpeg 5.1.2
Encoder: libx265 - Scenario: Upload
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
176.33
175.58
176.34
40
80
120
160
200
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx265 - Scenario: Upload
FPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
14.32
14.38
14.32
4
8
12
16
20
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx264 - Scenario: Platform
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
180.15
179.76
180.21
40
80
120
160
200
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma


FFmpeg 5.1.2
Encoder: libx264 - Scenario: Platform
FPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
42.05
42.14
42.03
10
20
30
40
50
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx265 - Scenario: Platform
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
253.47
252.19
253.81
60
120
180
240
300
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx265 - Scenario: Platform
FPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
29.88
30.04
29.85
7
14
21
28
35
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma


FFmpeg 5.1.2
Encoder: libx264 - Scenario: Video On Demand
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
180.64
180.54
180.62
40
80
120
160
200
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx264 - Scenario: Video On Demand
FPS, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
41.93
41.96
41.94
10
20
30
40
50
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma
FFmpeg 5.1.2
Encoder: libx265 - Scenario: Video On Demand
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
253.56
252.74
253.64
60
120
180
240
300
1. (CXX) g++ options: -O3 -rdynamic -lpthread -lrt -ldl -lnuma

FFmpeg 5.1.2

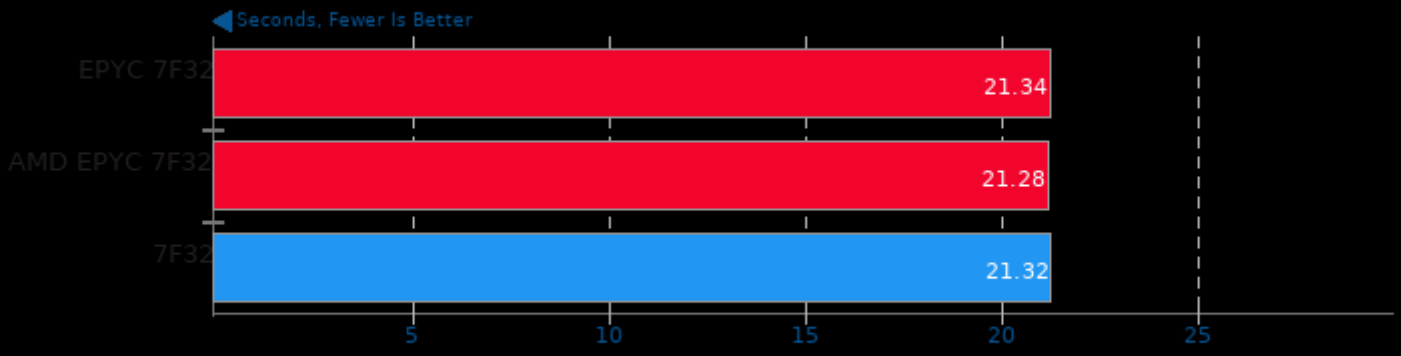
Encoder: libx265 - Scenario: Video On Demand



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

FLAC Audio Encoding 1.4

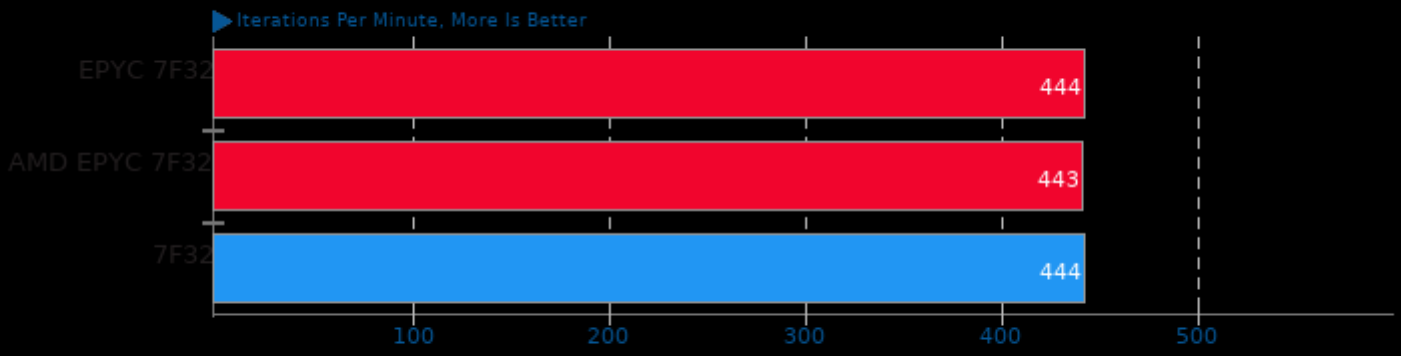
WAV To FLAC



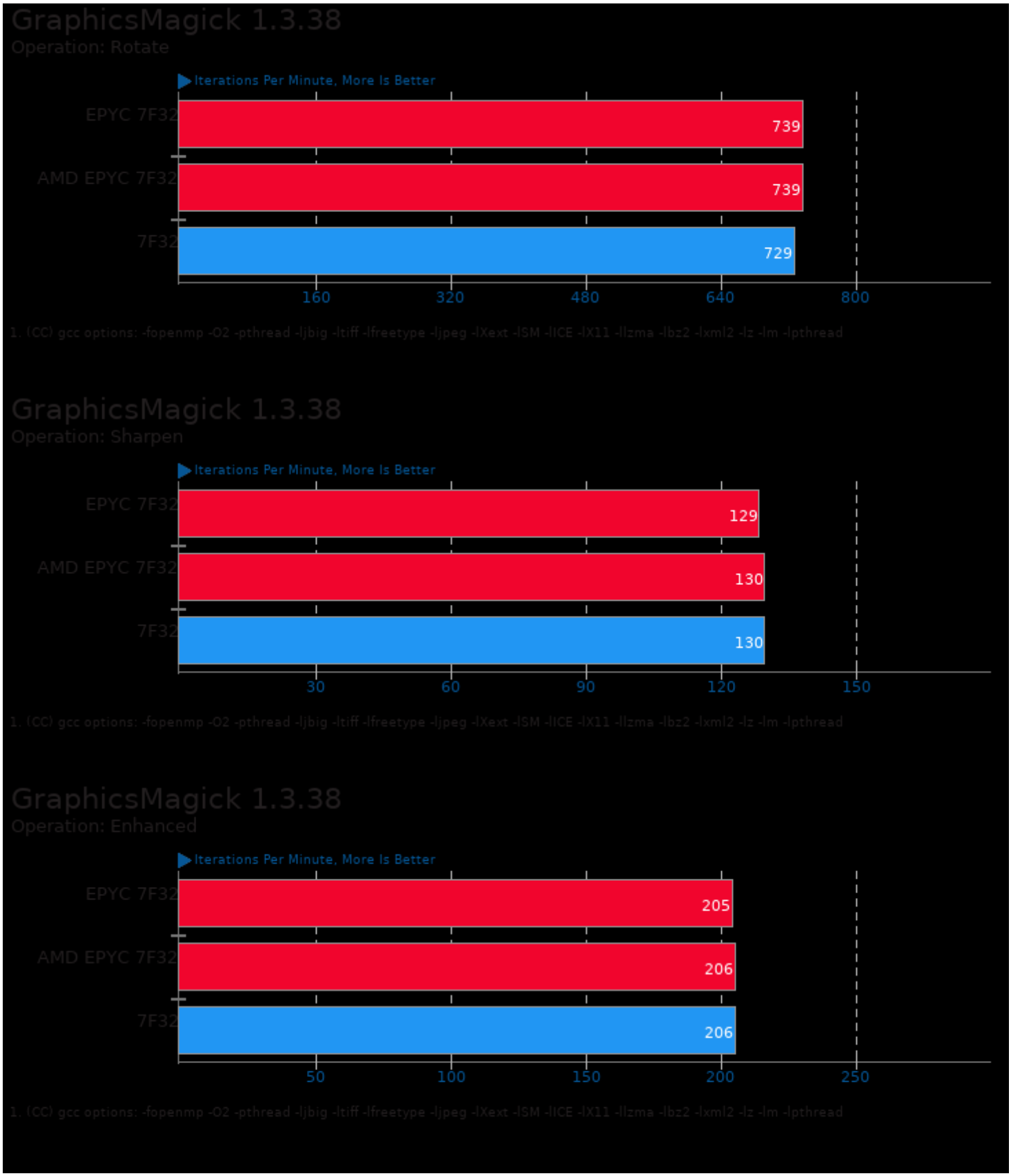
1. (CXX) g++ options: -O3 -fvisibility=hidden -logg -lm

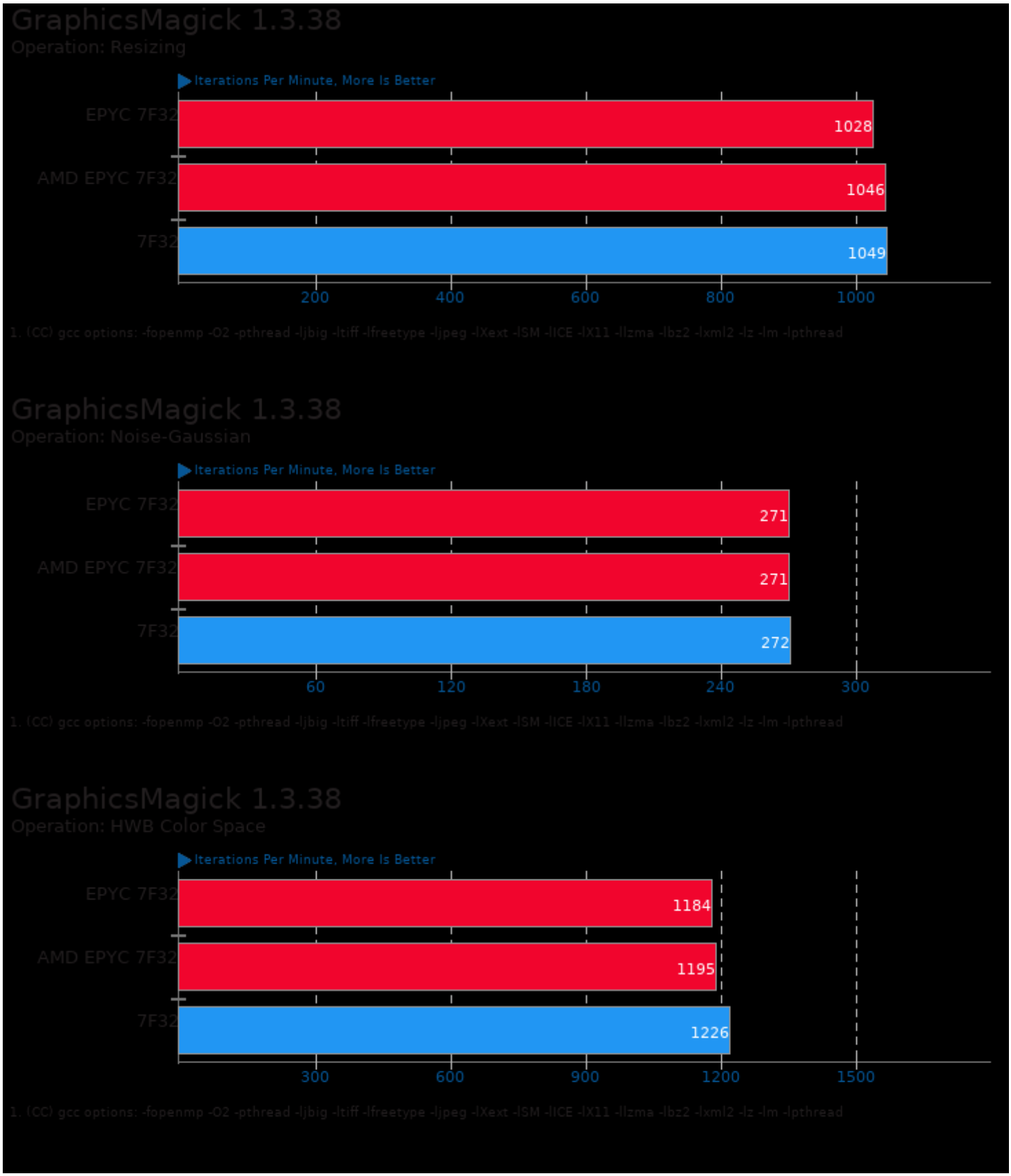
GraphicsMagick 1.3.38

Operation: Swirl

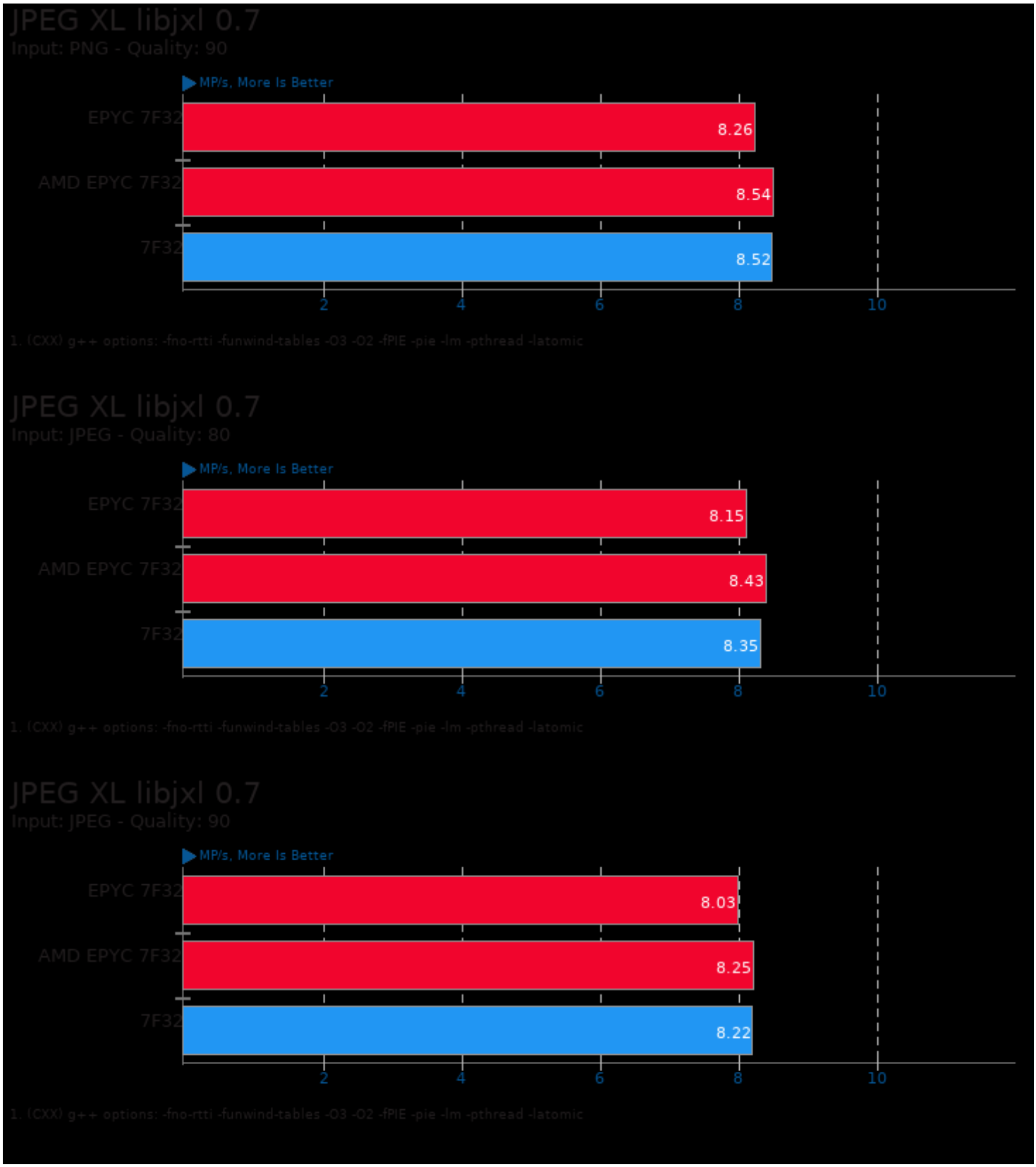


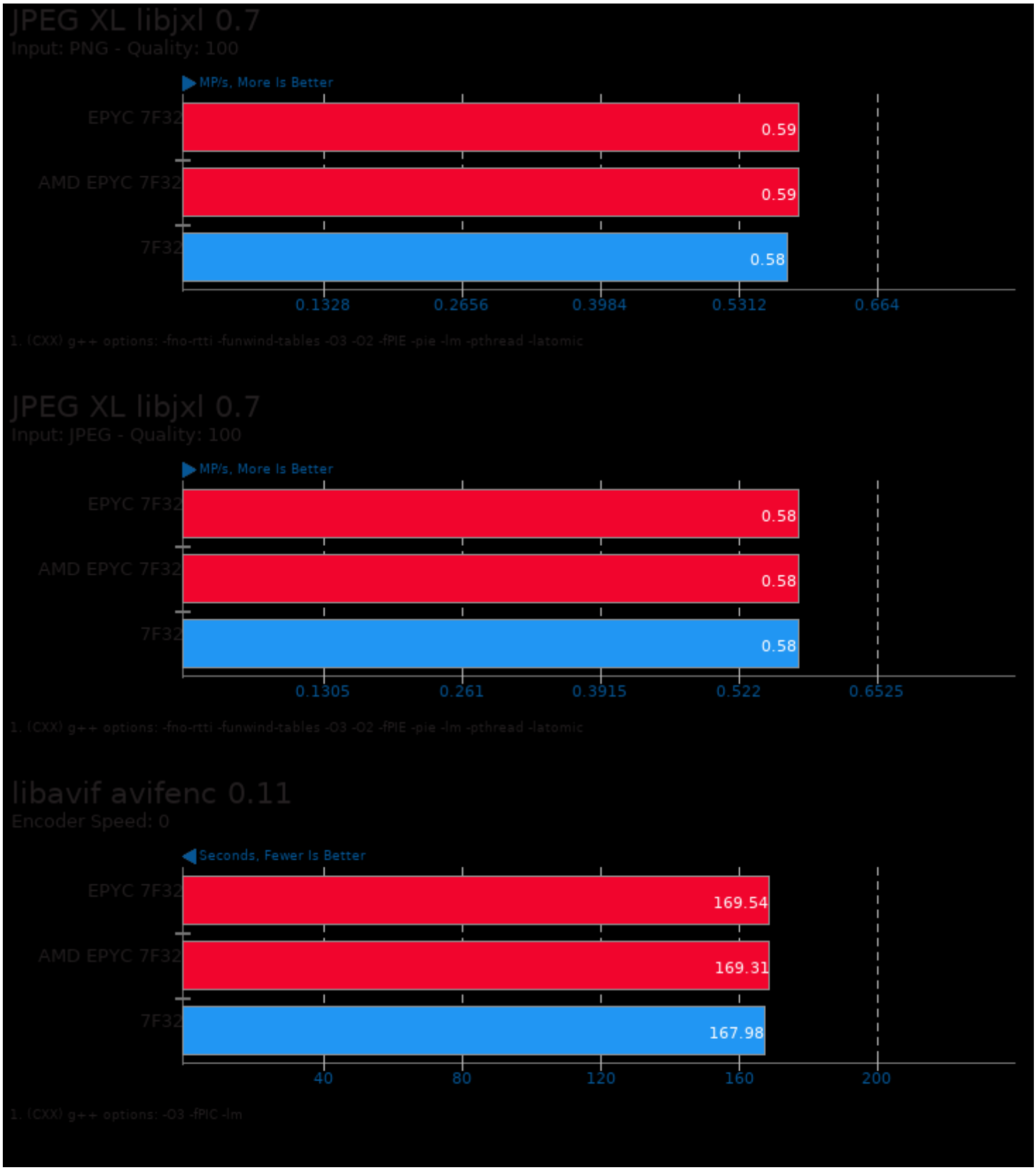
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread


GraphicsMagick 1.3.38
Operation: Rotate
Iterations Per Minute, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
739
739
729
160
320
480
640
800
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: Sharpen
Iterations Per Minute, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
129
130
130
30
60
90
120
150
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: Enhanced
Iterations Per Minute, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
205
206
206
50
100
150
200
250
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

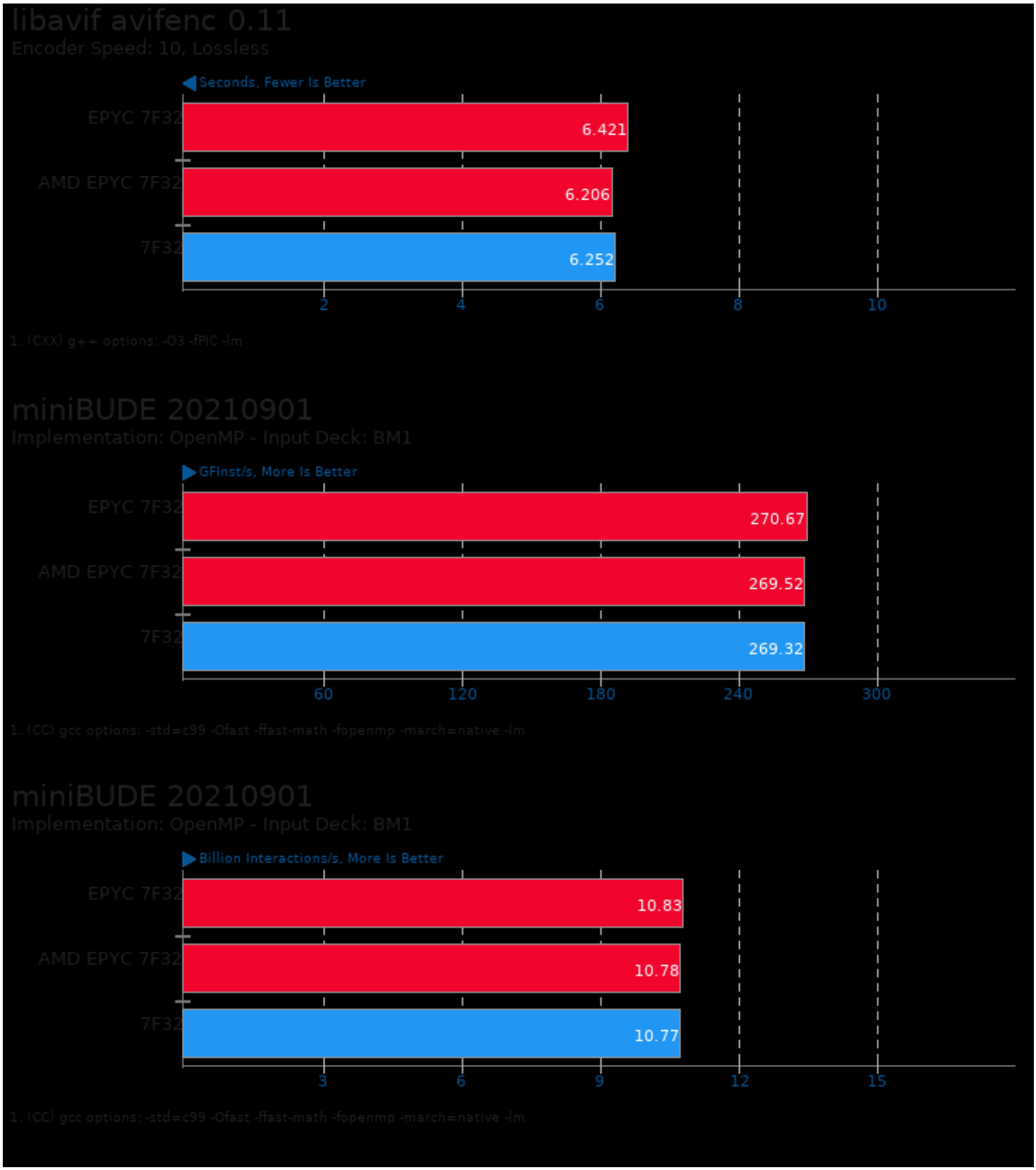

GraphicsMagick 1.3.38
Operation: Resizing
Iterations Per Minute, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
1028
1046
1049
200
400
600
800
1000
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: Noise-Gaussian
Iterations Per Minute, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
271
271
272
60
120
180
240
300
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: HWB Color Space
Iterations Per Minute, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
1184
1195
1226
300
600
900
1200
1500
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread


JPEG XL Decoding libjxl 0.7
CPU Threads: 1
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
43.36
43.72
43.24
10
20
30
40
50
JPEG XL Decoding libjxl 0.7
CPU Threads: All
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
198.76
246.32
222.05
50
100
150
200
250
JPEG XL libjxl 0.7
Input: PNG - Quality: 80
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
8.44
8.71
8.63
2
4
6
8
10
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -pthread -latomic

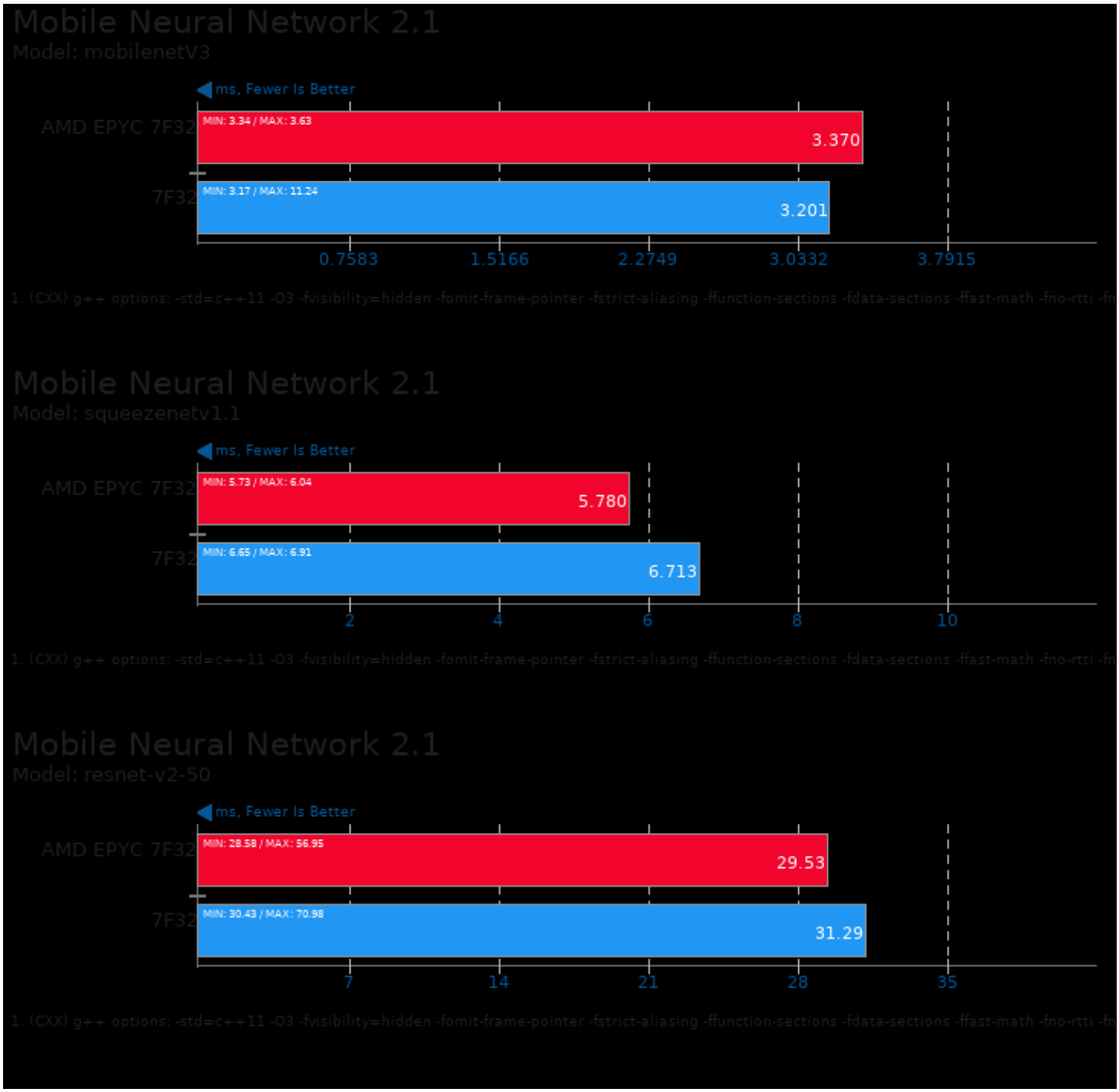

JPEG XL libjxl 0.7
Input: PNG - Quality: 90
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
8.26
8.54
8.52
2
4
6
8
10
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -pthread -latomic
JPEG XL libjxl 0.7
Input: JPEG - Quality: 80
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
8.15
8.43
8.35
2
4
6
8
10
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -pthread -latomic
JPEG XL libjxl 0.7
Input: JPEG - Quality: 90
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
8.03
8.25
8.22
2
4
6
8
10
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -pthread -latomic

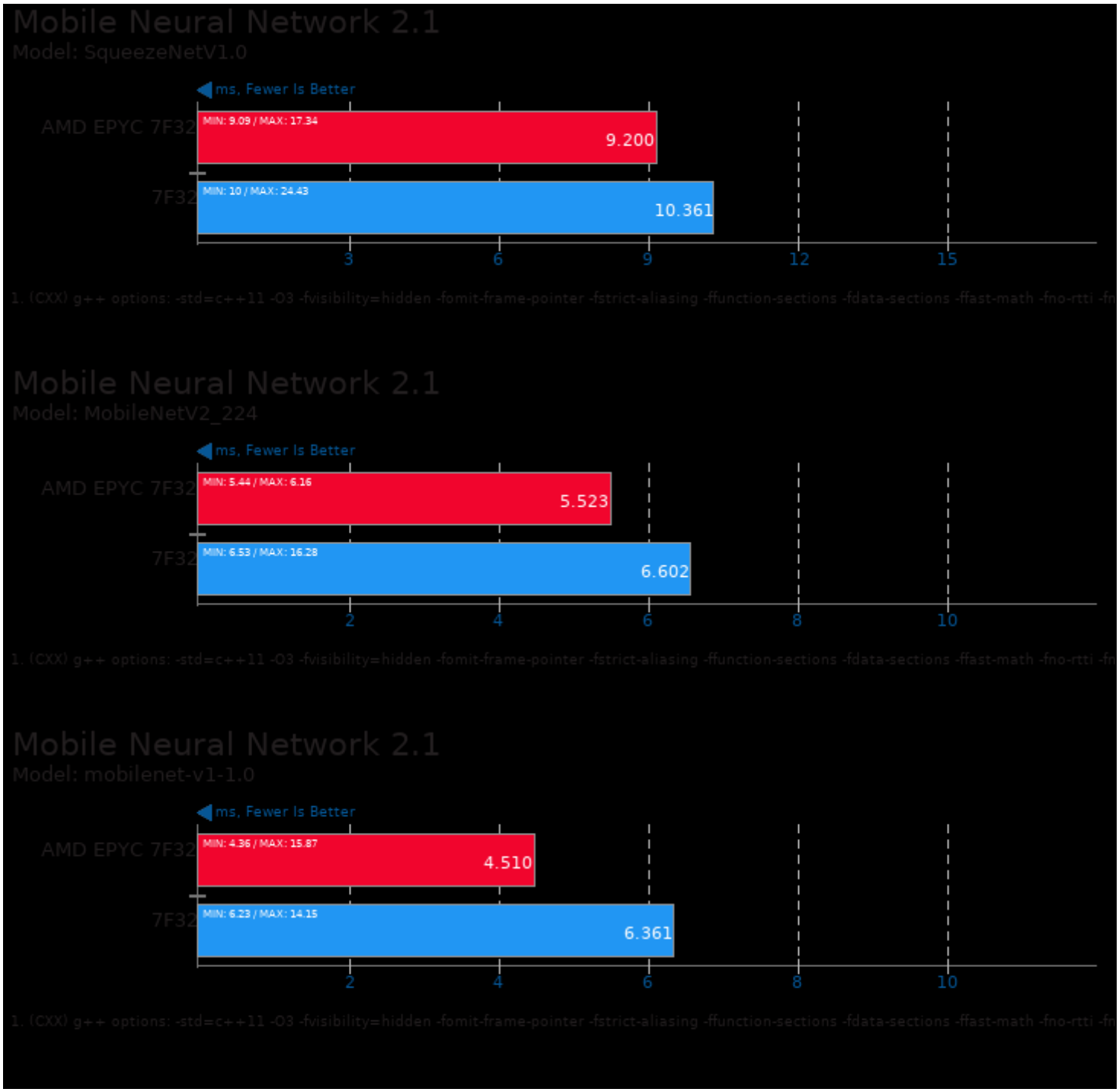

JPEG XL libjxl 0.7
Input: PNG - Quality: 100
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
0.59
0.59
0.58
0.1328
0.2656
0.3984
0.5312
0.664
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -pthread -latomic
JPEG XL libjxl 0.7
Input: JPEG - Quality: 100
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
0.58
0.58
0.58
0.1305
0.261
0.3915
0.522
0.6525
1. (CXX) g++ options: -fno-rtti -funwind-tables -O3 -O2 -fPIE -pie -lm -pthread -latomic
libavif avifenc 0.11
Encoder Speed: 0
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
169.54
169.31
167.98
40
80
120
160
200
1. (CXX) g++ options: -O3 -fPIC -lm

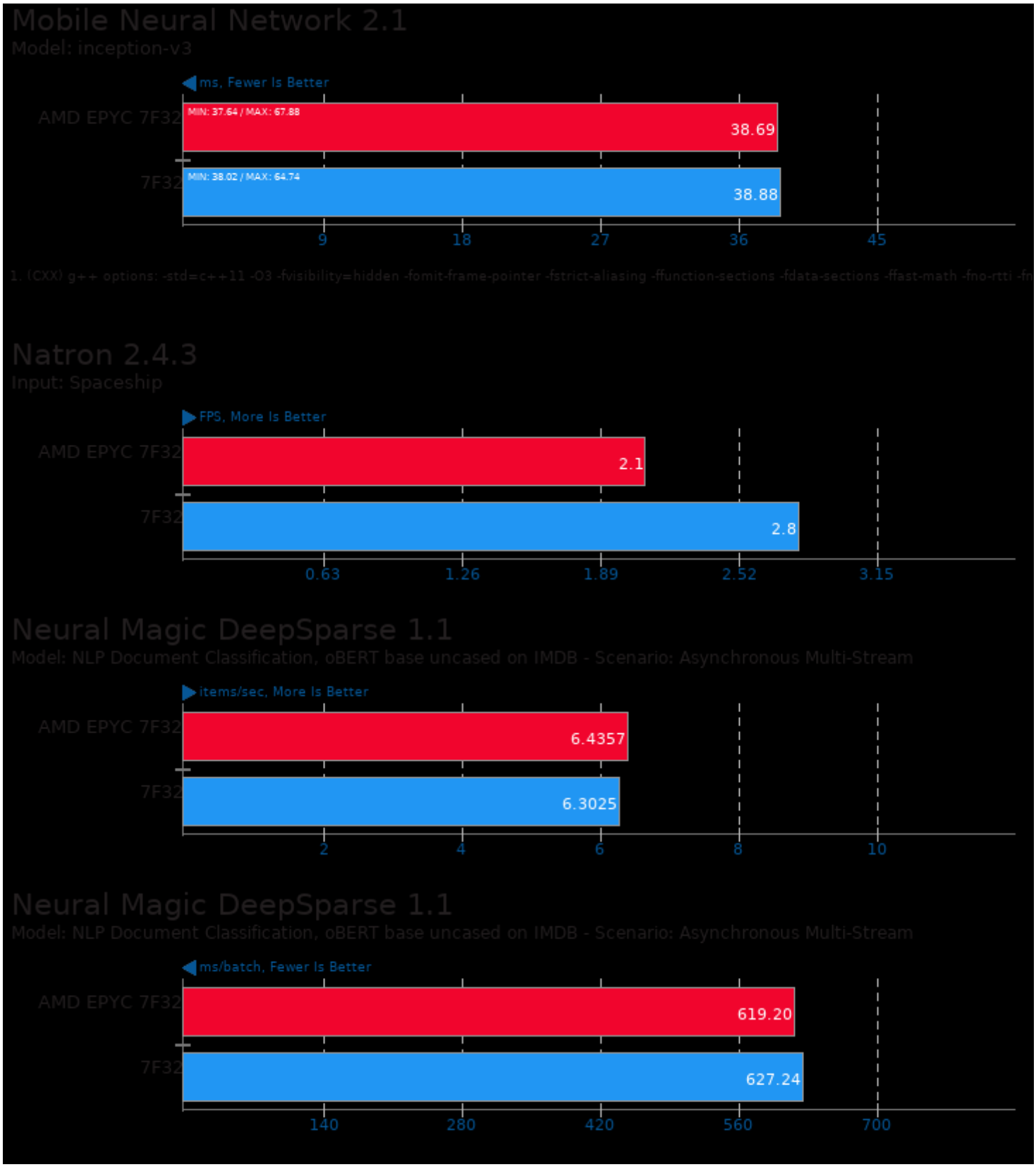

libavif avifenc 0.11
Encoder Speed: 2
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
80.97
80.89
80.50
20
40
60
80
100
1. (CXX) g++ options: -O3 -fPIC -lm
libavif avifenc 0.11
Encoder Speed: 6
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
7.893
7.856
7.802
2
4
6
8
10
1. (CXX) g++ options: -O3 -fPIC -lm
libavif avifenc 0.11
Encoder Speed: 6, Lossless
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
12.43
12.29
12.24
3
6
9
12
15
1. (CXX) g++ options: -O3 -fPIC -lm

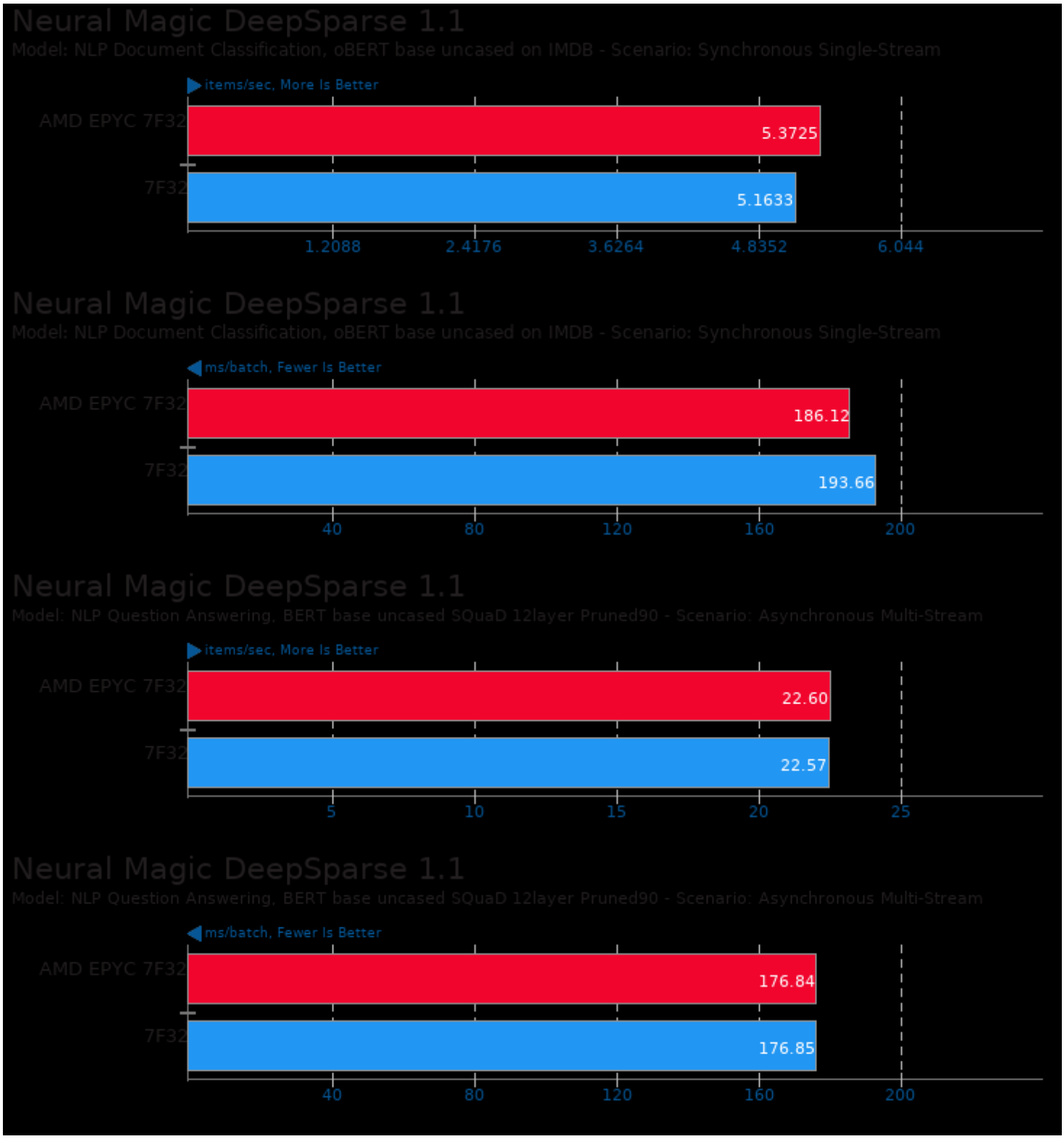

libavif avifenc 0.11
Encoder Speed: 10, Lossless
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
6.421
6.206
6.252
2
4
6
8
10
1. (CXX) g++ options: -O3 -fPIC -lm
miniBUDE 20210901
Implementation: OpenMP - Input Deck: BM1
GFInst/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
270.67
269.52
269.32
60
120
180
240
300
1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm
miniBUDE 20210901
Implementation: OpenMP - Input Deck: BM1
Billion Interactions/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
10.83
10.78
10.77
3
6
9
12
15
1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm

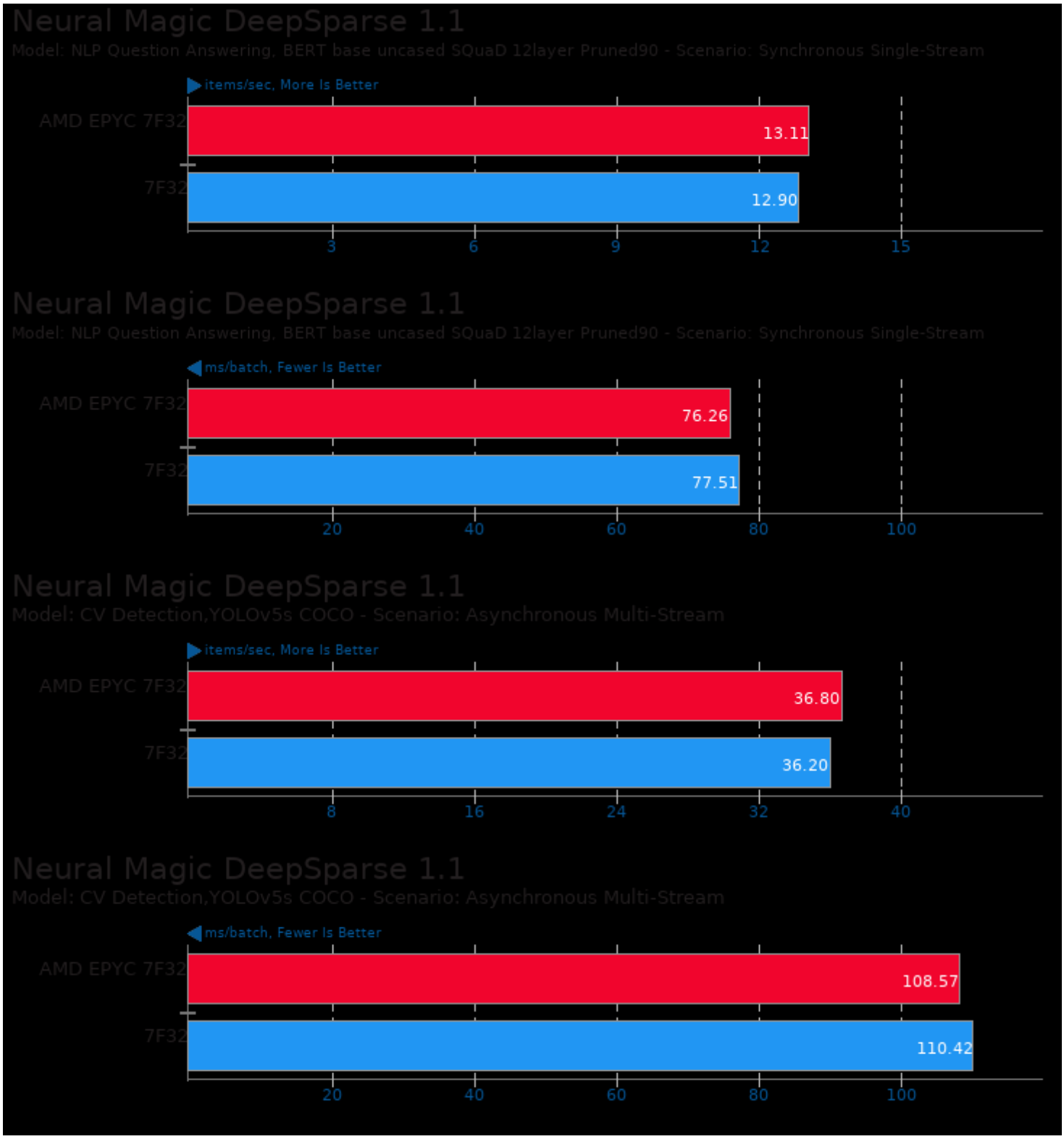

miniBUDE 20210901
Implementation: OpenMP - Input Deck: BM2
GFInst/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
271.09
270.07
270.91
60
120
180
240
300
1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm
miniBUDE 20210901
Implementation: OpenMP - Input Deck: BM2
Billion Interactions/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
10.84
10.80
10.84
3
6
9
12
15
1. (CC) gcc options: -std=c99 -Ofast -ffast-math -fopenmp -march=native -lm
Mobile Neural Network 2.1
Model: nasnet
ms, Fewer Is Better
AMD EPYC 7F32
7F32
MIN: 21.78 / MAX: 47.46
MIN: 23.33 / MAX: 44.97
23.65
23.65
6
12
18
24
30
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti


Mobile Neural Network 2.1
Model: mobilenetV3
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 3.34 / MAX: 3.63
3.370
7F32
MIN: 3.17 / MAX: 11.24
3.201
0.7583
1.5166
2.2749
3.0332
3.7915
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: squeezenetv1.1
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 5.73 / MAX: 6.04
5.780
7F32
MIN: 6.65 / MAX: 6.91
6.713
2
4
6
8
10
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: resnet-v2-50
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 28.58 / MAX: 56.95
29.53
7F32
MIN: 30.43 / MAX: 70.98
31.29
7
14
21
28
35
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn

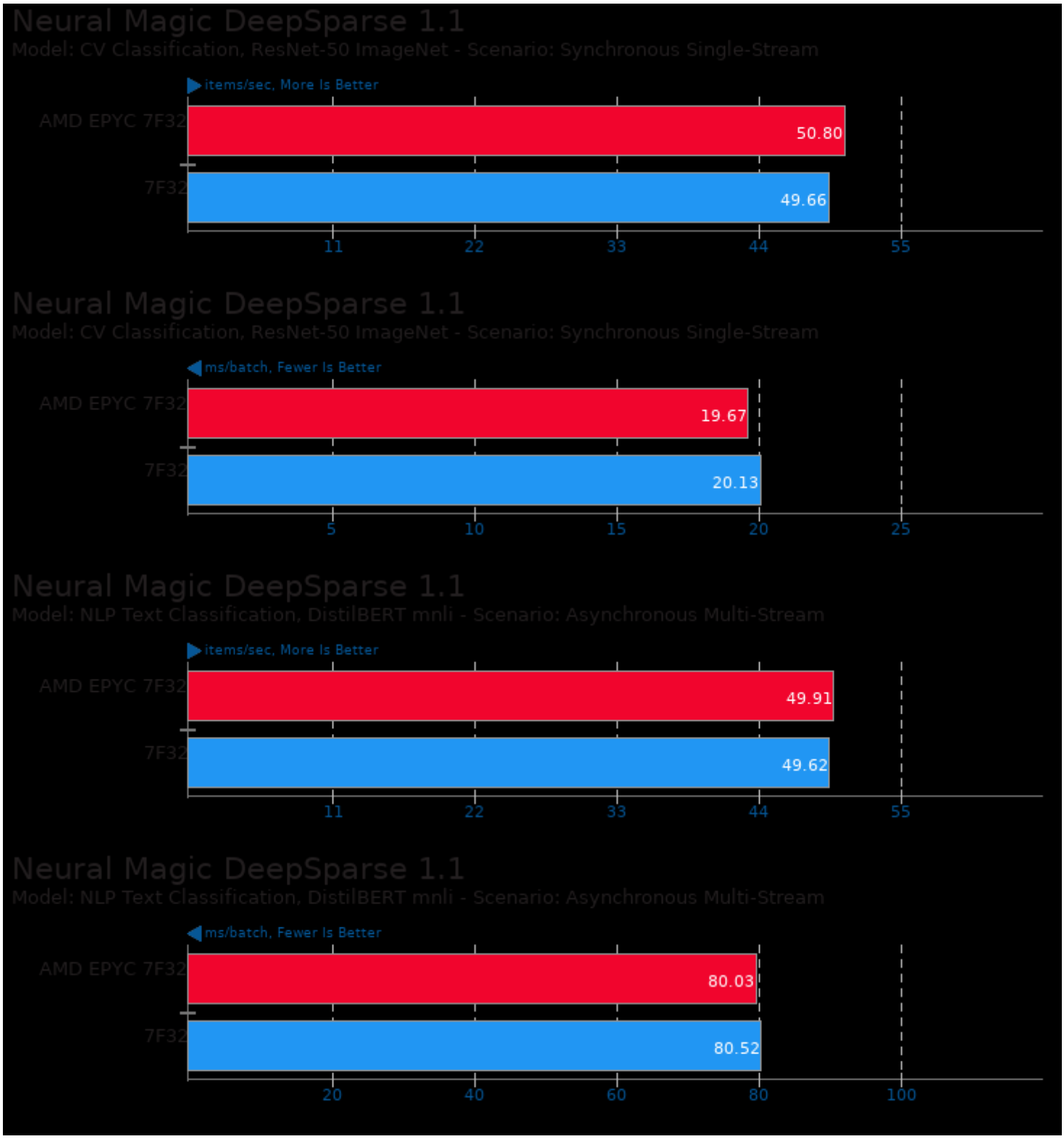

Mobile Neural Network 2.1
Model: SqueezeNetV1.0
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 9.09 / MAX: 17.34
9.200
7F32
MIN: 10 / MAX: 24.43
10.361
3
6
9
12
15
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: MobileNetV2_224
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 5.44 / MAX: 6.16
5.523
7F32
MIN: 6.53 / MAX: 16.28
6.602
2
4
6
8
10
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn
Mobile Neural Network 2.1
Model: mobilenet-v1-1.0
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 4.36 / MAX: 15.87
4.510
7F32
MIN: 6.23 / MAX: 14.15
6.361
2
4
6
8
10
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fn

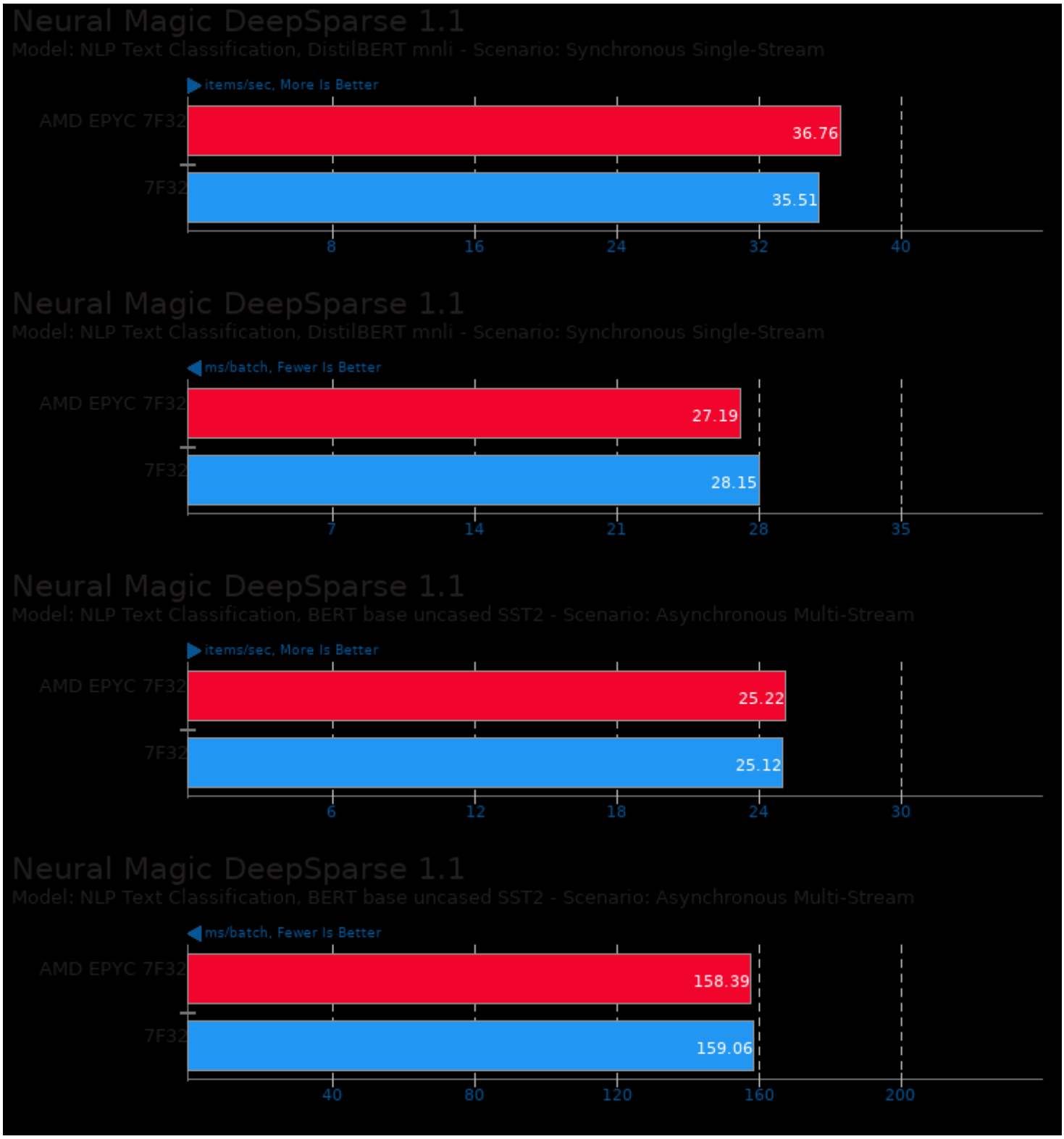

Mobile Neural Network 2.1
Model: inception-v3
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 37.64 / MAX: 67.88
38.69
7F32
MIN: 38.02 / MAX: 64.74
38.88
9
18
27
36
45
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti
Natron 2.4.3
Input: Spaceship
FPS, More Is Better
AMD EPYC 7F32
2.1
7F32
2.8
0.63
1.26
1.89
2.52
3.15
Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
6.4357
7F32
6.3025
2
4
6
8
10
Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
619.20
7F32
627.24
140
280
420
560
700

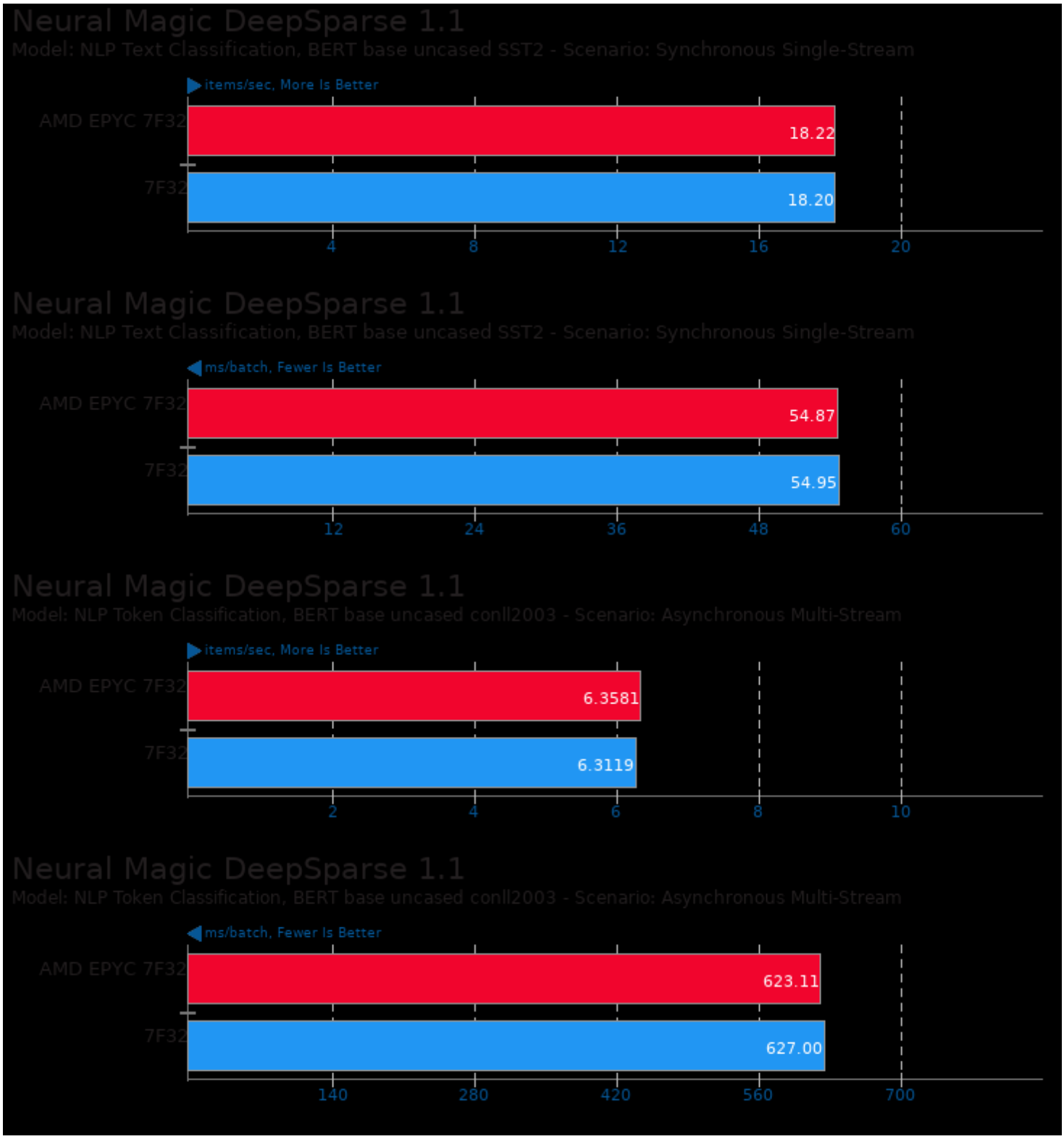

Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
5.3725
7F32
5.1633
1.2088
2.4176
3.6264
4.8352
6.044
Neural Magic DeepSparse 1.1
Model: NLP Document Classification, oBERT base uncased on IMDB - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
186.12
7F32
193.66
40
80
120
160
200
Neural Magic DeepSparse 1.1
Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
22.60
7F32
22.57
5
10
15
20
25
Neural Magic DeepSparse 1.1
Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
176.84
7F32
176.85
40
80
120
160
200


Neural Magic DeepSparse 1.1
Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
13.11
7F32
12.90
3
6
9
12
15
Neural Magic DeepSparse 1.1
Model: NLP Question Answering, BERT base uncased SQuaD 12layer Pruned90 - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
76.26
7F32
77.51
20
40
60
80
100
Neural Magic DeepSparse 1.1
Model: CV Detection,YOLOv5s COCO - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
36.80
7F32
36.20
8
16
24
32
40
Neural Magic DeepSparse 1.1
Model: CV Detection,YOLOv5s COCO - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
108.57
7F32
110.42
20
40
60
80
100

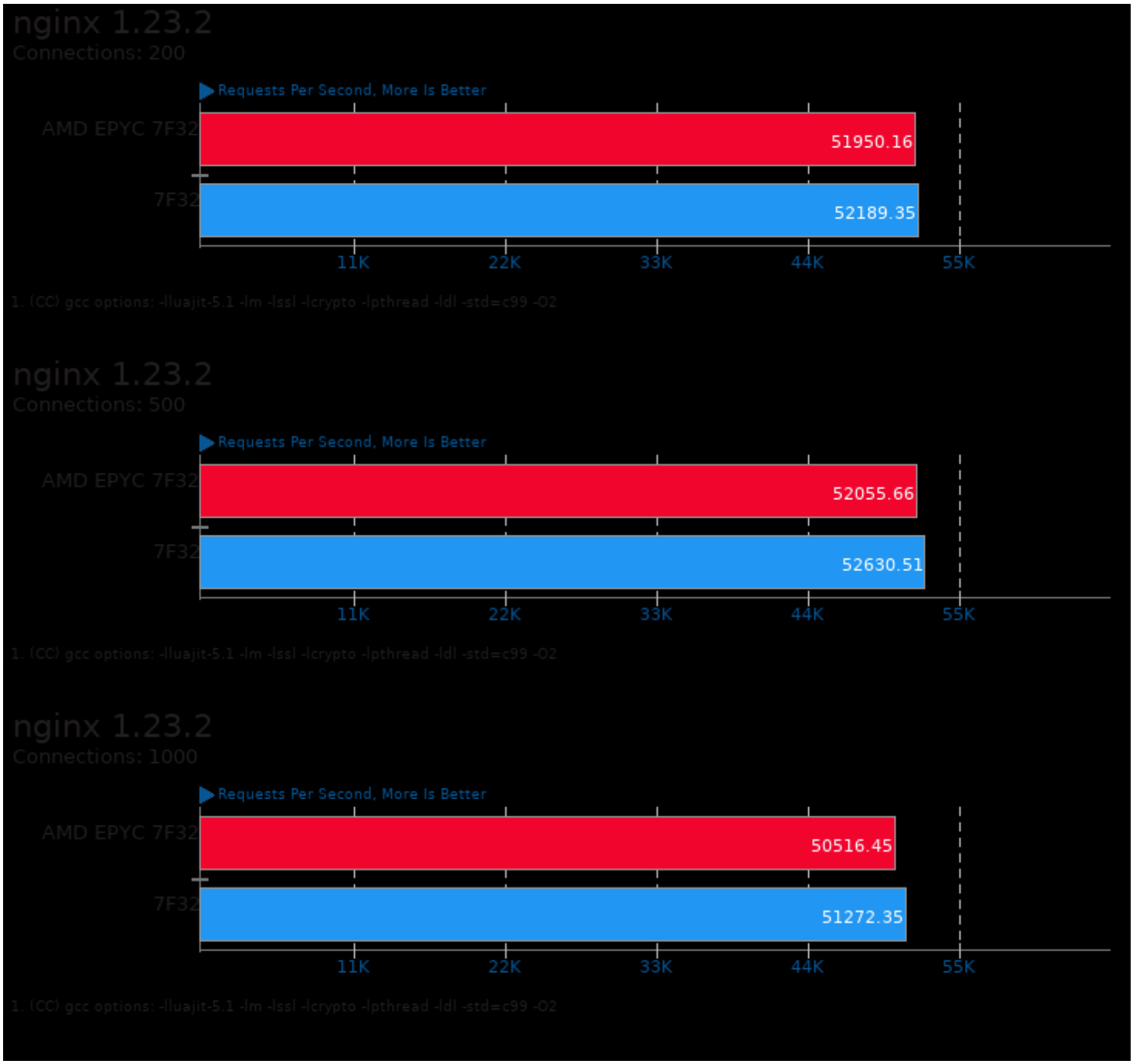

Neural Magic DeepSparse 1.1
Model: CV Detection,YOLOv5s COCO - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
26.98
7F32
26.71
6
12
18
24
30
Neural Magic DeepSparse 1.1
Model: CV Detection,YOLOv5s COCO - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
37.05
7F32
37.43
9
18
27
36
45
Neural Magic DeepSparse 1.1
Model: CV Classification, ResNet-50 ImageNet - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
70.02
7F32
69.48
16
32
48
64
80
Neural Magic DeepSparse 1.1
Model: CV Classification, ResNet-50 ImageNet - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
57.07
7F32
57.51
13
26
39
52
65

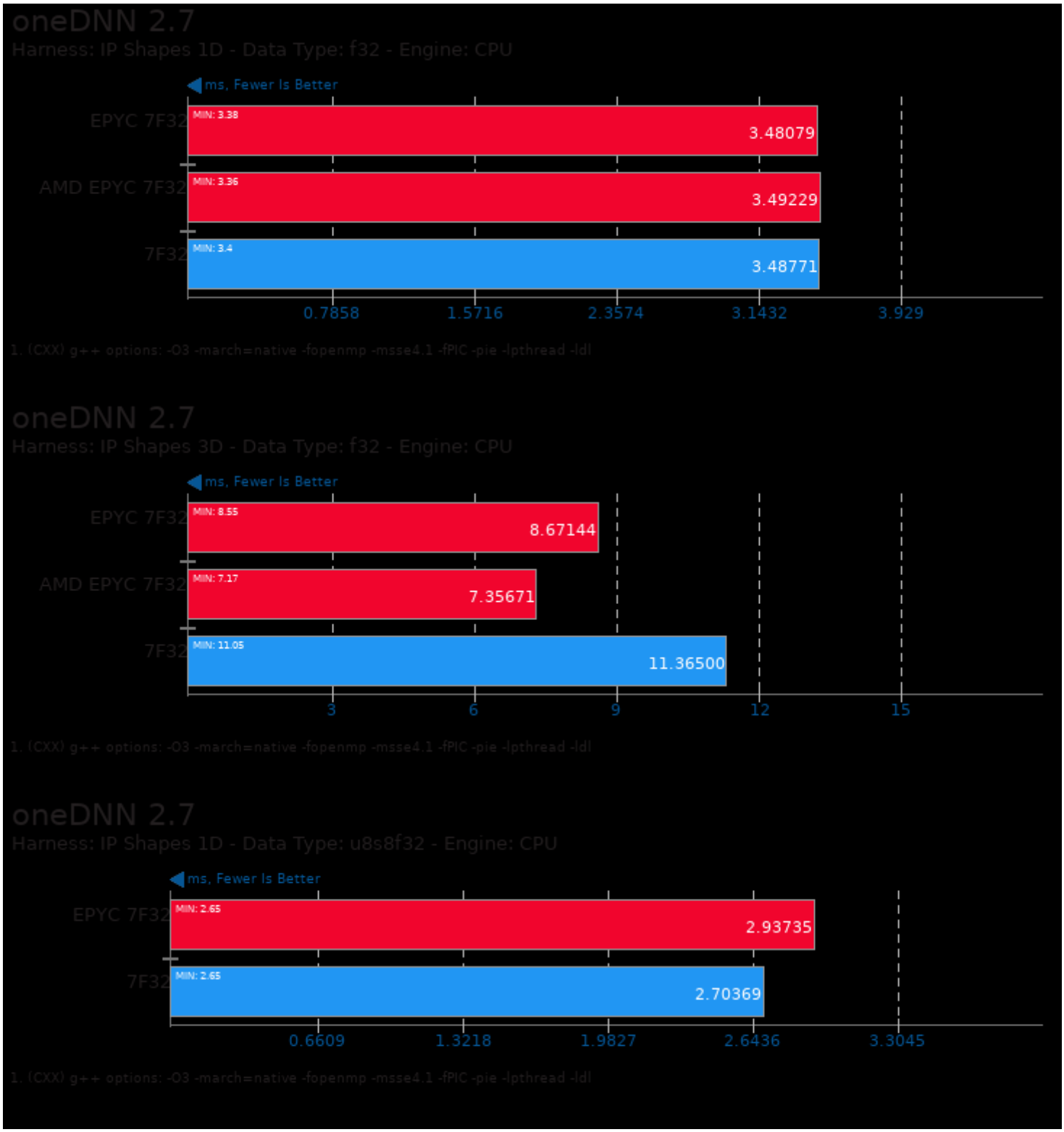

Neural Magic DeepSparse 1.1
Model: CV Classification, ResNet-50 ImageNet - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
50.80
7F32
49.66
11
22
33
44
55
Neural Magic DeepSparse 1.1
Model: CV Classification, ResNet-50 ImageNet - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
19.67
7F32
20.13
5
10
15
20
25
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, DistilBERT mnli - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
49.91
7F32
49.62
11
22
33
44
55
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, DistilBERT mnli - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
80.03
7F32
80.52
20
40
60
80
100

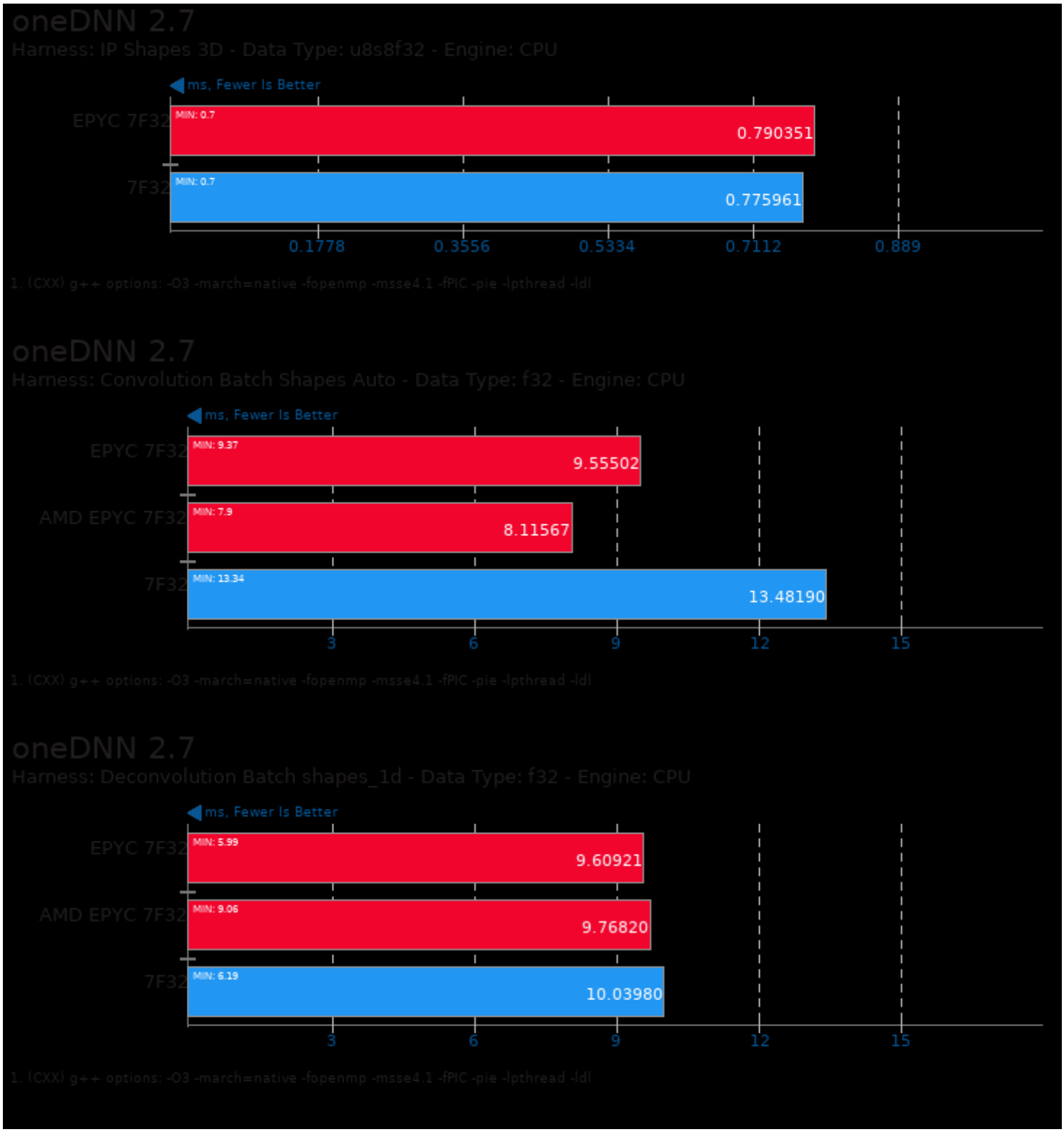

Neural Magic DeepSparse 1.1
Model: NLP Text Classification, DistilBERT mnli - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
36.76
7F32
35.51
8
16
24
32
40
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, DistilBERT mnli - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
27.19
7F32
28.15
7
14
21
28
35
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
25.22
7F32
25.12
6
12
18
24
30
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
158.39
7F32
159.06
40
80
120
160
200

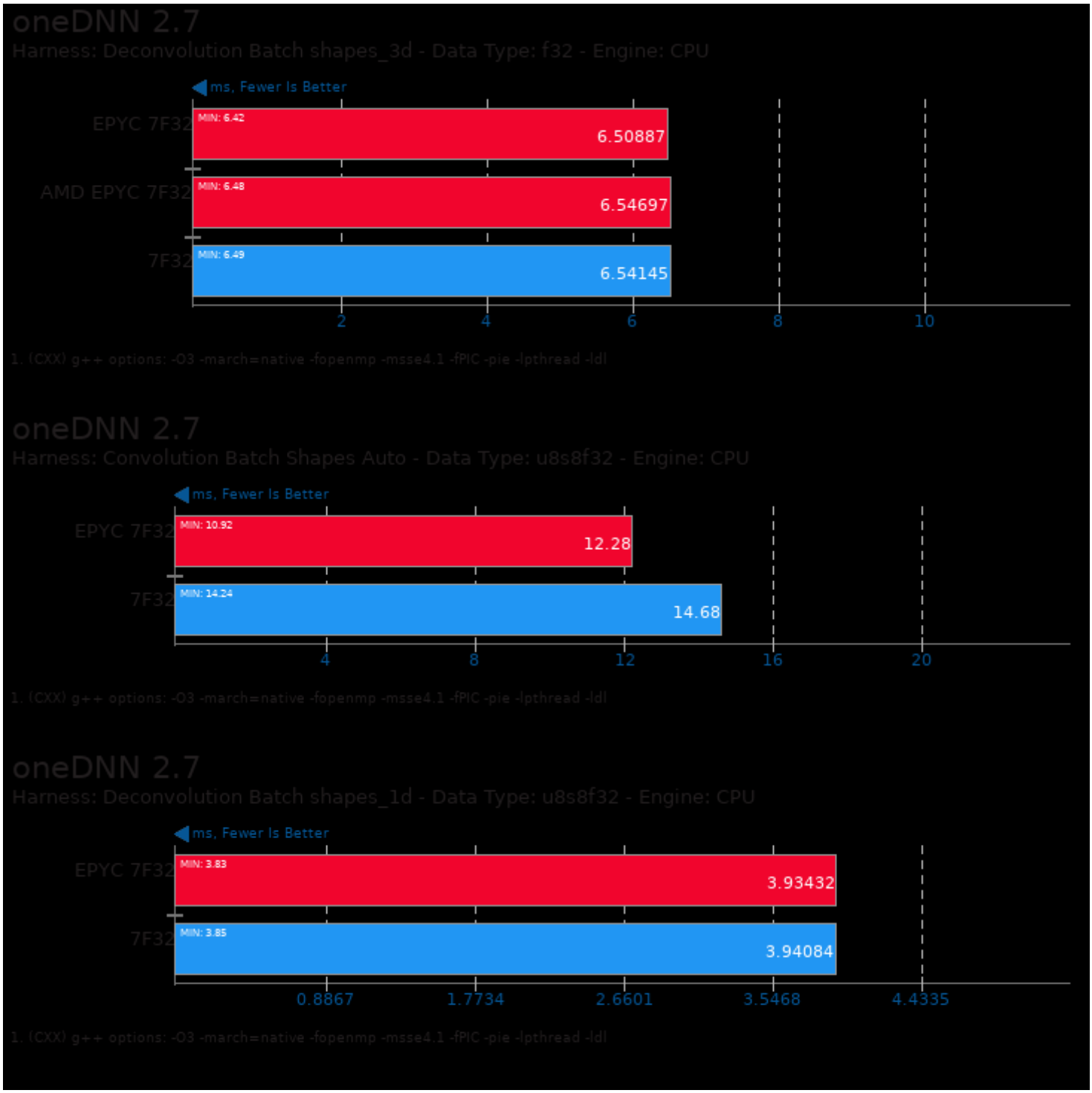

Neural Magic DeepSparse 1.1
Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
18.22
7F32
18.20
4
8
12
16
20
Neural Magic DeepSparse 1.1
Model: NLP Text Classification, BERT base uncased SST2 - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
54.87
7F32
54.95
12
24
36
48
60
Neural Magic DeepSparse 1.1
Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Asynchronous Multi-Stream
items/sec, More Is Better
AMD EPYC 7F32
6.3581
7F32
6.3119
2
4
6
8
10
Neural Magic DeepSparse 1.1
Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Asynchronous Multi-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
623.11
7F32
627.00
140
280
420
560
700

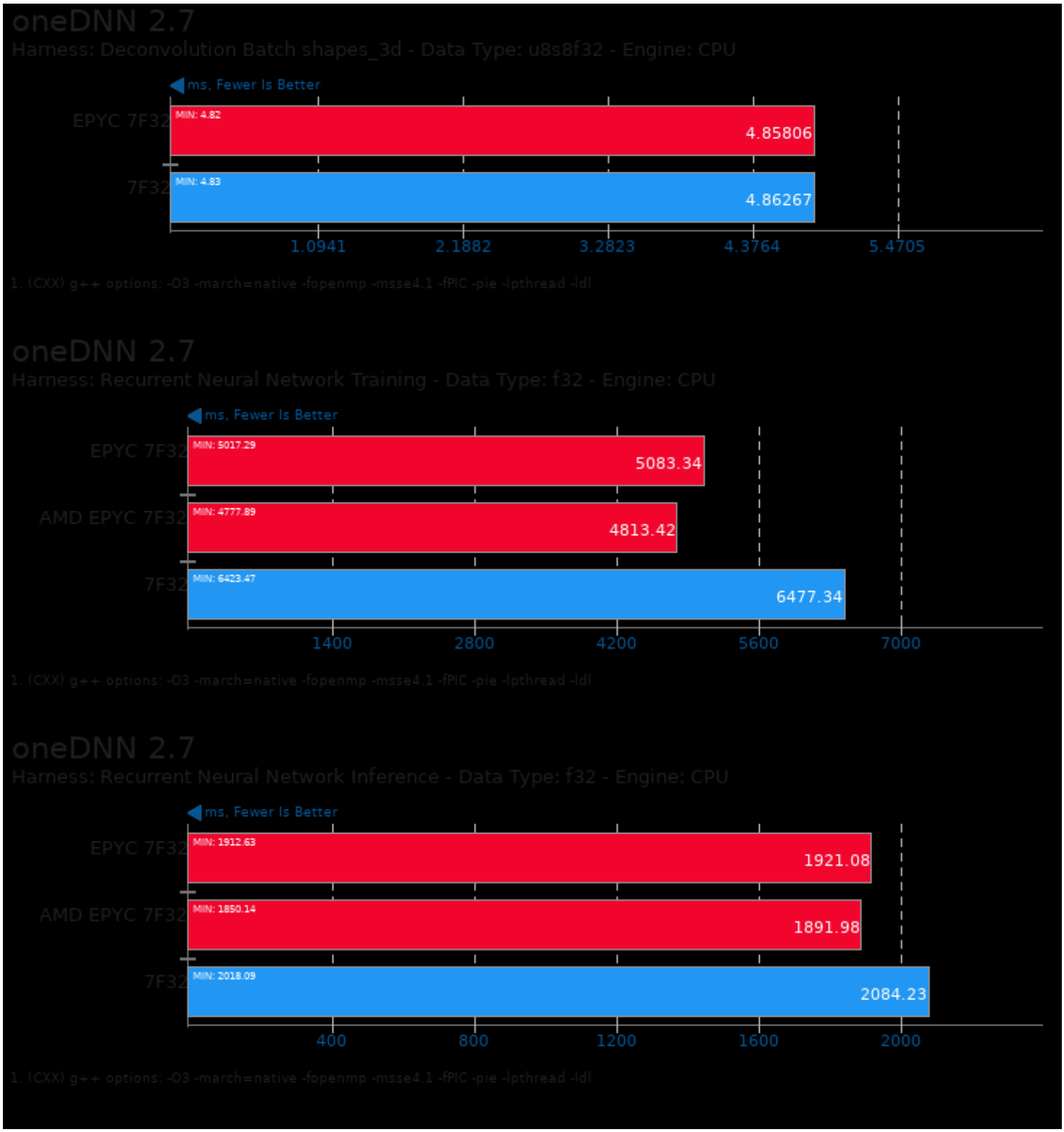

Neural Magic DeepSparse 1.1
Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Synchronous Single-Stream
items/sec, More Is Better
AMD EPYC 7F32
5.3593
7F32
5.0800
1.2058
2.4116
3.6174
4.8232
6.029
Neural Magic DeepSparse 1.1
Model: NLP Token Classification, BERT base uncased conll2003 - Scenario: Synchronous Single-Stream
ms/batch, Fewer Is Better
AMD EPYC 7F32
186.58
7F32
196.84
40
80
120
160
200
nginx 1.23.2
Connections: 20
Requests Per Second, More Is Better
AMD EPYC 7F32
46605.09
7F32
46953.57
10K
20K
30K
40K
50K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
nginx 1.23.2
Connections: 100
Requests Per Second, More Is Better
AMD EPYC 7F32
51130.85
7F32
50822.30
11K
22K
33K
44K
55K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2

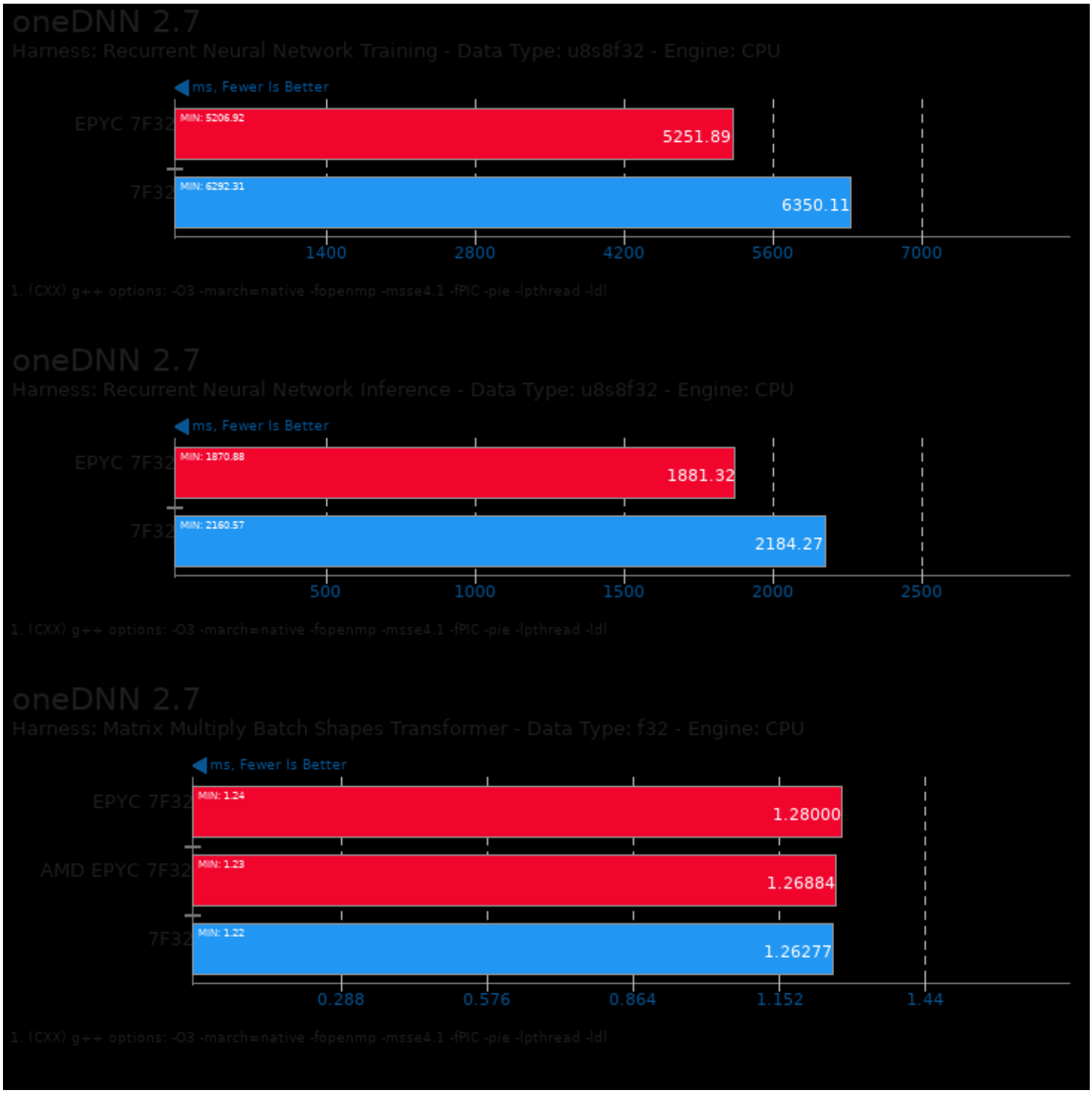

nginx 1.23.2
Connections: 200
Requests Per Second, More Is Better
AMD EPYC 7F32
51950.16
7F32
52189.35
11K
22K
33K
44K
55K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
nginx 1.23.2
Connections: 500
Requests Per Second, More Is Better
AMD EPYC 7F32
52055.66
7F32
52630.51
11K
22K
33K
44K
55K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2
nginx 1.23.2
Connections: 1000
Requests Per Second, More Is Better
AMD EPYC 7F32
50516.45
7F32
51272.35
11K
22K
33K
44K
55K
1. (CC) gcc options: -lluajit-5.1 -lm -lssl -lcrypto -lpthread -ldl -std=c99 -O2

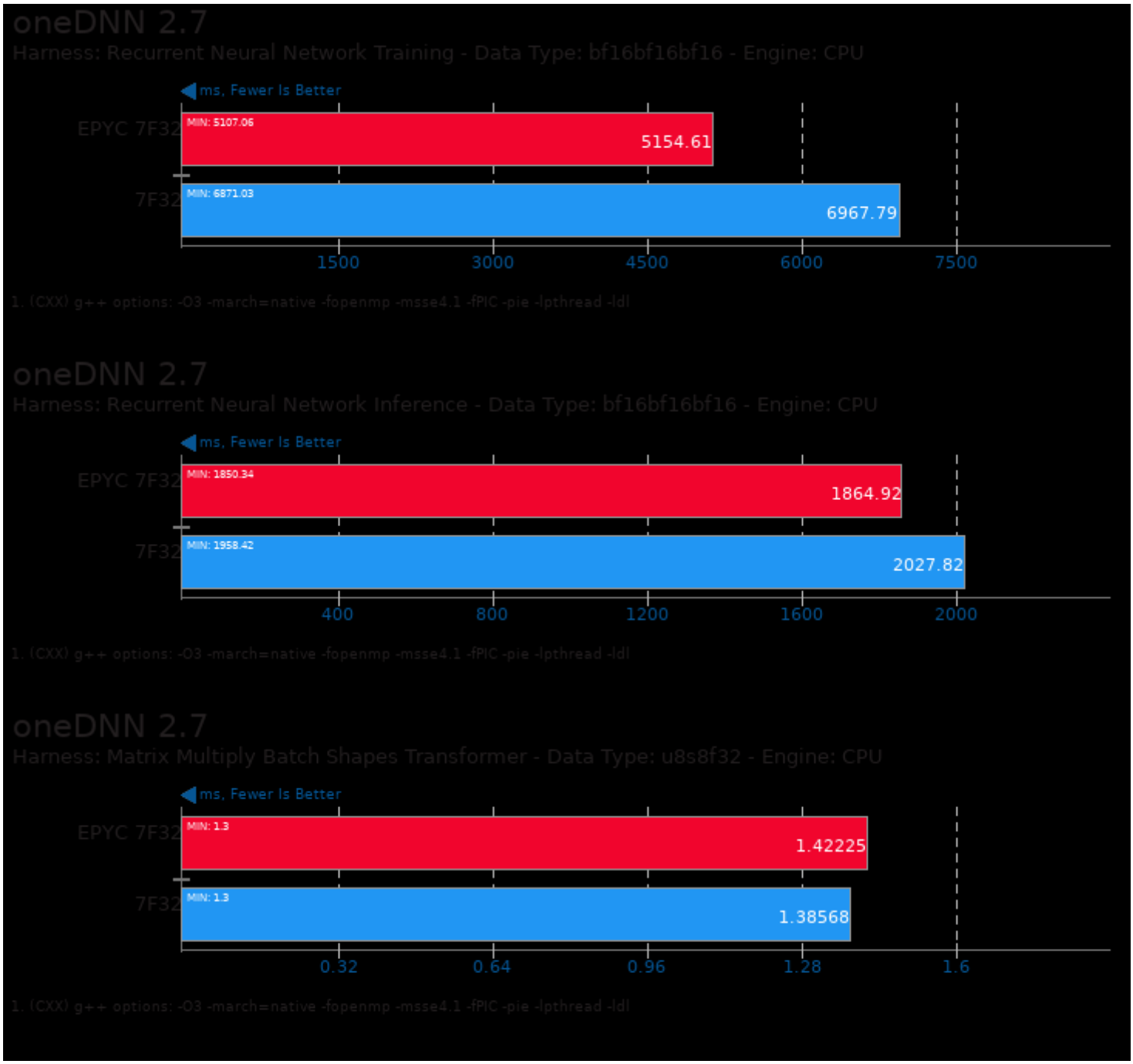

oneDNN 2.7
Harness: IP Shapes 1D - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 3.38
3.48079
AMD EPYC 7F32
MIN: 3.36
3.49229
7F32
MIN: 3.4
3.48771
0.7858
1.5716
2.3574
3.1432
3.929
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 8.55
8.67144
AMD EPYC 7F32
MIN: 7.17
7.35671
7F32
MIN: 11.05
11.36500
3
6
9
12
15
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: IP Shapes 1D - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 2.65
2.93735
7F32
MIN: 2.65
2.70369
0.6609
1.3218
1.9827
2.6436
3.3045
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl


oneDNN 2.7
Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 0.7
0.790351
7F32
MIN: 0.7
0.775961
0.1778
0.3556
0.5334
0.7112
0.889
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 9.37
9.55502
AMD EPYC 7F32
MIN: 7.9
8.11567
7F32
MIN: 13.34
13.48190
3
6
9
12
15
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Deconvolution Batch shapes_1d - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 5.99
9.60921
AMD EPYC 7F32
MIN: 9.06
9.76820
7F32
MIN: 6.19
10.03980
3
6
9
12
15
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl


oneDNN 2.7
Harness: Deconvolution Batch shapes_3d - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 6.42
6.50887
AMD EPYC 7F32
MIN: 6.48
6.54697
7F32
MIN: 6.49
6.54145
2
4
6
8
10
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 10.92
12.28
7F32
MIN: 14.24
14.68
4
8
12
16
20
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Deconvolution Batch shapes_1d - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 3.83
3.93432
7F32
MIN: 3.85
3.94084
0.8867
1.7734
2.6601
3.5468
4.4335
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

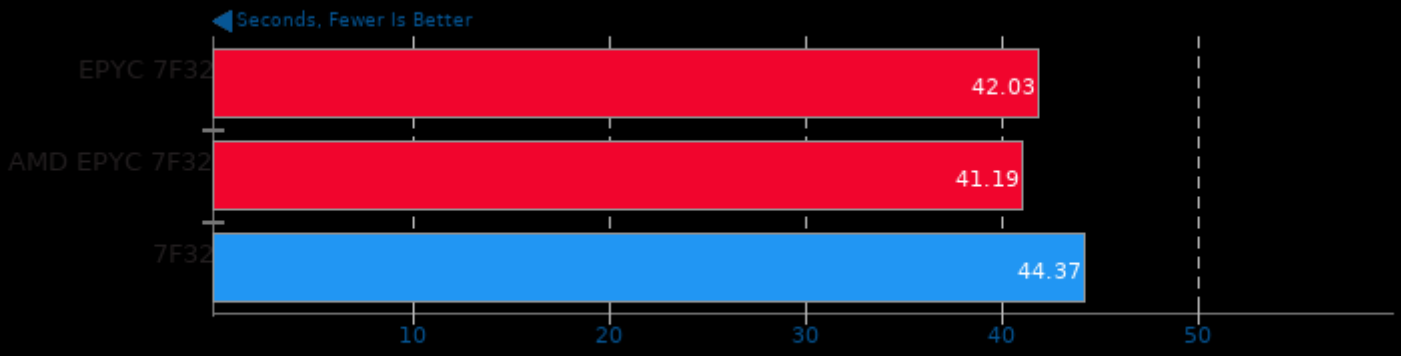

oneDNN 2.7
Harness: Deconvolution Batch shapes_3d - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 4.82
4.85806
7F32
MIN: 4.83
4.86267
1.0941
2.1882
3.2823
4.3764
5.4705
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 5017.29
5083.34
AMD EPYC 7F32
MIN: 4777.89
4813.42
7F32
MIN: 6423.47
6477.34
1400
2800
4200
5600
7000
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 1912.63
1921.08
AMD EPYC 7F32
MIN: 1850.14
1891.98
7F32
MIN: 2018.09
2084.23
400
800
1200
1600
2000
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl


oneDNN 2.7
Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 5206.92
5251.89
7F32
MIN: 6292.31
6350.11
1400
2800
4200
5600
7000
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Recurrent Neural Network Inference - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 1870.88
1881.32
7F32
MIN: 2160.57
2184.27
500
1000
1500
2000
2500
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 1.24
1.28000
AMD EPYC 7F32
MIN: 1.23
1.26884
7F32
MIN: 1.22
1.26277
0.288
0.576
0.864
1.152
1.44
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl


oneDNN 2.7
Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 5107.06
5154.61
7F32
MIN: 6871.03
6967.79
1500
3000
4500
6000
7500
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 1850.34
1864.92
7F32
MIN: 1958.42
2027.82
400
800
1200
1600
2000
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl
oneDNN 2.7
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: u8s8f32 - Engine: CPU
ms, Fewer Is Better
EPYC 7F32
MIN: 1.3
1.42225
7F32
MIN: 1.3
1.38568
0.32
0.64
0.96
1.28
1.6
1. (CXX) g++ options: -O3 -march=native -fopenmp -msse4.1 -fPIC -pie -lpthread -ldl

OpenFOAM 10

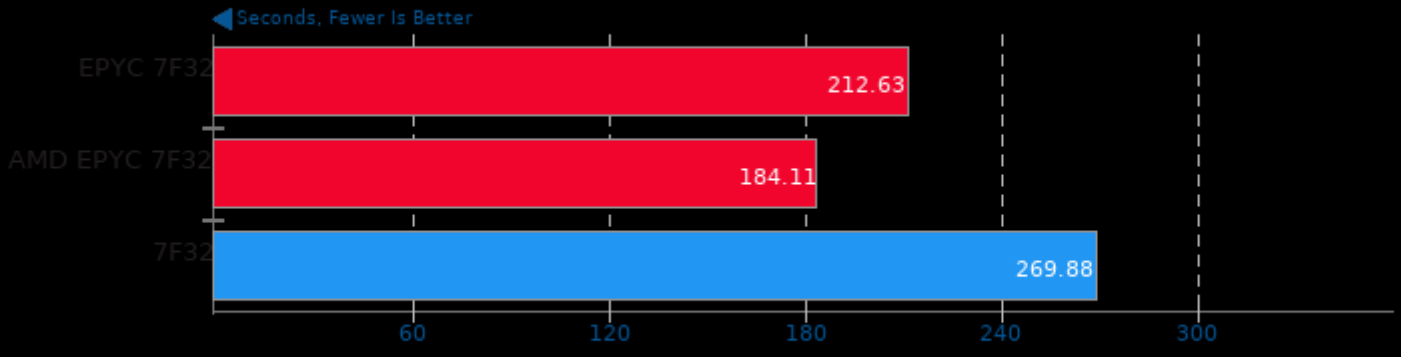
Input: drivaerFastback, Small Mesh Size - Mesh Time



1. (CXX) g++ options: -std=c++14 -m64 -O3 -ftemplate-depth-100 -fPIC -fuse-ld=bfd -Xlinker --add-needed --no-as-needed -lphysicalProperties -lspecie -

OpenFOAM 10

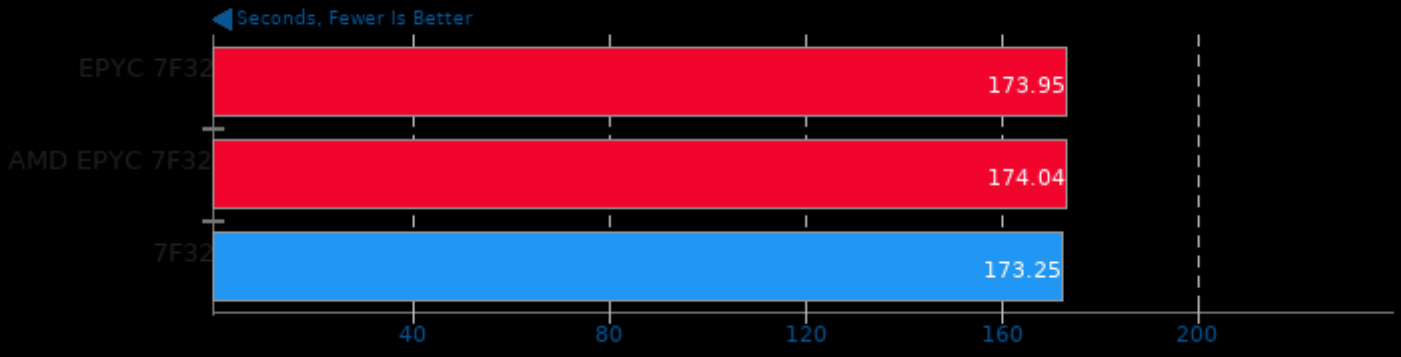
Input: drivaerFastback, Small Mesh Size - Execution Time

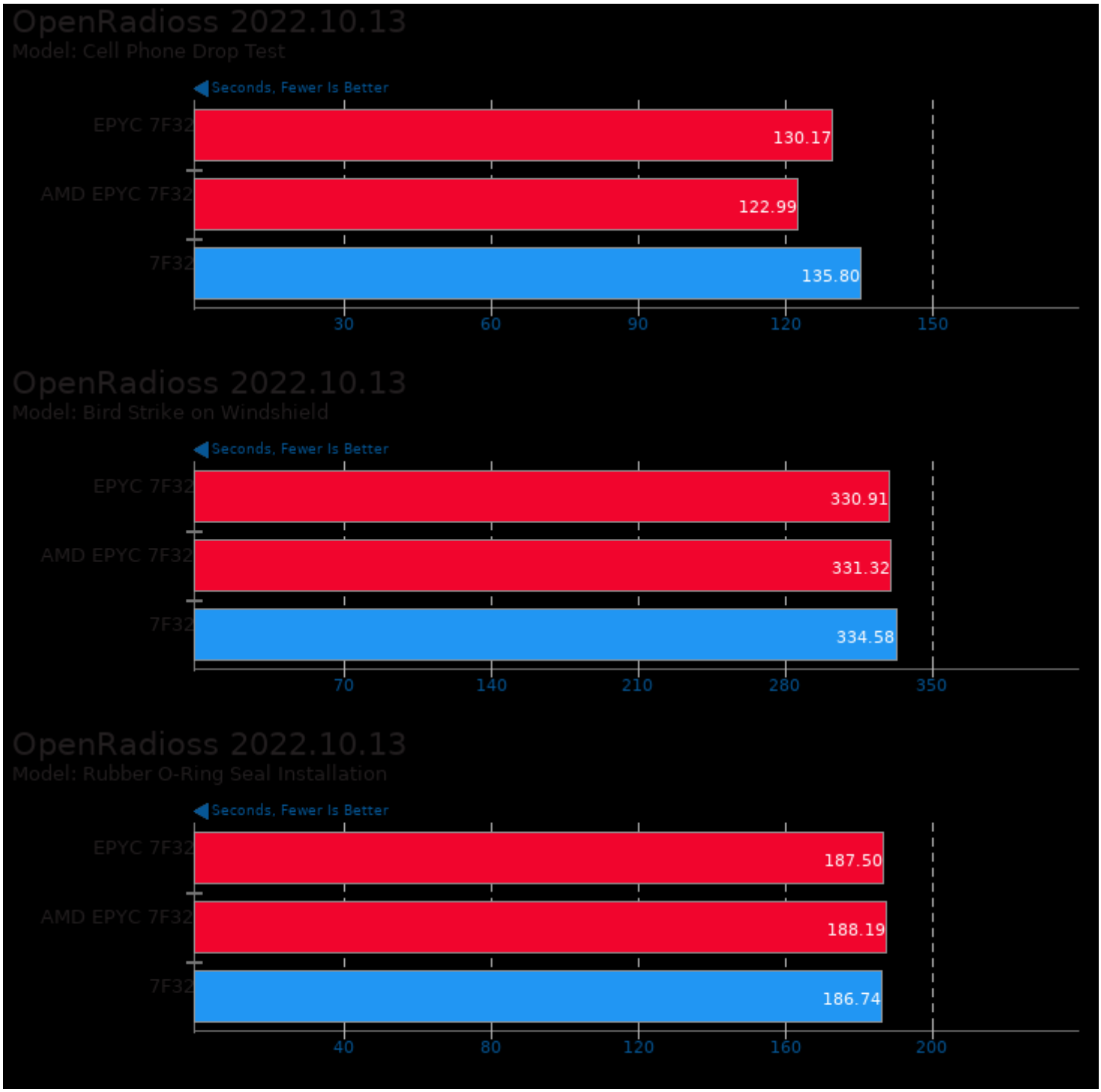


1. (CXX) g++ options: -std=c++14 -m64 -O3 -ftemplate-depth-100 -fPIC -fuse-ld=bfd -Xlinker --add-needed --no-as-needed -lphysicalProperties -lspecie -

OpenRadioss 2022.10.13

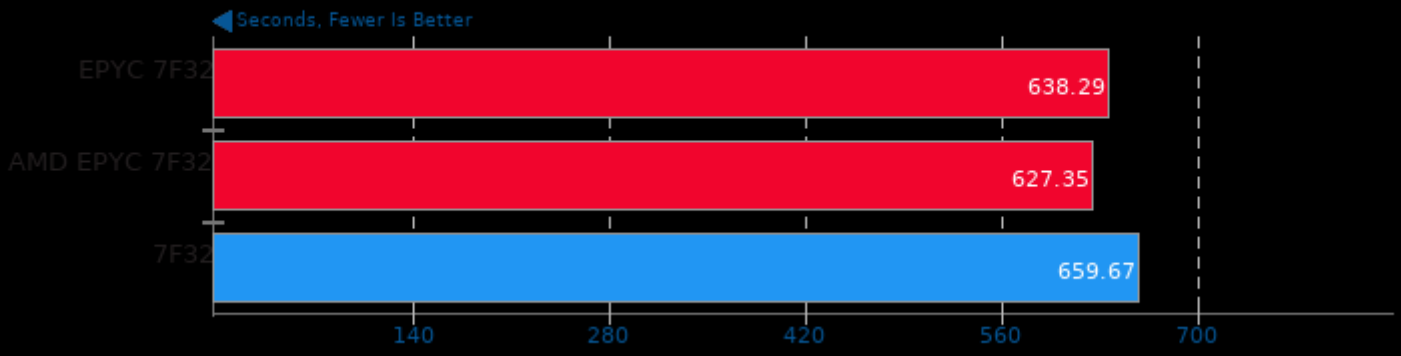
Model: Bumper Beam




OpenRadioss 2022.10.13
Model: Cell Phone Drop Test
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
130.17
122.99
135.80
30
60
90
120
150
OpenRadioss 2022.10.13
Model: Bird Strike on Windshield
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
330.91
331.32
334.58
70
140
210
280
350
OpenRadioss 2022.10.13
Model: Rubber O-Ring Seal Installation
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
187.50
188.19
186.74
40
80
120
160
200

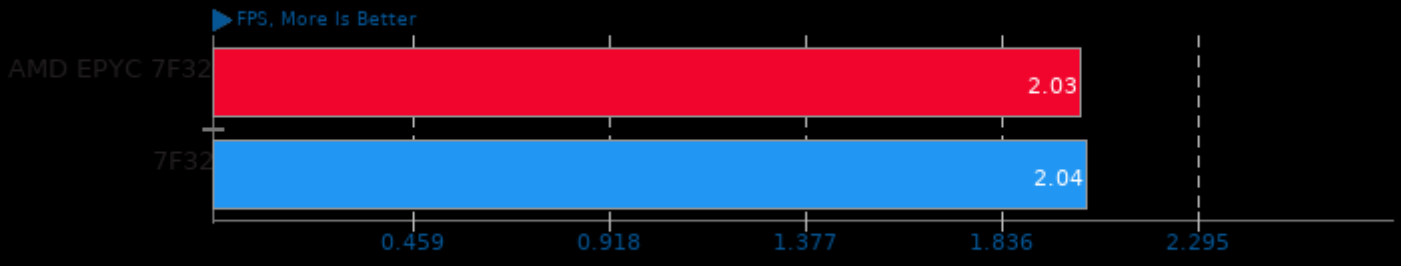
OpenRadioss 2022.10.13

Model: INIVOL and Fluid Structure Interaction Drop Container



OpenVINO 2022.2.dev

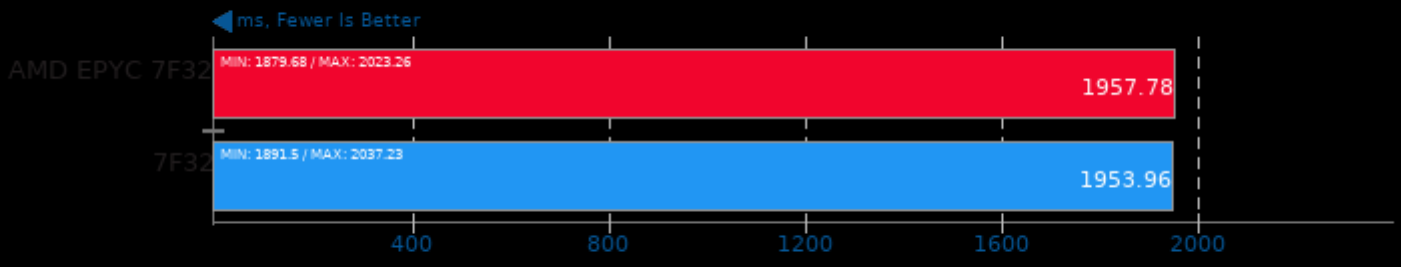
Model: Face Detection FP16 - Device: CPU



1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared

OpenVINO 2022.2.dev

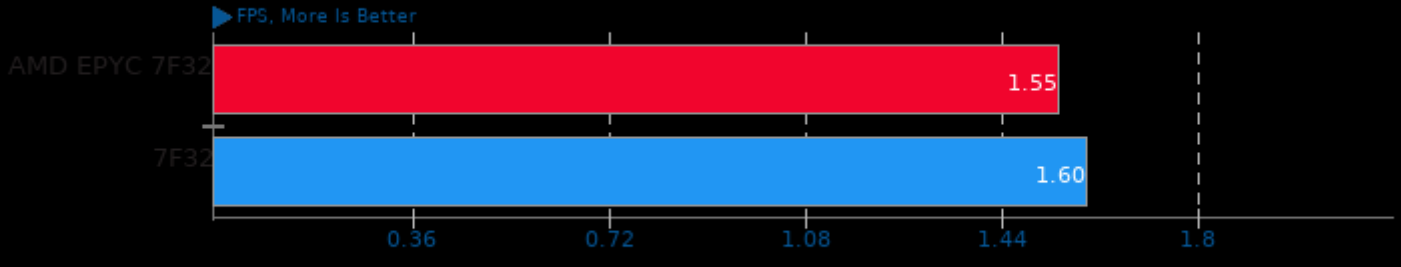
Model: Face Detection FP16 - Device: CPU



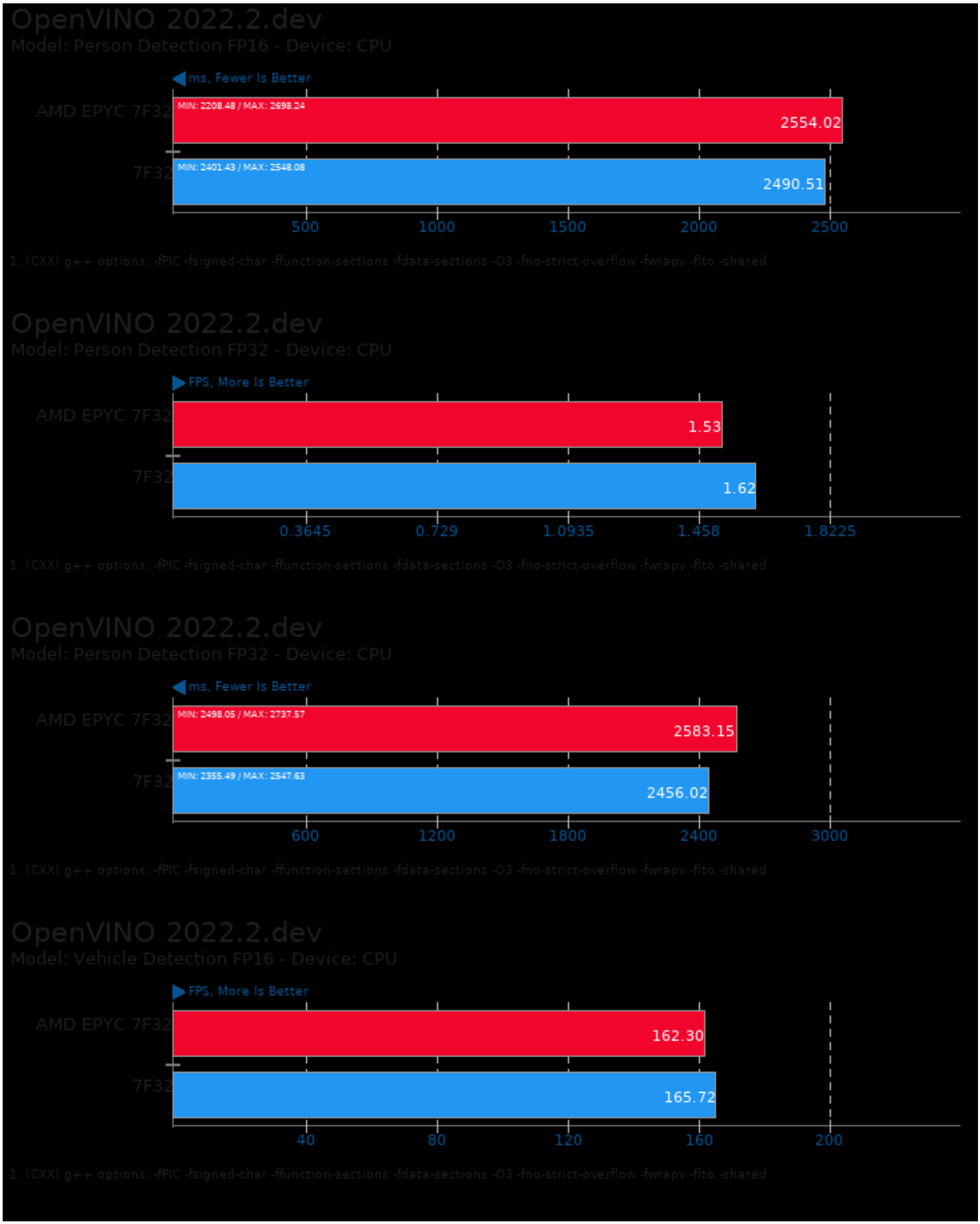
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared

OpenVINO 2022.2.dev

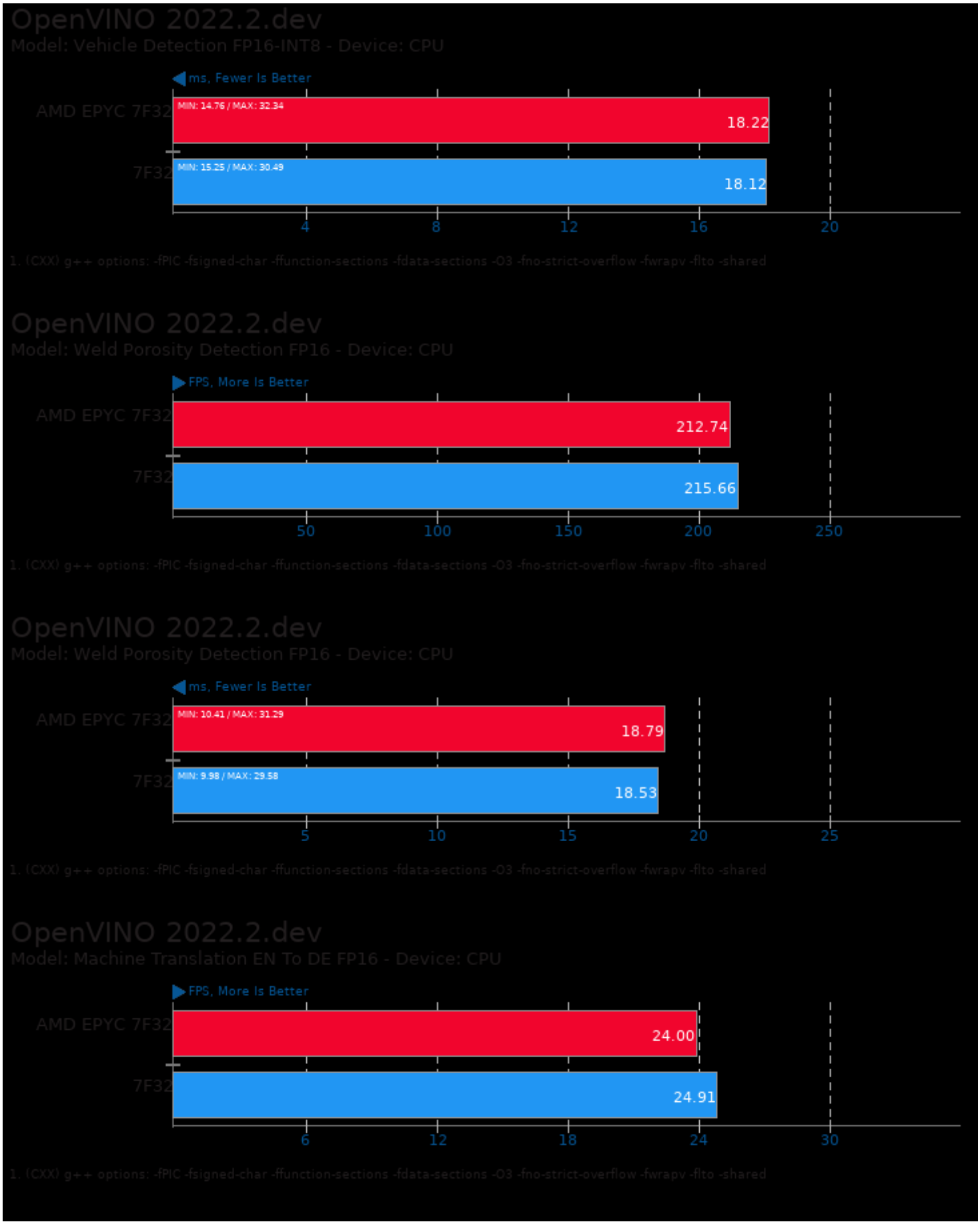
Model: Person Detection FP16 - Device: CPU

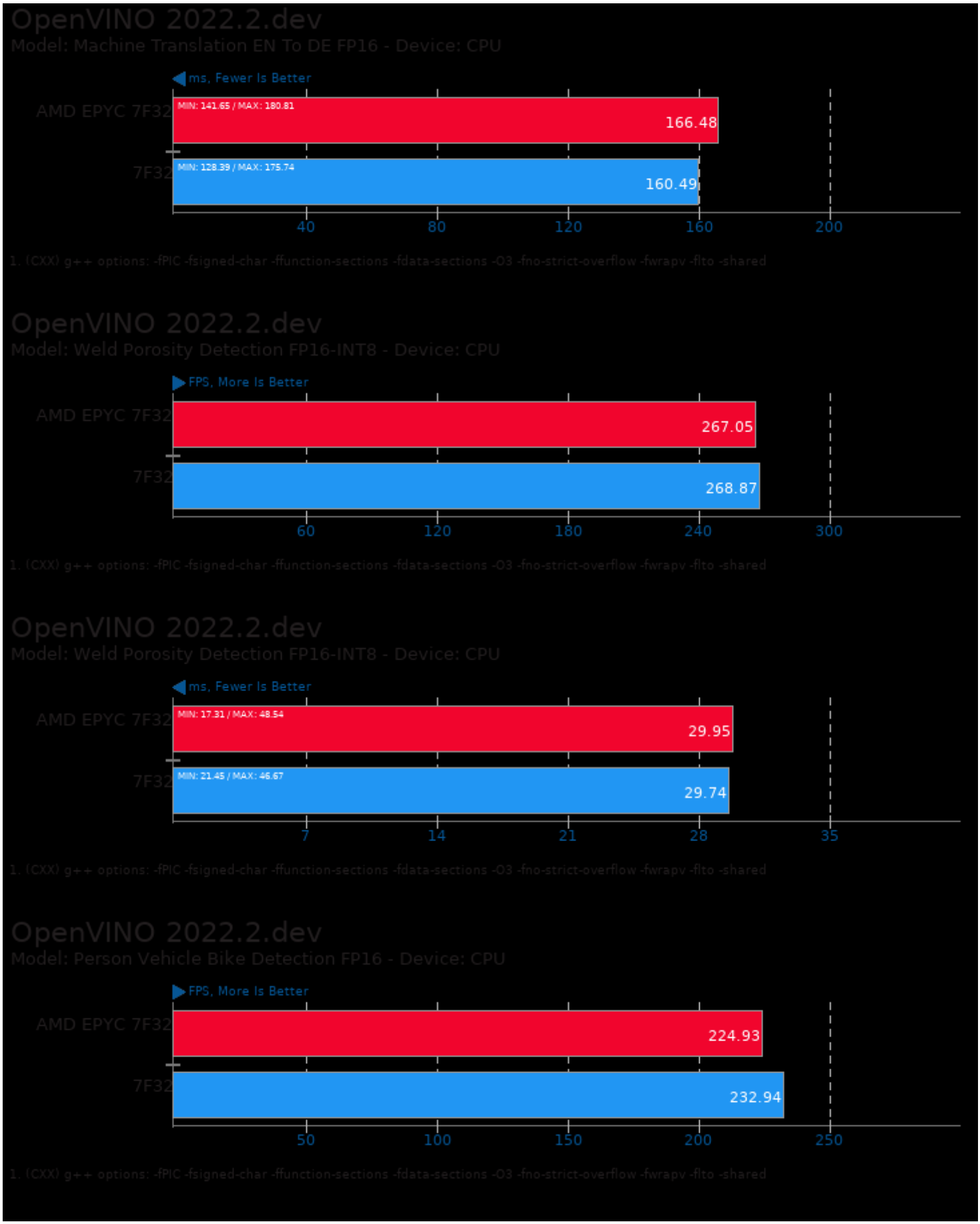


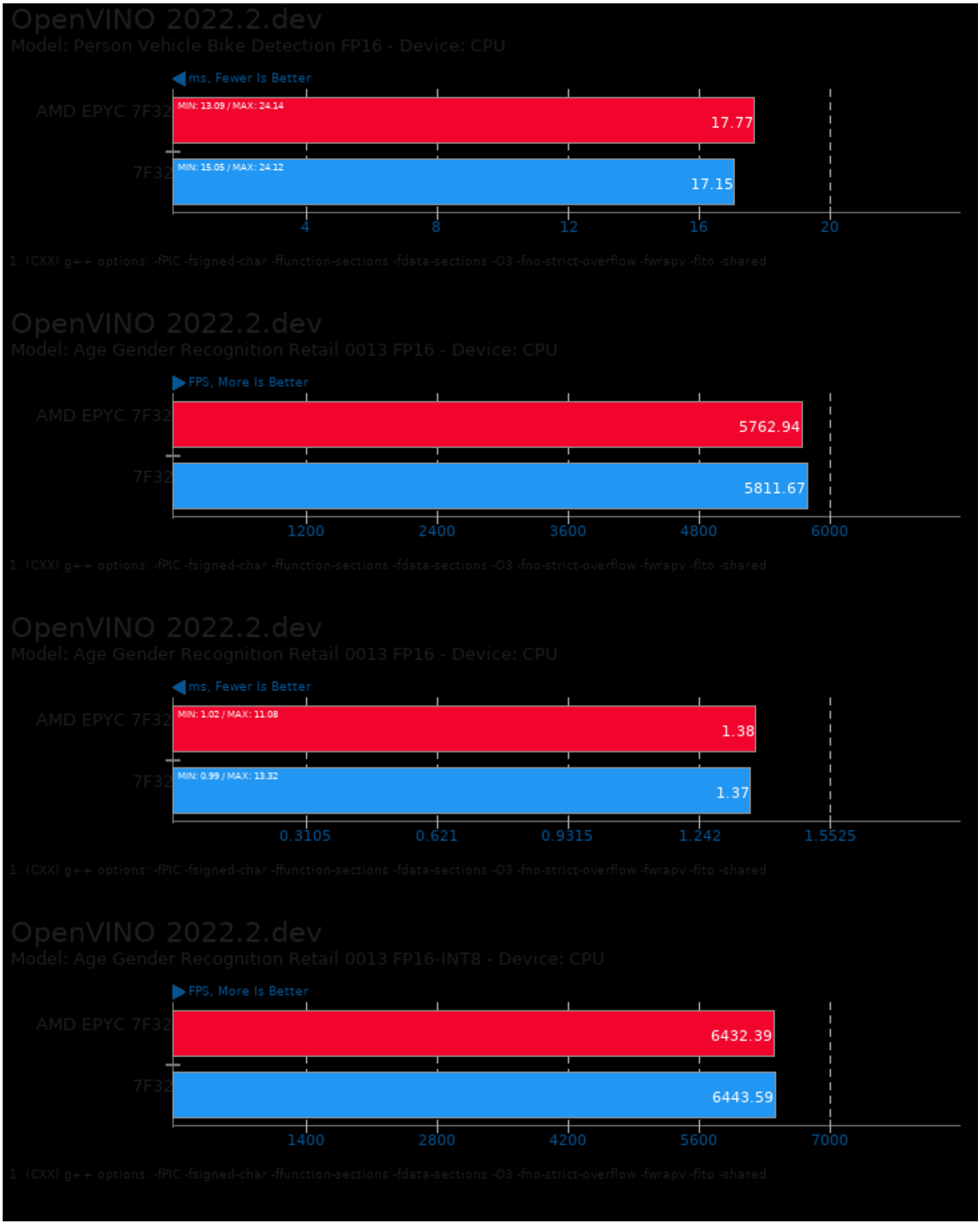
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared

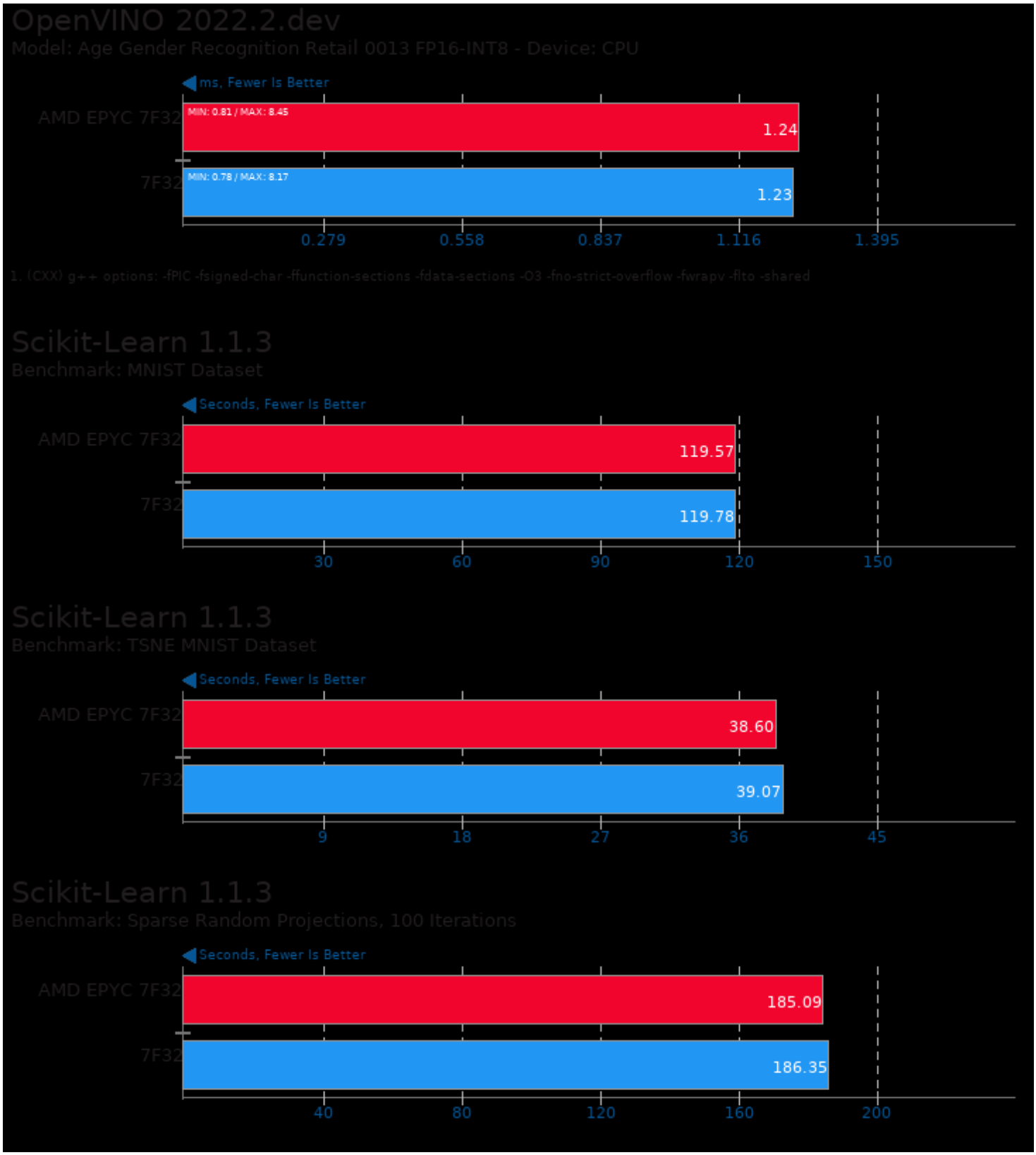

OpenVINO 2022.2.dev
Model: Person Detection FP16 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 2208.48 / MAX: 2698.24
2554.02
7F32
MIN: 2401.43 / MAX: 2548.08
2490.51
500
1000
1500
2000
2500
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Person Detection FP32 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
1.53
7F32
1.62
0.3645
0.729
1.0935
1.458
1.8225
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Person Detection FP32 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 2498.05 / MAX: 2737.57
2583.15
7F32
MIN: 2355.49 / MAX: 2547.63
2456.02
600
1200
1800
2400
3000
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Vehicle Detection FP16 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
162.30
7F32
165.72
40
80
120
160
200
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared


OpenVINO 2022.2.dev
Model: Vehicle Detection FP16 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 21.3 / MAX: 35.58
24.63
7F32
MIN: 20.63 / MAX: 35.91
24.12
6
12
18
24
30
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Face Detection FP16-INT8 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
2.71
7F32
2.73
0.6143
1.2286
1.8429
2.4572
3.0715
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Face Detection FP16-INT8 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 1444.65 / MAX: 1522.72
1468.22
7F32
MIN: 1387.48 / MAX: 1520.08
1461.33
300
600
900
1200
1500
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Vehicle Detection FP16-INT8 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
219.40
7F32
220.62
50
100
150
200
250
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared


OpenVINO 2022.2.dev
Model: Vehicle Detection FP16-INT8 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 14.76 / MAX: 32.34
18.22
7F32
MIN: 15.25 / MAX: 30.49
18.12
4
8
12
16
20
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
212.74
7F32
215.66
50
100
150
200
250
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 10.41 / MAX: 31.29
18.79
7F32
MIN: 9.98 / MAX: 29.58
18.53
5
10
15
20
25
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Machine Translation EN To DE FP16 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
24.00
7F32
24.91
6
12
18
24
30
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared


OpenVINO 2022.2.dev
Model: Machine Translation EN To DE FP16 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 141.65 / MAX: 180.81
166.48
7F32
MIN: 128.39 / MAX: 175.74
160.49
40
80
120
160
200
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16-INT8 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
267.05
7F32
268.87
60
120
180
240
300
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16-INT8 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 17.31 / MAX: 48.54
29.95
7F32
MIN: 21.45 / MAX: 46.67
29.74
7
14
21
28
35
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Person Vehicle Bike Detection FP16 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
224.93
7F32
232.94
50
100
150
200
250
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared


OpenVINO 2022.2.dev
Model: Person Vehicle Bike Detection FP16 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 13.09 / MAX: 24.14
17.77
7F32
MIN: 15.05 / MAX: 24.12
17.15
4
8
12
16
20
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
5762.94
7F32
5811.67
1200
2400
3600
4800
6000
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 1.02 / MAX: 11.08
1.38
7F32
MIN: 0.99 / MAX: 13.32
1.37
0.3105
0.621
0.9315
1.242
1.5525
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16-INT8 - Device: CPU
FPS, More Is Better
AMD EPYC 7F32
6432.39
7F32
6443.59
1400
2800
4200
5600
7000
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared


OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16-INT8 - Device: CPU
ms, Fewer Is Better
AMD EPYC 7F32
MIN: 0.81 / MAX: 8.45
1.24
7F32
MIN: 0.78 / MAX: 8.17
1.23
0.279
0.558
0.837
1.116
1.395
1. (CXX) g++ options: -fPIC -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -flto -shared
Scikit-Learn 1.1.3
Benchmark: MNIST Dataset
Seconds, Fewer Is Better
AMD EPYC 7F32
119.57
7F32
119.78
30
60
90
120
150
Scikit-Learn 1.1.3
Benchmark: TSNE MNIST Dataset
Seconds, Fewer Is Better
AMD EPYC 7F32
38.60
7F32
39.07
9
18
27
36
45
Scikit-Learn 1.1.3
Benchmark: Sparse Random Projections, 100 Iterations
Seconds, Fewer Is Better
AMD EPYC 7F32
185.09
7F32
186.35
40
80
120
160
200


SMHasher 2022-08-22
Hash: wyhash
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
21044.04
21040.94
21041.15
5K
10K
15K
20K
25K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: wyhash
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
28.39
28.39
28.39
7
14
21
28
35
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: SHA3-256
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
136.17
136.22
136.24
30
60
90
120
150
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread


SMHasher 2022-08-22
Hash: SHA3-256
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
2843.50
2848.54
2840.32
600
1200
1800
2400
3000
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: Spooky32
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
13214.70
13216.41
13220.33
3K
6K
9K
12K
15K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: Spooky32
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
56.22
55.92
56.14
13
26
39
52
65
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread

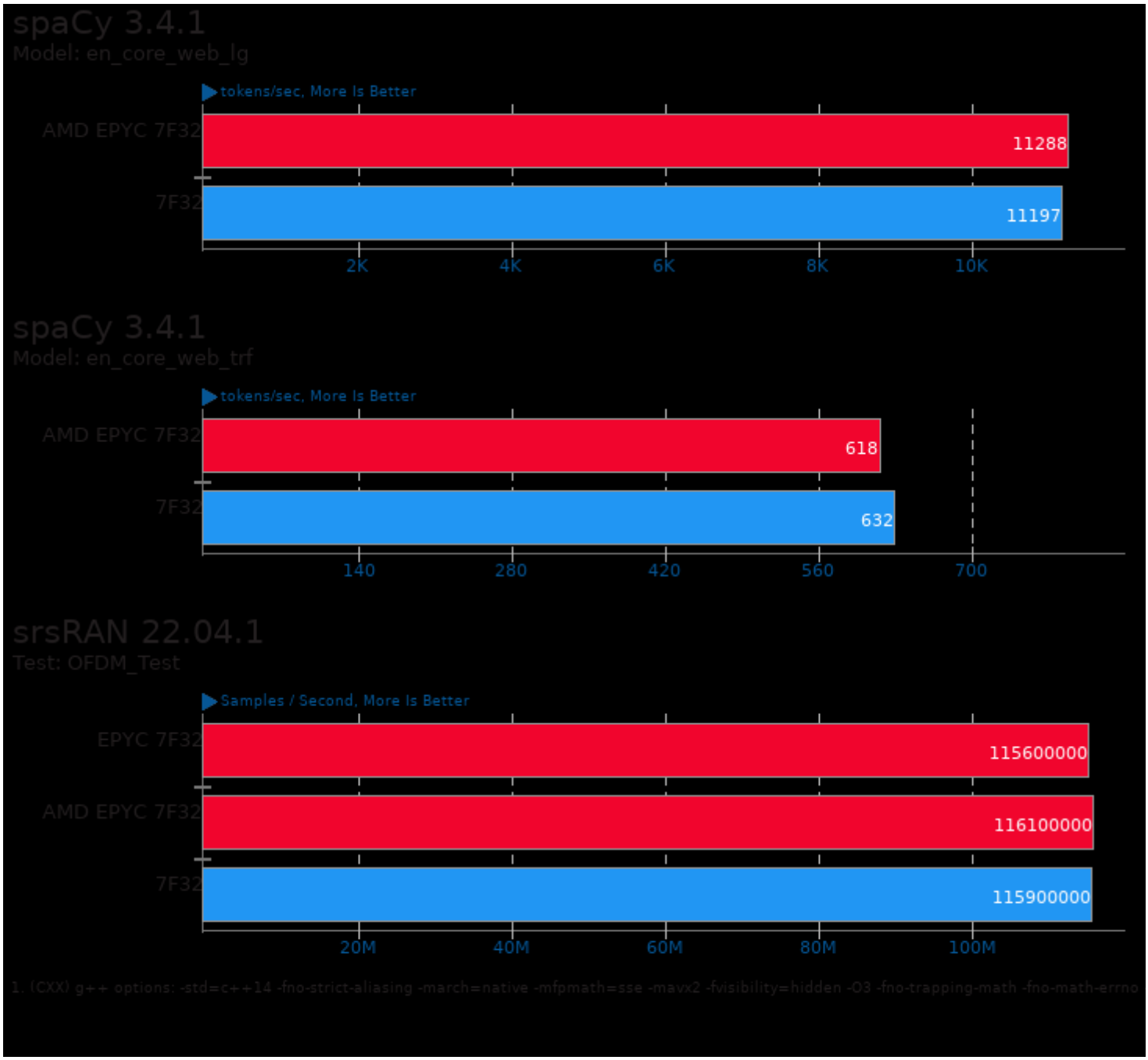

SMHasher 2022-08-22
Hash: fasthash32
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
6027.75
6027.73
6027.12
1300
2600
3900
5200
6500
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: fasthash32
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
40.68
40.68
40.69
9
18
27
36
45
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: FarmHash128
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
14311.97
14312.80
14307.94
3K
6K
9K
12K
15K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread


SMHasher 2022-08-22
Hash: FarmHash128
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
70.29
70.29
70.39
16
32
48
64
80
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: t1ha2_atonce
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
14595.36
14583.40
14594.36
3K
6K
9K
12K
15K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: t1ha2_atonce
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
38.50
38.50
38.50
9
18
27
36
45
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread

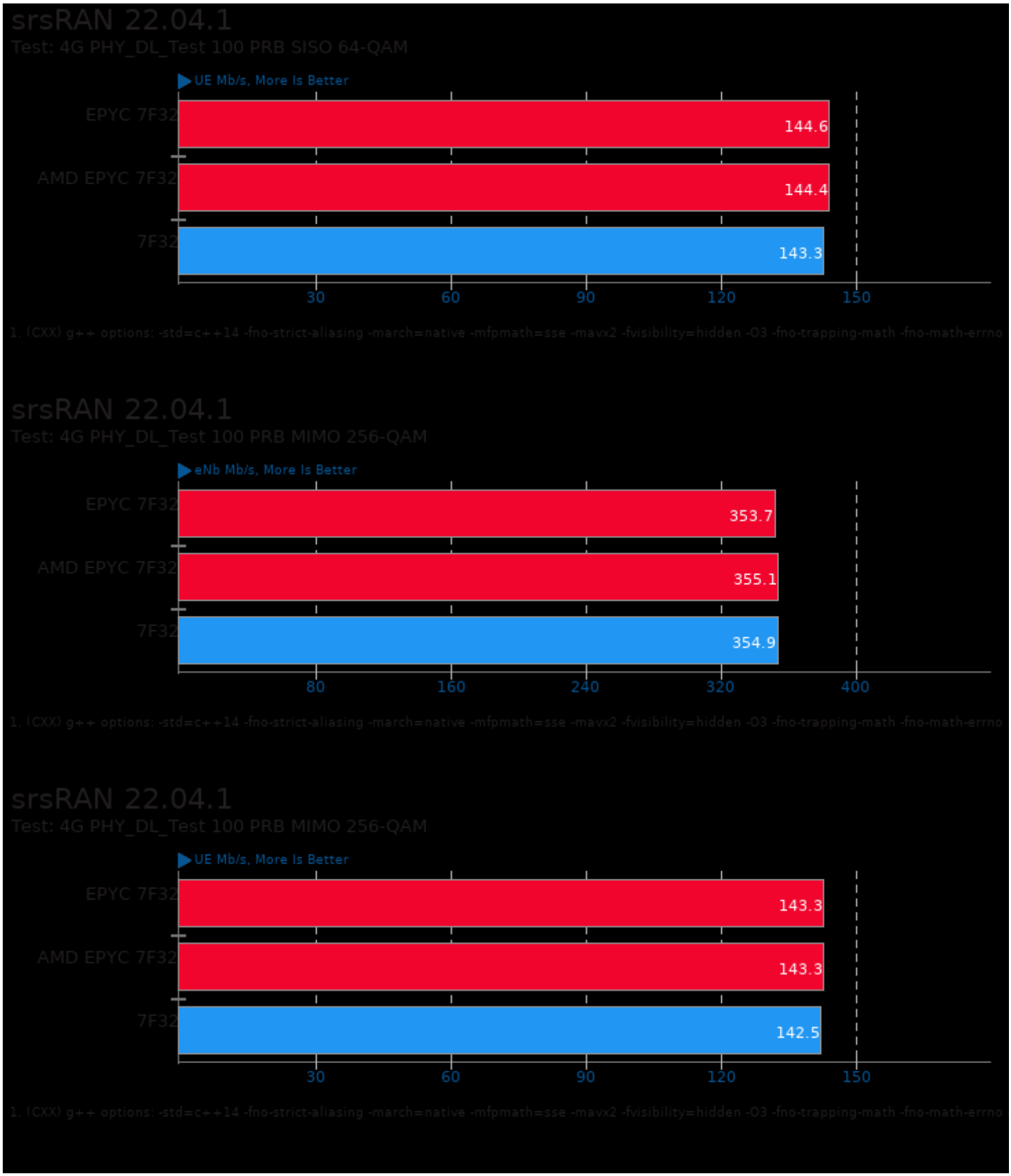

SMHasher 2022-08-22
Hash: FarmHash32 x86_64 AVX
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
24494.95
24384.85
24497.14
5K
10K
15K
20K
25K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: FarmHash32 x86_64 AVX
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
47.68
47.68
47.68
11
22
33
44
55
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: t1ha0_aes_avx2 x86_64
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
59489.50
59287.09
60752.57
13K
26K
39K
52K
65K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread


SMHasher 2022-08-22
Hash: t1ha0_aes_avx2 x86_64
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
37.77
37.77
37.77
9
18
27
36
45
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: MeowHash x86_64 AES-NI
MiB/sec, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
34313.46
34206.07
34310.93
7K
14K
21K
28K
35K
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread
SMHasher 2022-08-22
Hash: MeowHash x86_64 AES-NI
cycles/hash, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
63.12
63.07
63.11
14
28
42
56
70
1. (CXX) g++ options: -march=native -O3 -flto -fno-fat-lto-objects -lpthread

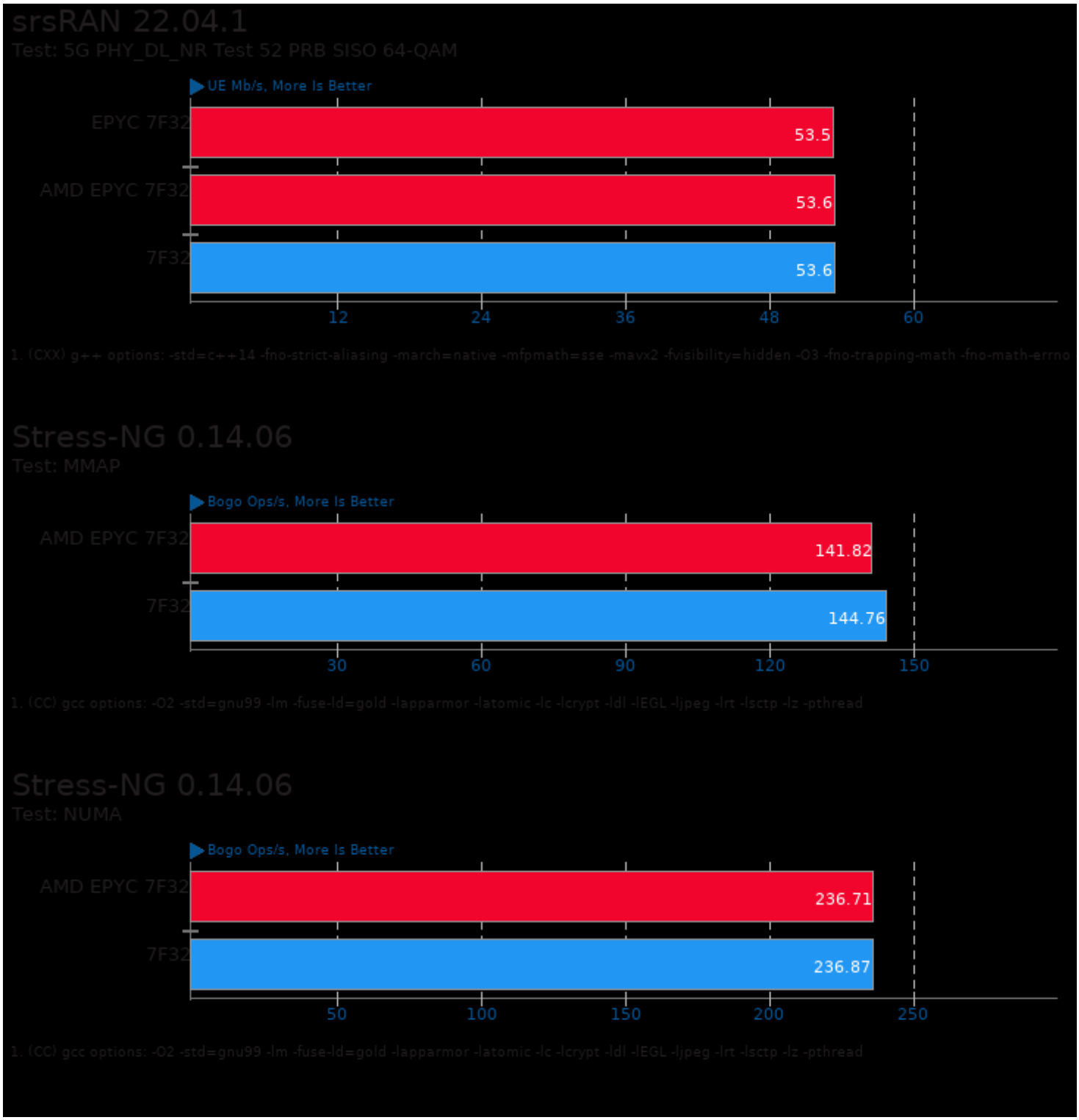
eptc-7f32

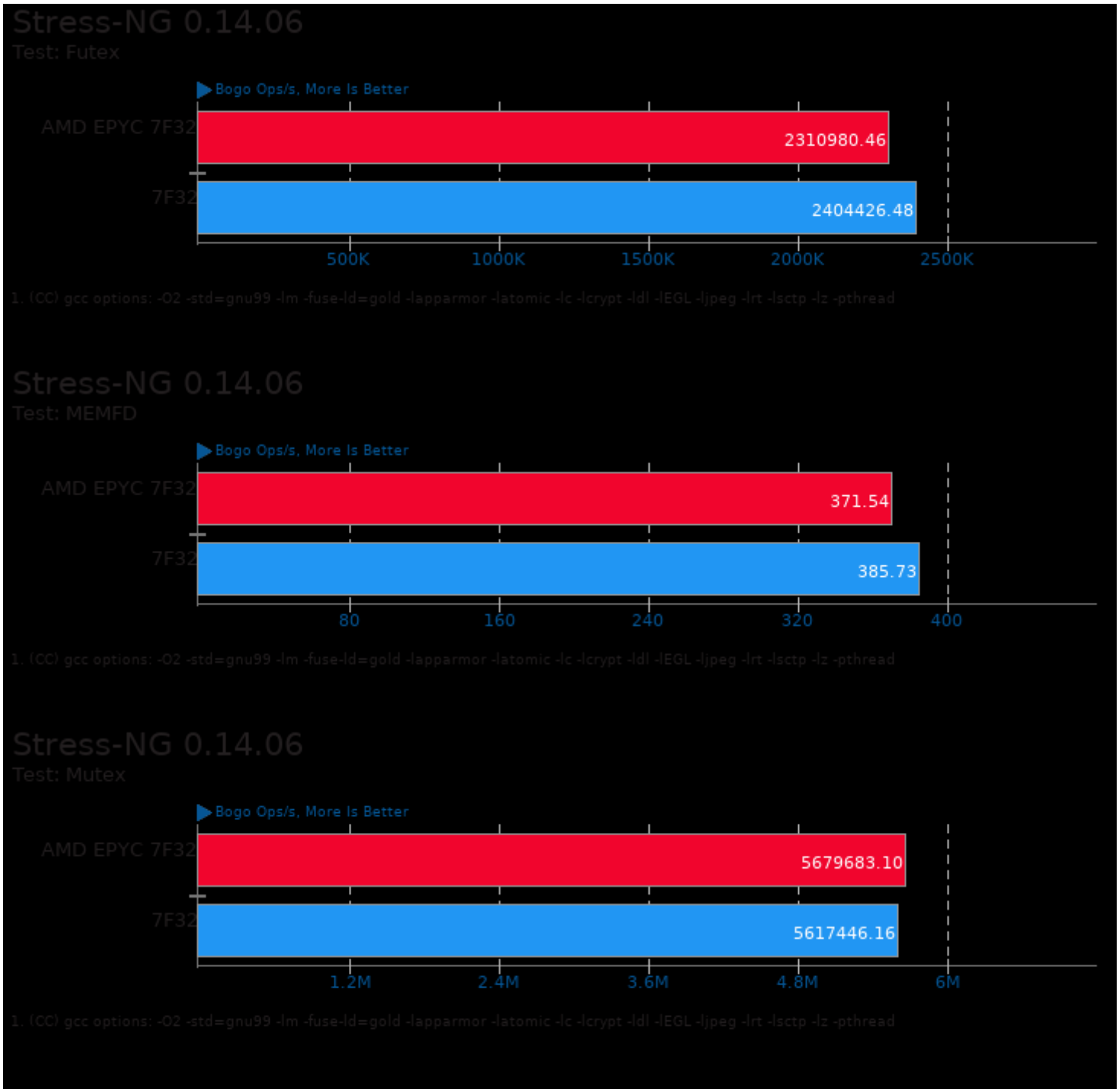

spaCy 3.4.1
Model: en_core_web_lg
tokens/sec, More Is Better
AMD EPYC 7F32
11288
7F32
11197
2K
4K
6K
8K
10K
spaCy 3.4.1
Model: en_core_web_trf
tokens/sec, More Is Better
AMD EPYC 7F32
618
7F32
632
140
280
420
560
700
srsRAN 22.04.1
Test: OFDM_Test
Samples / Second, More Is Better
EPYC 7F32
115600000
AMD EPYC 7F32
116100000
7F32
115900000
20M
40M
60M
80M
100M
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

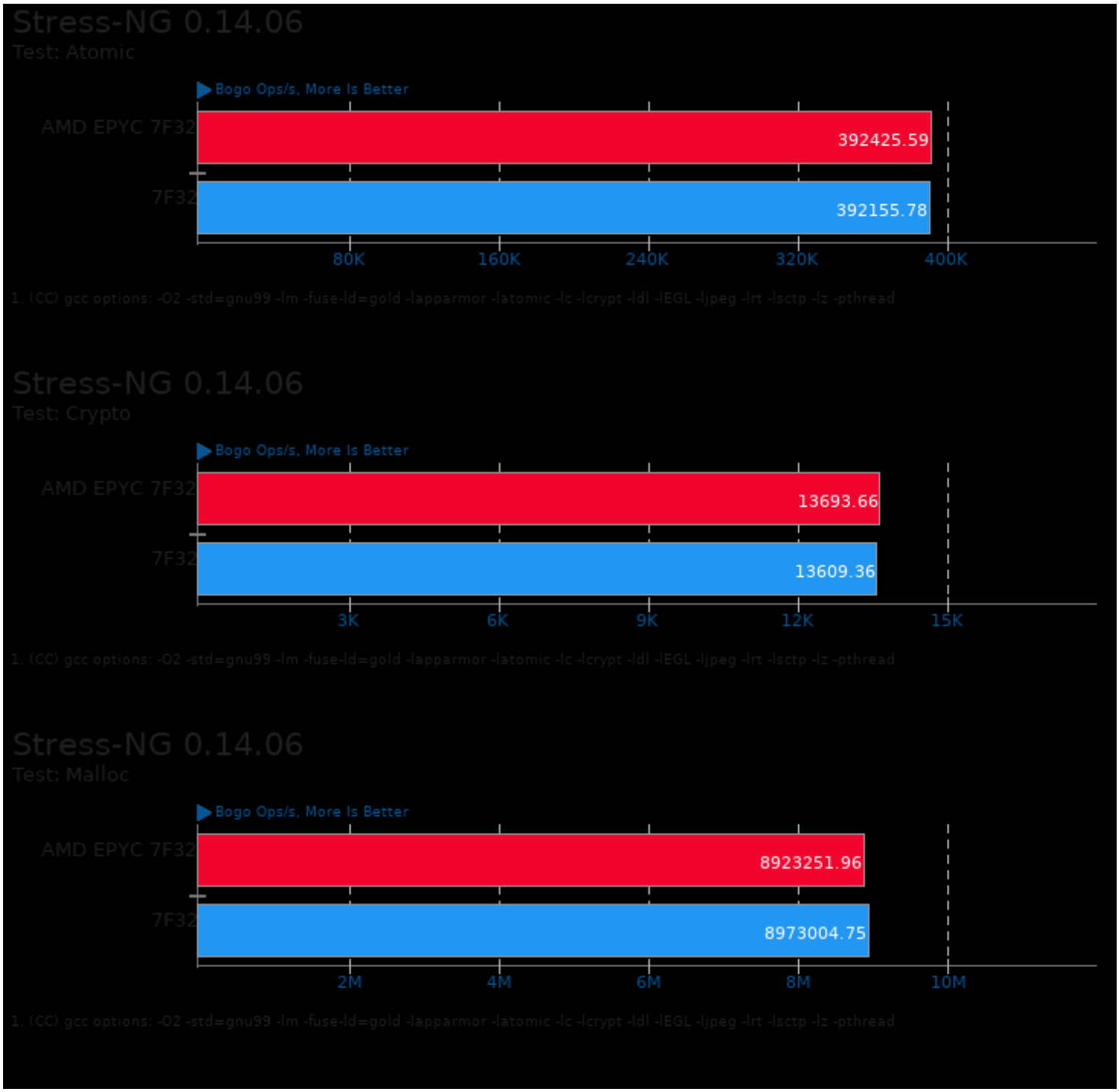

srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM
eNb Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
328.5
327.5
327.7
70
140
210
280
350
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB MIMO 64-QAM
UE Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
133.3
133.4
132.6
30
60
90
120
150
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM
eNb Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
328.3
329.5
328.8
70
140
210
280
350
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

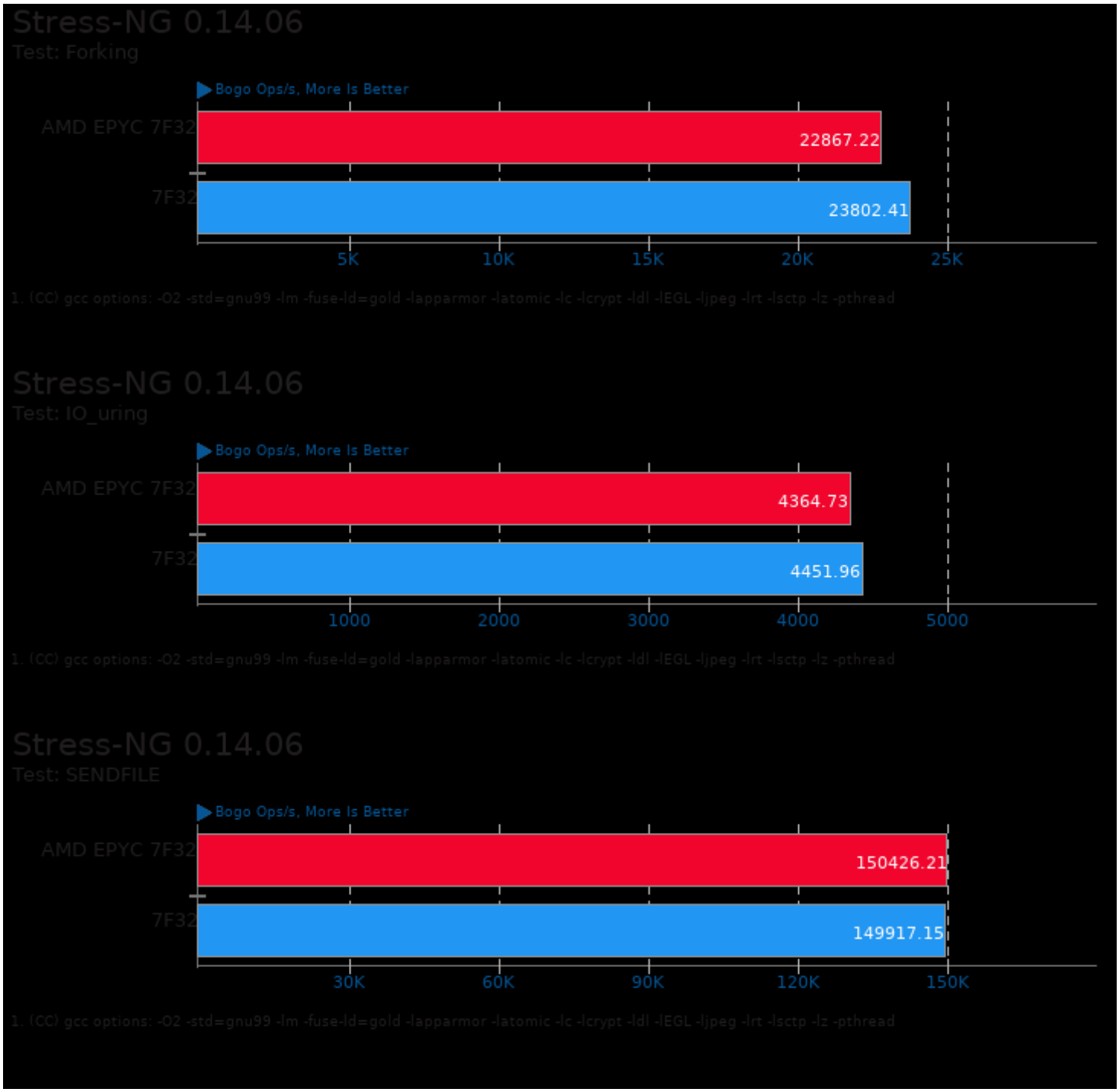

srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM
UE Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
144.6
144.4
143.3
30
60
90
120
150
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
eNb Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
353.7
355.1
354.9
80
160
240
320
400
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
UE Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
143.3
143.3
142.5
30
60
90
120
150
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

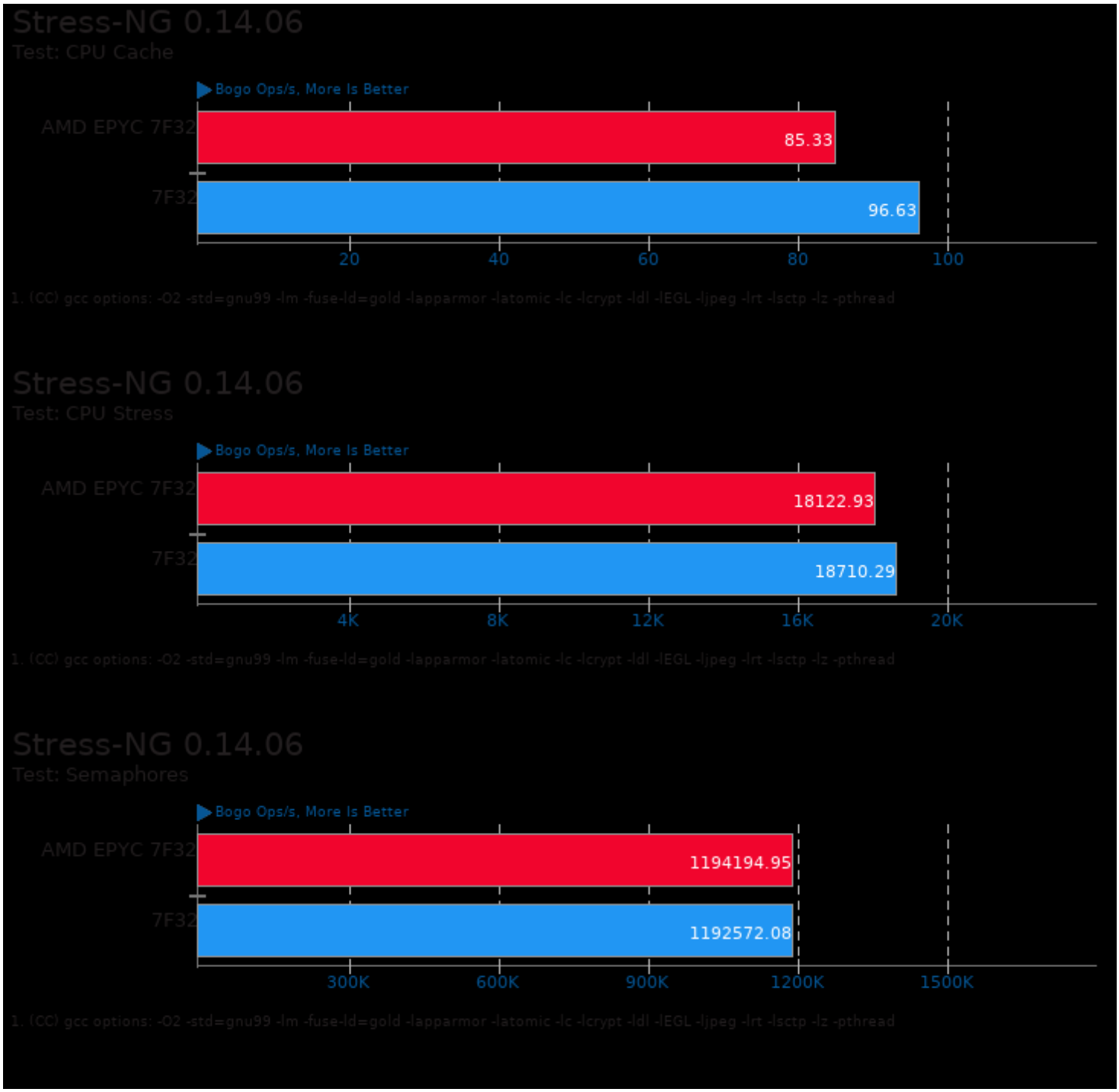

srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM
eNb Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
353.7
354.0
354.0
80
160
240
320
400
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 256-QAM
UE Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
152.3
152.5
151.5
30
60
90
120
150
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM
eNb Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
95.1
95.3
95.4
20
40
60
80
100
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

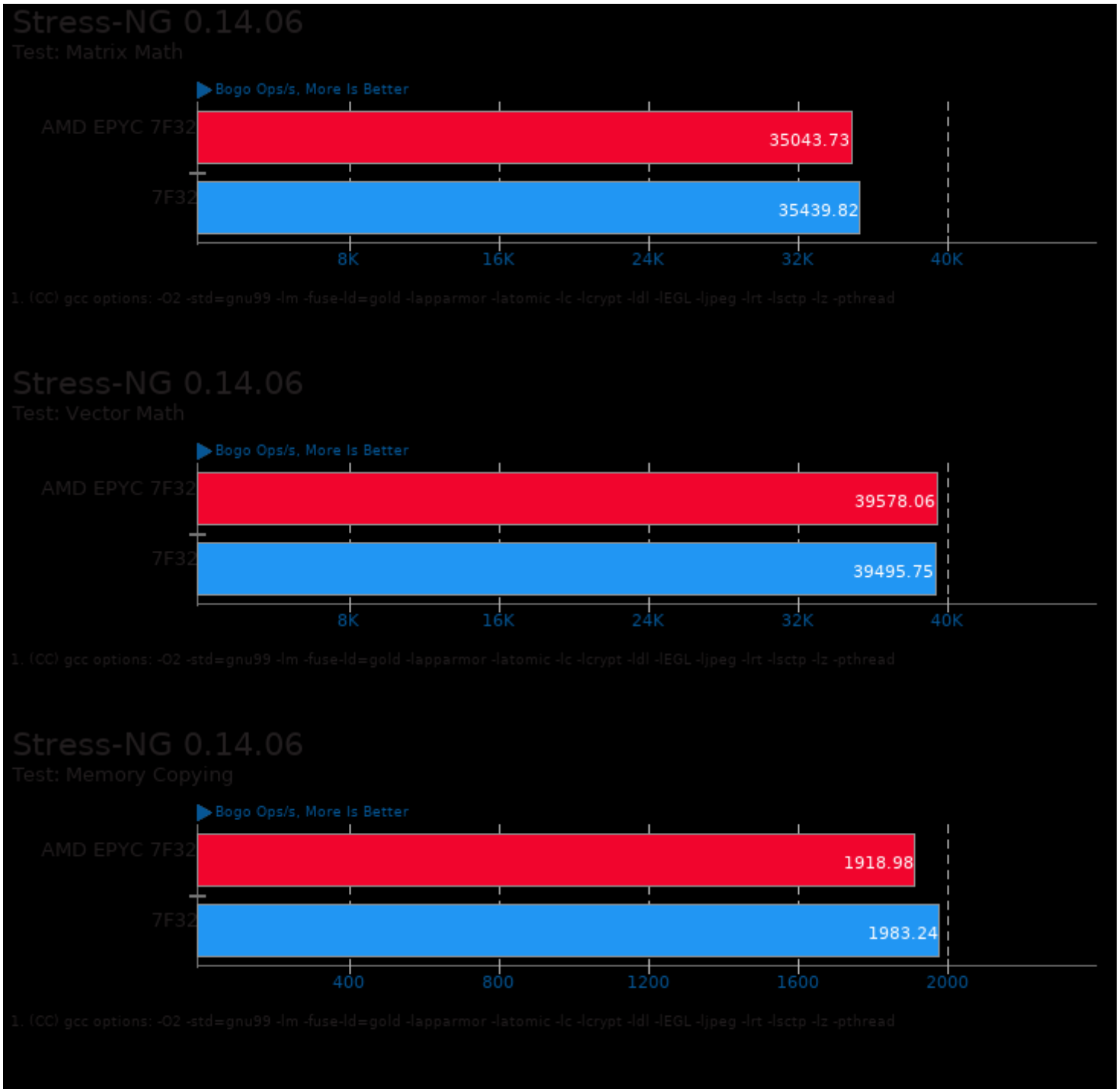

srsRAN 22.04.1
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM
UE Mb/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
53.5
53.6
53.6
12
24
36
48
60
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
Stress-NG 0.14.06
Test: MMAP
Bogo Ops/s, More Is Better
AMD EPYC 7F32
7F32
141.82
144.76
30
60
90
120
150
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: NUMA
Bogo Ops/s, More Is Better
AMD EPYC 7F32
7F32
236.71
236.87
50
100
150
200
250
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread

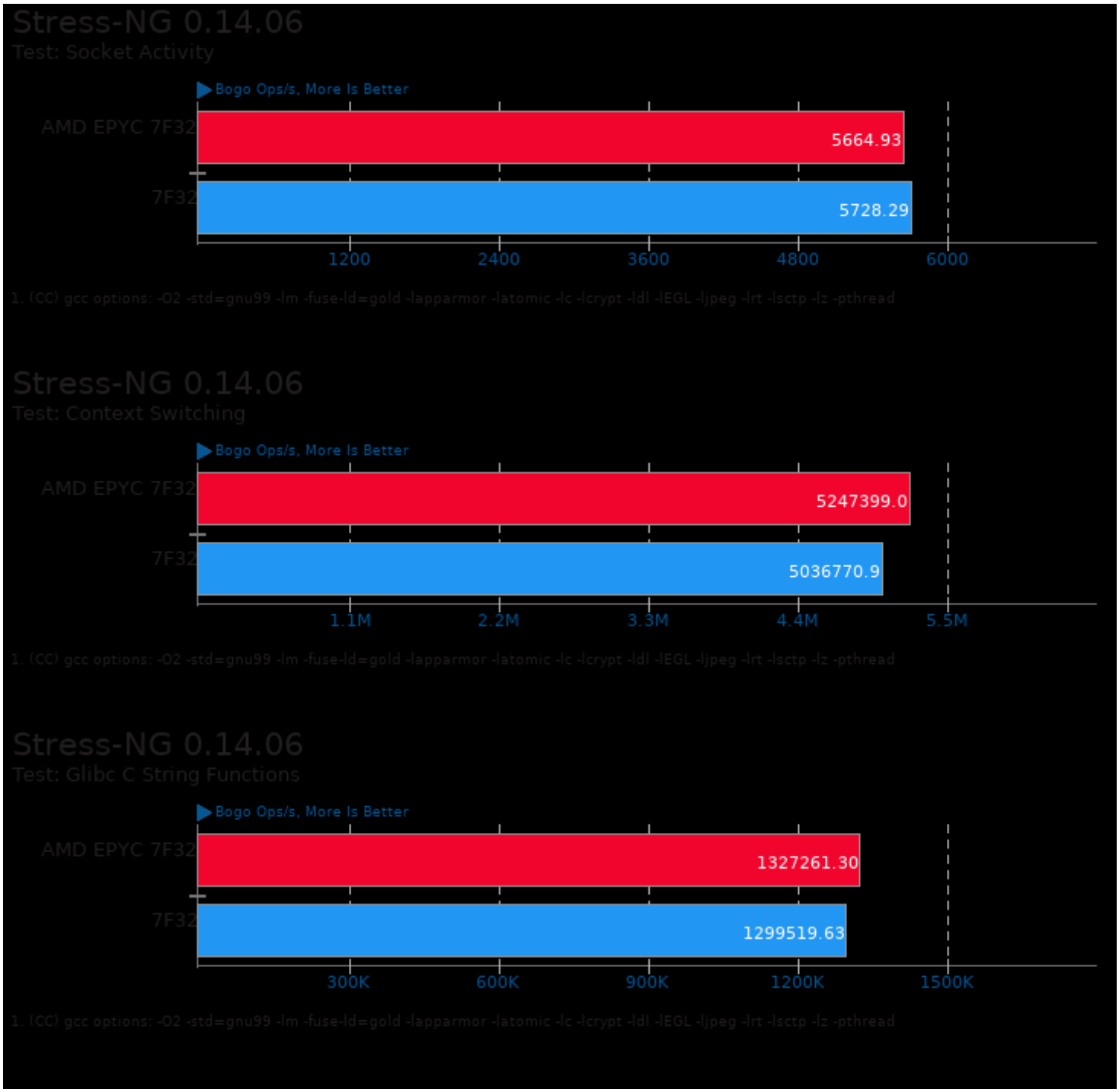

Stress-NG 0.14.06
Test: Futex
Bogo Ops/s, More Is Better
AMD EPYC 7F32
2310980.46
7F32
2404426.48
500K
1000K
1500K
2000K
2500K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: MEMFD
Bogo Ops/s, More Is Better
AMD EPYC 7F32
371.54
7F32
385.73
80
160
240
320
400
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Mutex
Bogo Ops/s, More Is Better
AMD EPYC 7F32
5679683.10
7F32
5617446.16
1.2M
2.4M
3.6M
4.8M
6M
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread


Stress-NG 0.14.06
Test: Atomic
Bogo Ops/s, More Is Better
AMD EPYC 7F32
392425.59
7F32
392155.78
80K
160K
240K
320K
400K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Crypto
Bogo Ops/s, More Is Better
AMD EPYC 7F32
13693.66
7F32
13609.36
3K
6K
9K
12K
15K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Malloc
Bogo Ops/s, More Is Better
AMD EPYC 7F32
8923251.96
7F32
8973004.75
2M
4M
6M
8M
10M
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread


Stress-NG 0.14.06
Test: Forking
Bogo Ops/s, More Is Better
AMD EPYC 7F32
22867.22
7F32
23802.41
5K
10K
15K
20K
25K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: IO_uring
Bogo Ops/s, More Is Better
AMD EPYC 7F32
4364.73
7F32
4451.96
1000
2000
3000
4000
5000
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: SENDFILE
Bogo Ops/s, More Is Better
AMD EPYC 7F32
150426.21
7F32
149917.15
30K
60K
90K
120K
150K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread

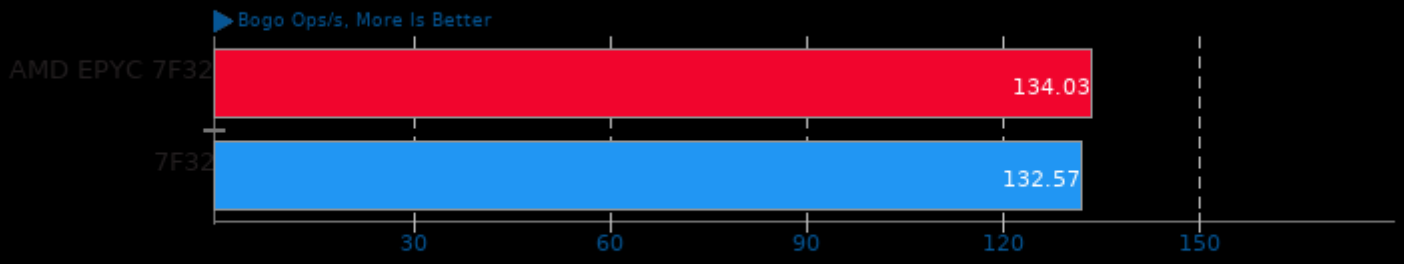

Stress-NG 0.14.06
Test: CPU Cache
Bogo Ops/s, More Is Better
AMD EPYC 7F32
85.33
7F32
96.63
20
40
60
80
100
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: CPU Stress
Bogo Ops/s, More Is Better
AMD EPYC 7F32
18122.93
7F32
18710.29
4K
8K
12K
16K
20K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Semaphores
Bogo Ops/s, More Is Better
AMD EPYC 7F32
1194194.95
7F32
1192572.08
300K
600K
900K
1200K
1500K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread


Stress-NG 0.14.06
Test: Matrix Math
Bogo Ops/s, More Is Better
AMD EPYC 7F32
35043.73
7F32
35439.82
8K
16K
24K
32K
40K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Vector Math
Bogo Ops/s, More Is Better
AMD EPYC 7F32
39578.06
7F32
39495.75
8K
16K
24K
32K
40K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Memory Copying
Bogo Ops/s, More Is Better
AMD EPYC 7F32
1918.98
7F32
1983.24
400
800
1200
1600
2000
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread


Stress-NG 0.14.06
Test: Socket Activity
Bogo Ops/s, More Is Better
AMD EPYC 7F32
5664.93
7F32
5728.29
1200
2400
3600
4800
6000
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Context Switching
Bogo Ops/s, More Is Better
AMD EPYC 7F32
5247399.0
7F32
5036770.9
1.1M
2.2M
3.3M
4.4M
5.5M
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread
Stress-NG 0.14.06
Test: Glibc C String Functions
Bogo Ops/s, More Is Better
AMD EPYC 7F32
1327261.30
7F32
1299519.63
300K
600K
900K
1200K
1500K
1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

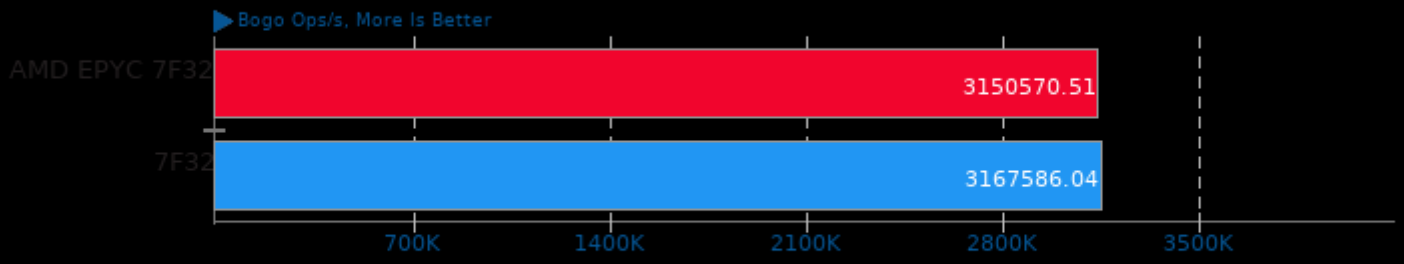
Test: Glibc Qsort Data Sorting



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread

Stress-NG 0.14.06

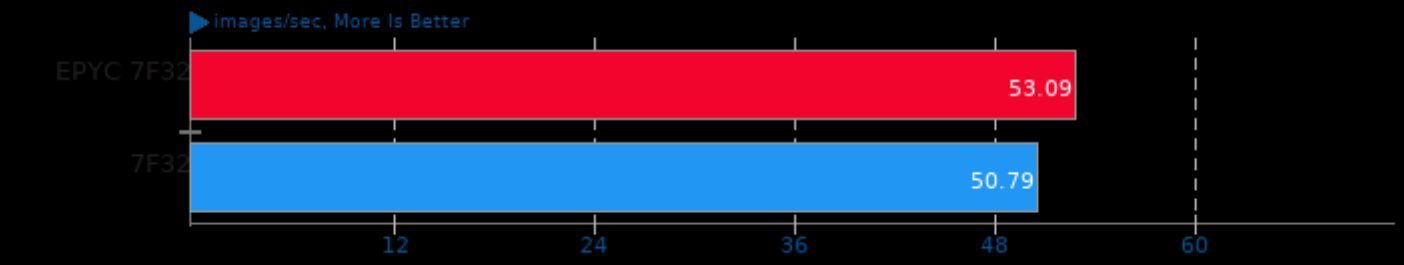
Test: System V Message Passing



1. (CC) gcc options: -O2 -std=gnu99 -lm -fuse-ld=gold -lapparmor -latomic -lc -lcrypt -ldl -lEGL -ljpeg -lrt -lsctp -lz -pthread

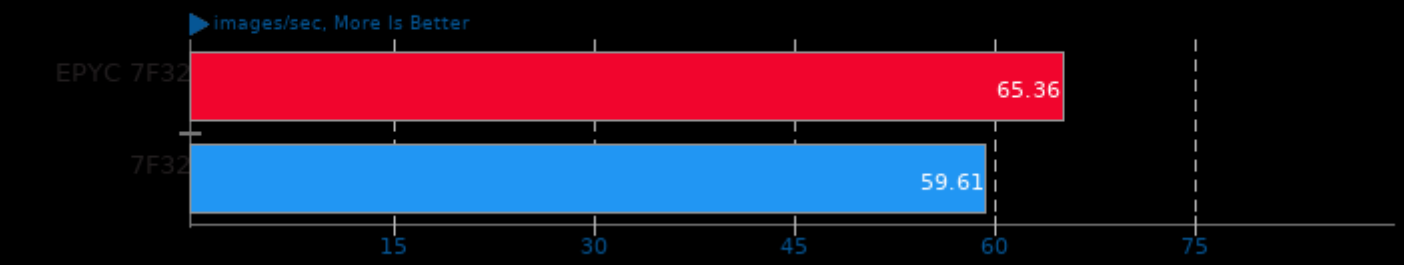
TensorFlow 2.10

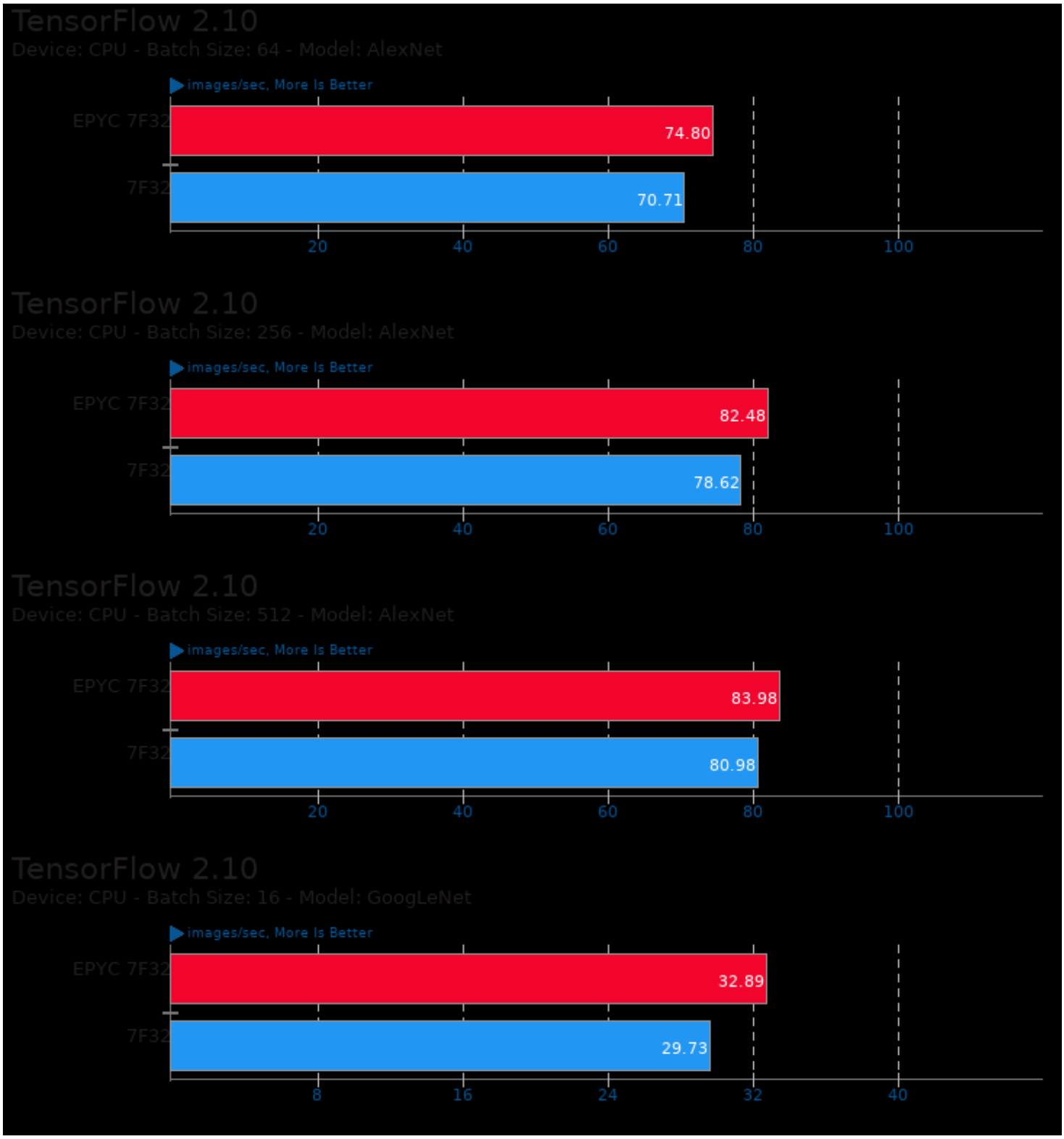
Device: CPU - Batch Size: 16 - Model: AlexNet

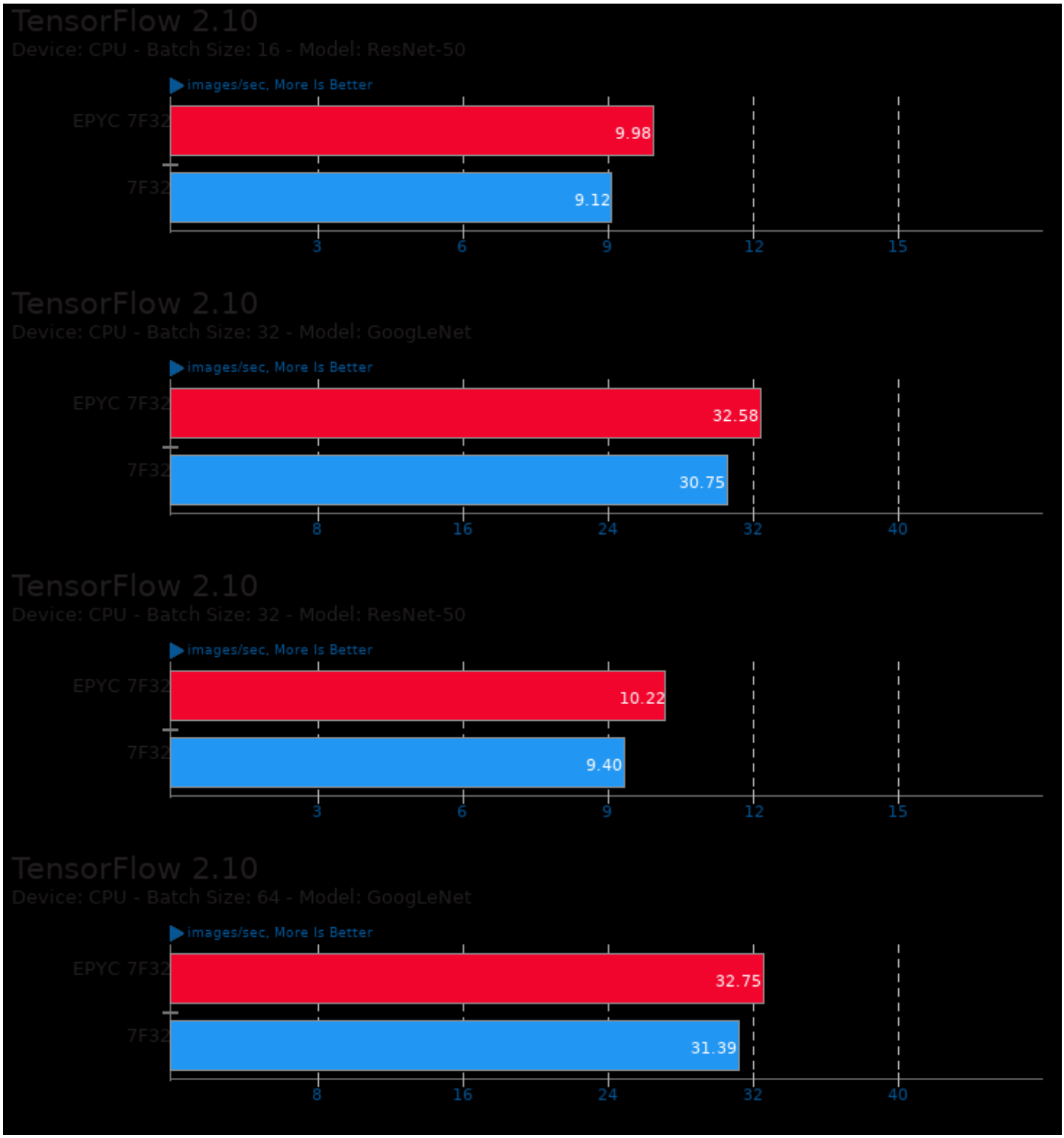


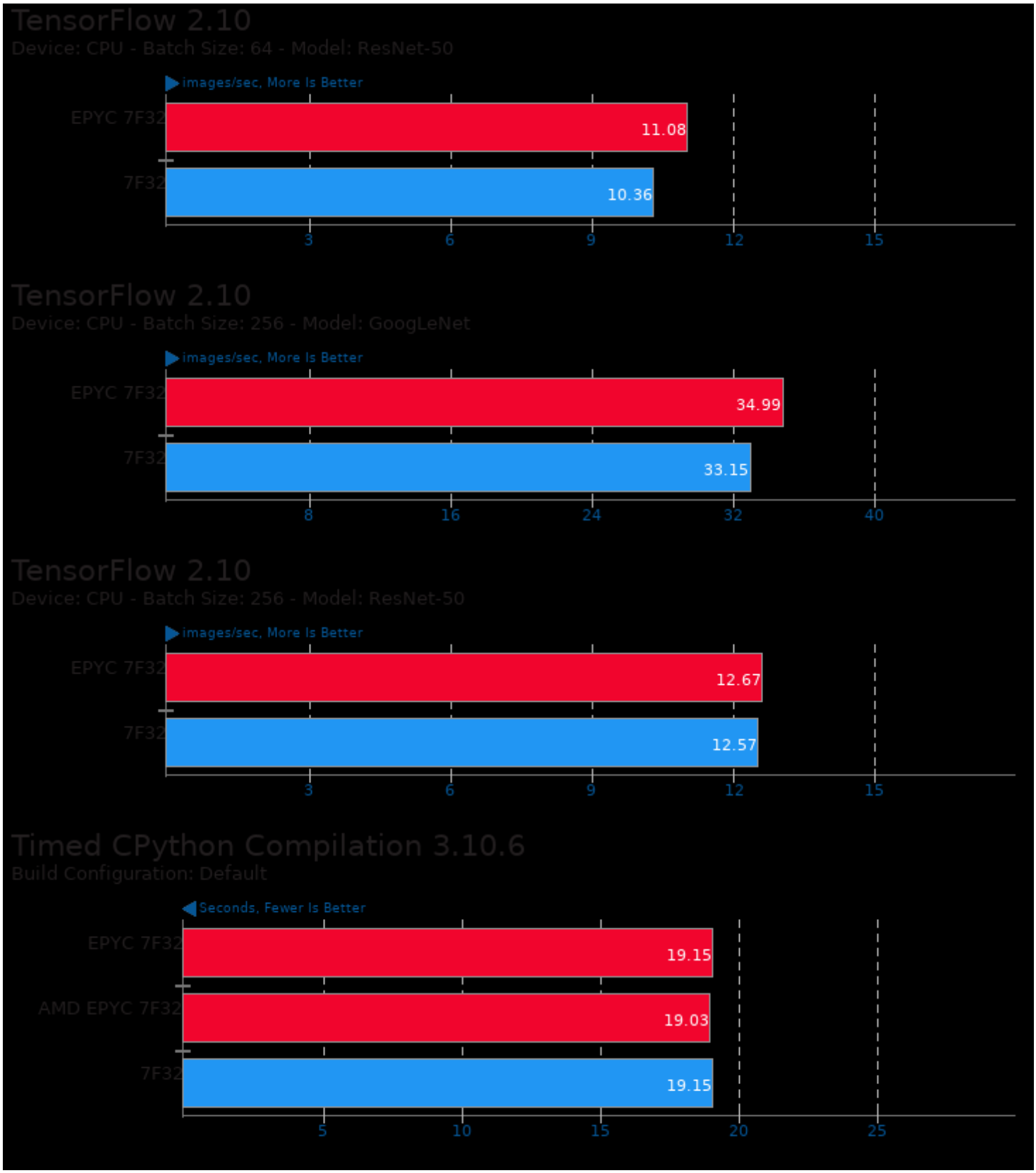
TensorFlow 2.10

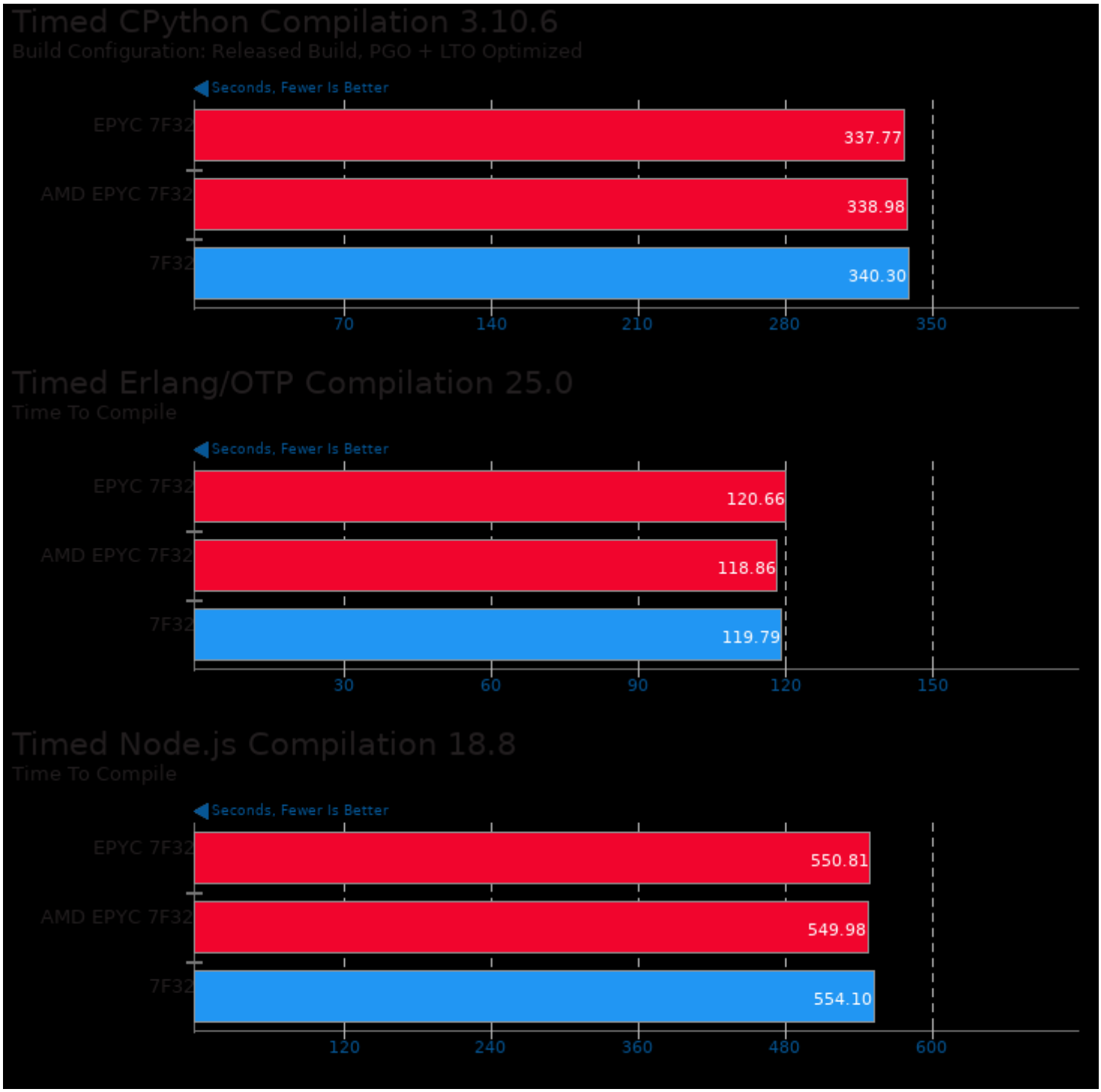
Device: CPU - Batch Size: 32 - Model: AlexNet



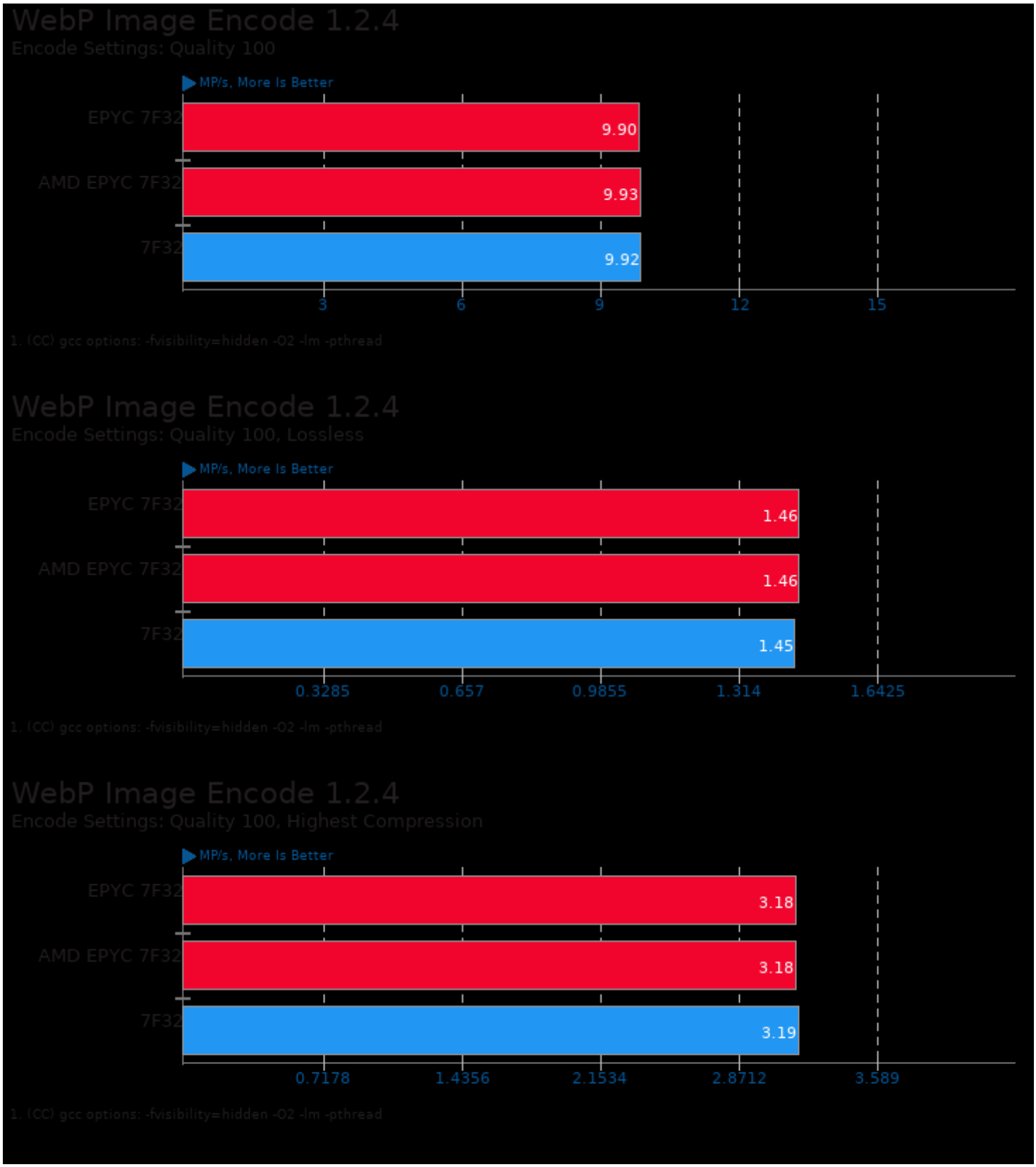

TensorFlow 2.10
Device: CPU - Batch Size: 64 - Model: AlexNet
images/sec, More Is Better
EPYC 7F32
74.80
7F32
70.71
20
40
60
80
100
TensorFlow 2.10
Device: CPU - Batch Size: 256 - Model: AlexNet
images/sec, More Is Better
EPYC 7F32
82.48
7F32
78.62
20
40
60
80
100
TensorFlow 2.10
Device: CPU - Batch Size: 512 - Model: AlexNet
images/sec, More Is Better
EPYC 7F32
83.98
7F32
80.98
20
40
60
80
100
TensorFlow 2.10
Device: CPU - Batch Size: 16 - Model: GoogLeNet
images/sec, More Is Better
EPYC 7F32
32.89
7F32
29.73
8
16
24
32
40


TensorFlow 2.10
Device: CPU - Batch Size: 16 - Model: ResNet-50
images/sec, More Is Better
EPYC 7F32
9.98
7F32
9.12
3
6
9
12
15
TensorFlow 2.10
Device: CPU - Batch Size: 32 - Model: GoogLeNet
images/sec, More Is Better
EPYC 7F32
32.58
7F32
30.75
8
16
24
32
40
TensorFlow 2.10
Device: CPU - Batch Size: 32 - Model: ResNet-50
images/sec, More Is Better
EPYC 7F32
10.22
7F32
9.40
3
6
9
12
15
TensorFlow 2.10
Device: CPU - Batch Size: 64 - Model: GoogLeNet
images/sec, More Is Better
EPYC 7F32
32.75
7F32
31.39
8
16
24
32
40


TensorFlow 2.10
Device: CPU - Batch Size: 64 - Model: ResNet-50
images/sec, More Is Better
EPYC 7F32
11.08
7F32
10.36
3
6
9
12
15
TensorFlow 2.10
Device: CPU - Batch Size: 256 - Model: GoogLeNet
images/sec, More Is Better
EPYC 7F32
34.99
7F32
33.15
8
16
24
32
40
TensorFlow 2.10
Device: CPU - Batch Size: 256 - Model: ResNet-50
images/sec, More Is Better
EPYC 7F32
12.67
7F32
12.57
3
6
9
12
15
Timed CPython Compilation 3.10.6
Build Configuration: Default
Seconds, Fewer Is Better
EPYC 7F32
19.15
AMD EPYC 7F32
19.03
7F32
19.15
5
10
15
20
25

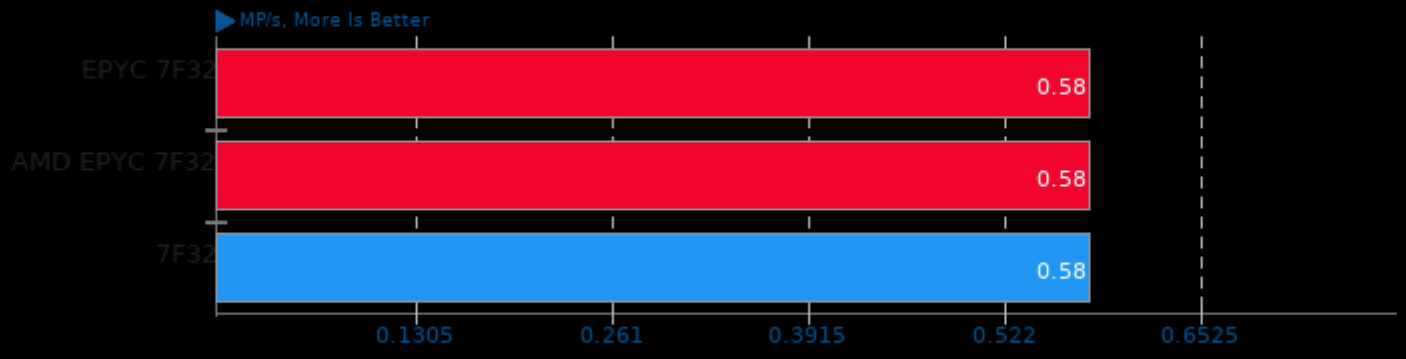

Timed CPython Compilation 3.10.6
Build Configuration: Released Build, PGO + LTO Optimized
Seconds, Fewer Is Better
EPYC 7F32
337.77
AMD EPYC 7F32
338.98
7F32
340.30
70
140
210
280
350
Timed Erlang/OTP Compilation 25.0
Time To Compile
Seconds, Fewer Is Better
EPYC 7F32
120.66
AMD EPYC 7F32
118.86
7F32
119.79
30
60
90
120
150
Timed Node.js Compilation 18.8
Time To Compile
Seconds, Fewer Is Better
EPYC 7F32
550.81
AMD EPYC 7F32
549.98
7F32
554.10
120
240
360
480
600


Timed PHP Compilation 8.1.9
Time To Compile
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
65.04
65.20
65.10
15
30
45
60
75
Unpacking The Linux Kernel 5.19
linux-5.19.tar.xz
Seconds, Fewer Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
7.832
7.814
7.896
2
4
6
8
10
WebP Image Encode 1.2.4
Encode Settings: Default
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
15.80
15.83
15.81
4
8
12
16
20
1. (CC) gcc options: -fvisibility=hidden -O2 -lm -pthread


WebP Image Encode 1.2.4
Encode Settings: Quality 100
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
9.90
9.93
9.92
3
6
9
12
15
1. (CC) gcc options: -fvisibility=hidden -O2 -lm -pthread
WebP Image Encode 1.2.4
Encode Settings: Quality 100, Lossless
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
1.46
1.46
1.45
0.3285
0.657
0.9855
1.314
1.6425
1. (CC) gcc options: -fvisibility=hidden -O2 -lm -pthread
WebP Image Encode 1.2.4
Encode Settings: Quality 100, Highest Compression
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
3.18
3.18
3.19
0.7178
1.4356
2.1534
2.8712
3.589
1. (CC) gcc options: -fvisibility=hidden -O2 -lm -pthread

WebP Image Encode 1.2.4

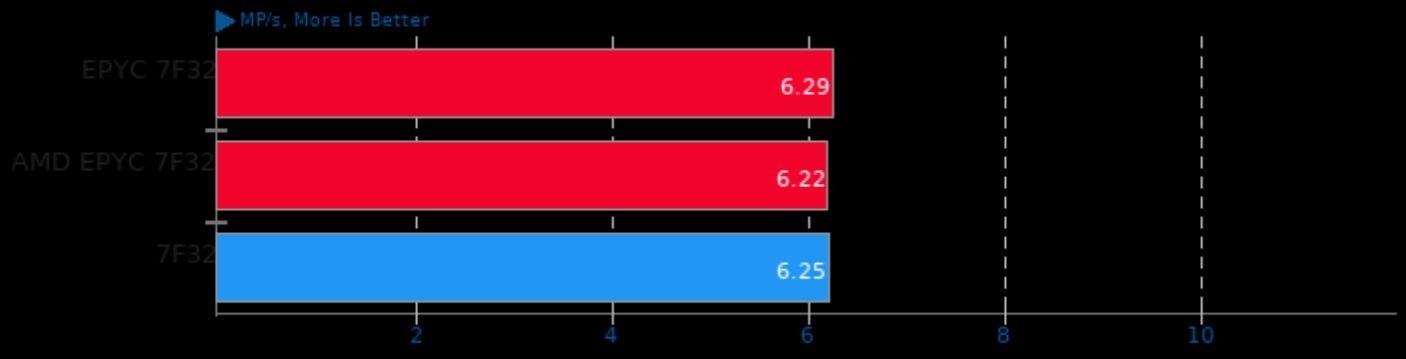
Encode Settings: Quality 100, Lossless, Highest Compression



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

WebP2 Image Encode 20220823

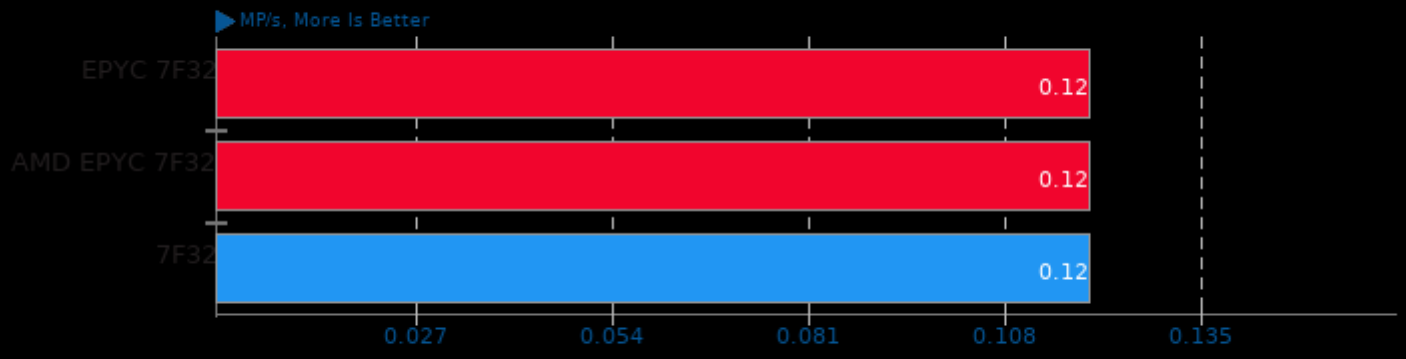
Encode Settings: Default



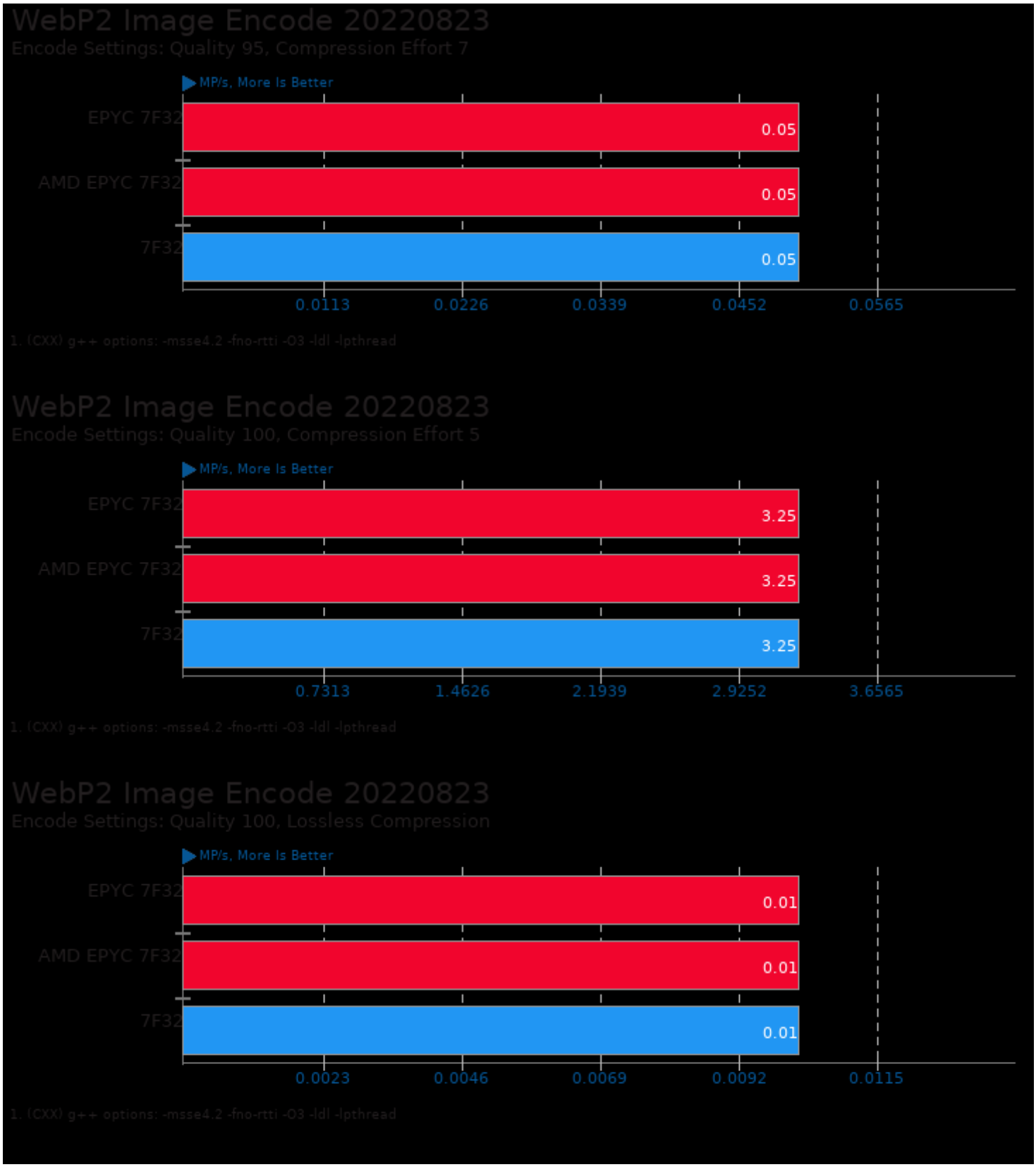
1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl -lpthread

WebP2 Image Encode 20220823

Encode Settings: Quality 75, Compression Effort 7

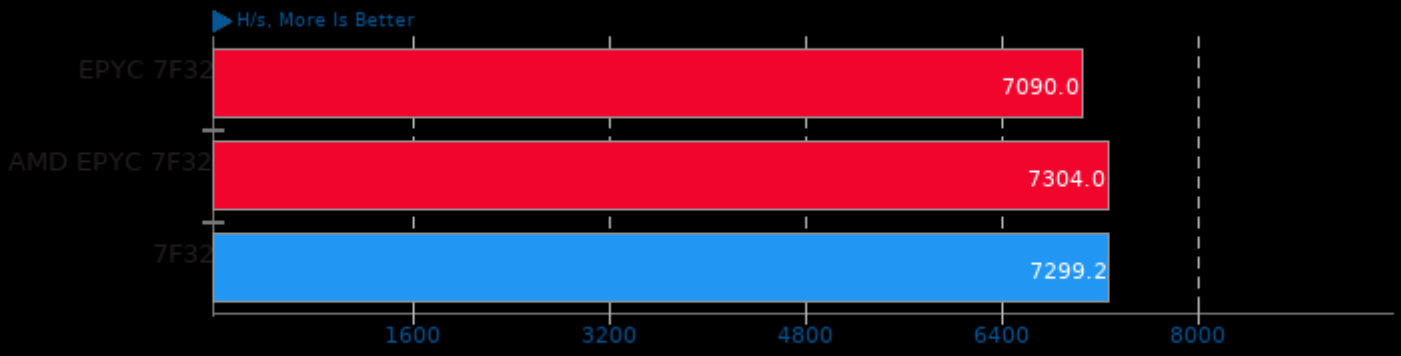


1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl -lpthread


WebP2 Image Encode 20220823
Encode Settings: Quality 95, Compression Effort 7
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
0.05
0.05
0.05
0.0113
0.0226
0.0339
0.0452
0.0565
1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl -lpthread
WebP2 Image Encode 20220823
Encode Settings: Quality 100, Compression Effort 5
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
3.25
3.25
3.25
0.7313
1.4626
2.1939
2.9252
3.6565
1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl -lpthread
WebP2 Image Encode 20220823
Encode Settings: Quality 100, Lossless Compression
MP/s, More Is Better
EPYC 7F32
AMD EPYC 7F32
7F32
0.01
0.01
0.01
0.0023
0.0046
0.0069
0.0092
0.0115
1. (CXX) g++ options: -msse4.2 -fno-rtti -O3 -ldl -lpthread

Xmrig 6.18.1

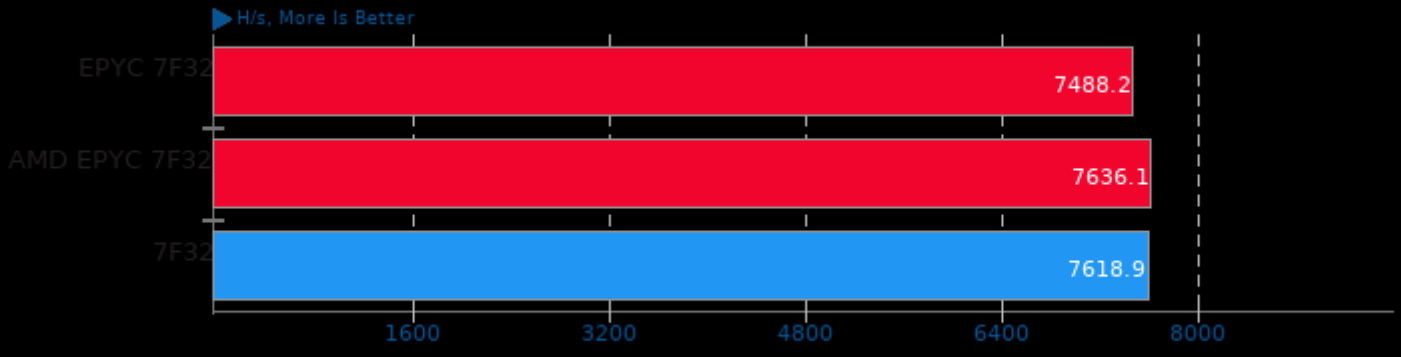
Variant: Monero - Hash Count: 1M



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

Xmrig 6.18.1

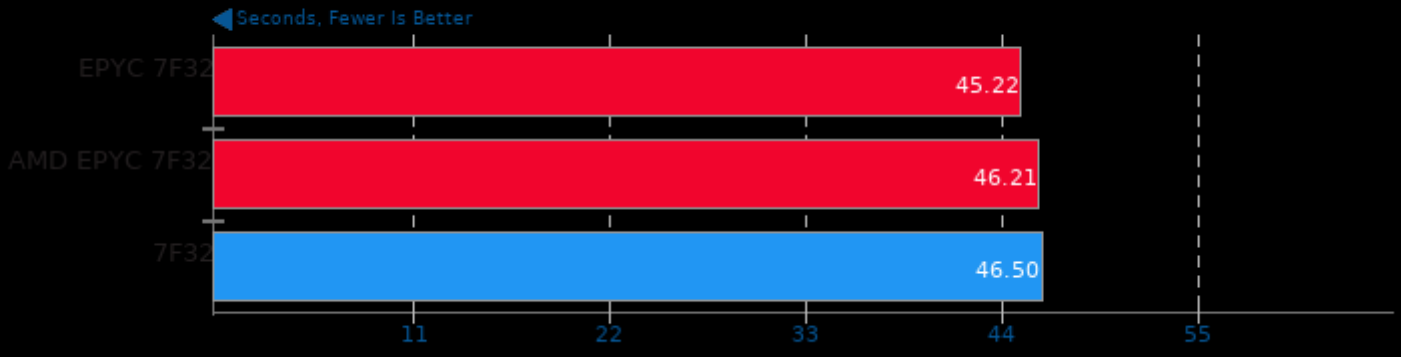
Variant: Wownero - Hash Count: 1M



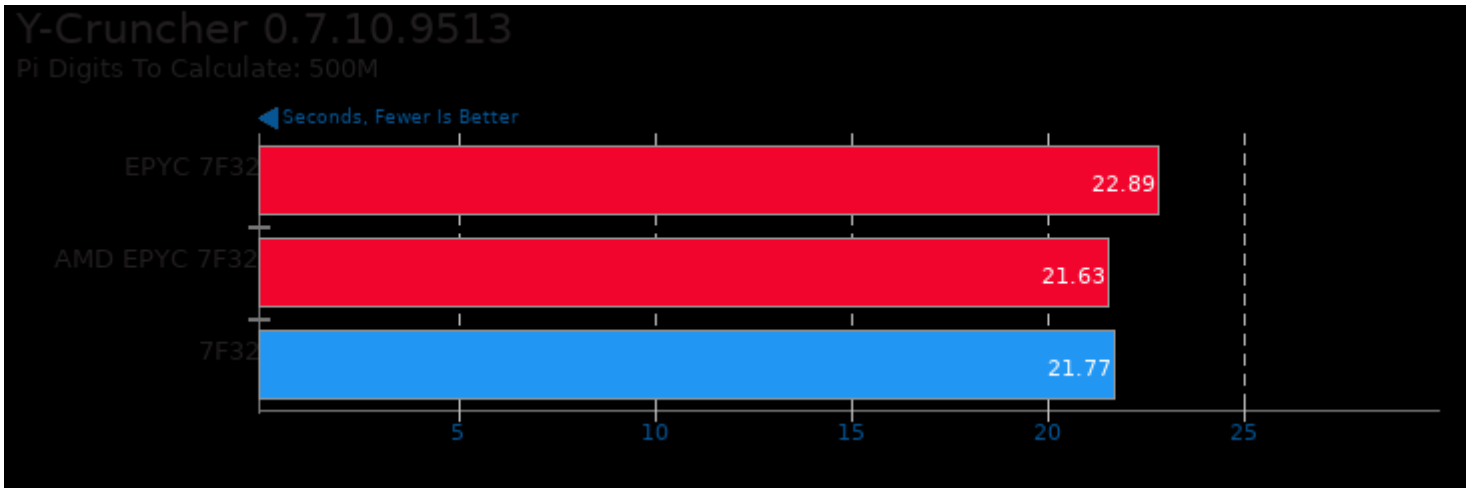
1. (CXX) g++ options: -fexceptions -fno-rtti -maes -O3 -Ofast -static-libgcc -static-libstdc++ -rdynamic -lssl -lcrypto -luv -lpthread -lrt -ldl -lhwloc

Y-Cruncher 0.7.10.9513

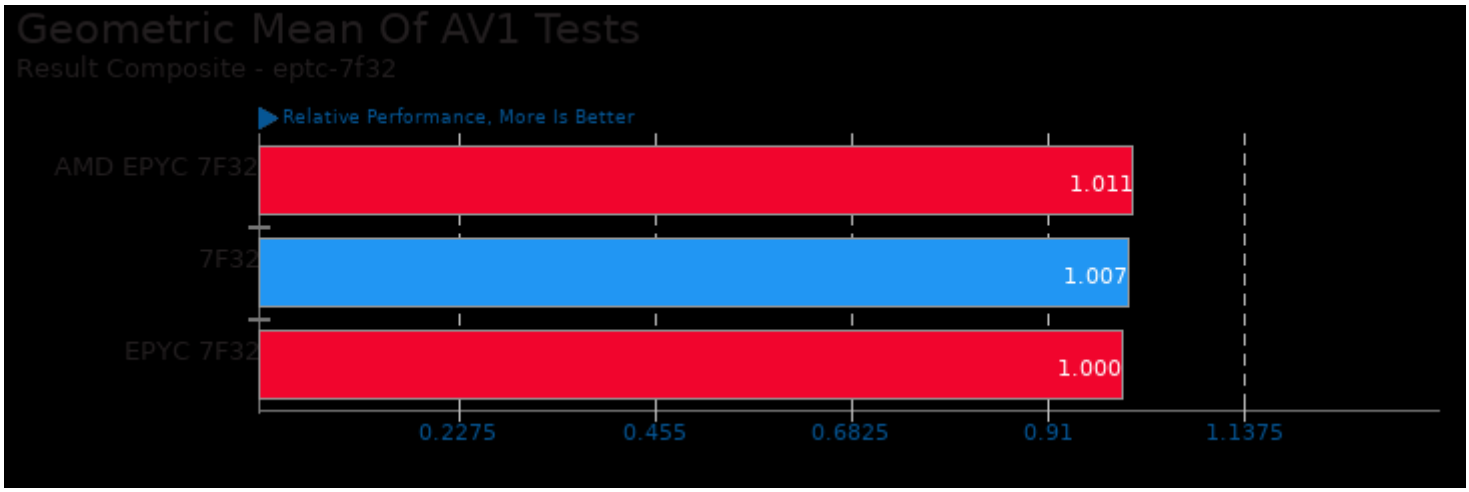
Pi Digits To Calculate: 1B



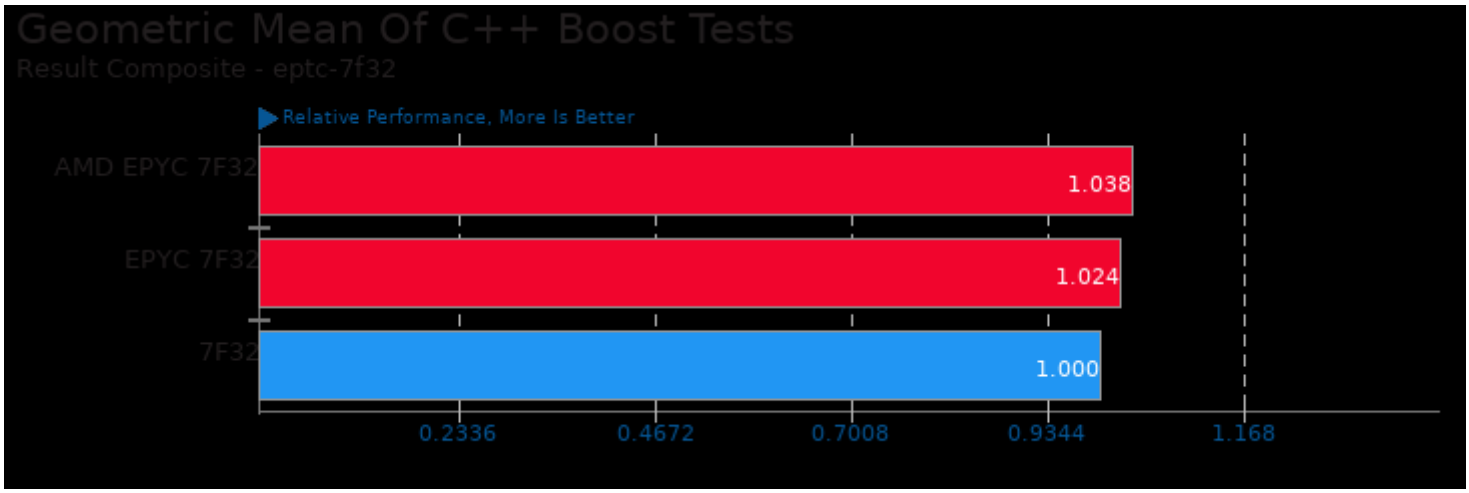
eptc-7f32


Y-Cruncher 0.7.10.9513
Pi Digits To Calculate: 500M
Seconds, Fewer Is Better
EPYC 7F32
22.89
AMD EPYC 7F32
21.63
7F32
21.77
5
10
15
20
25

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



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



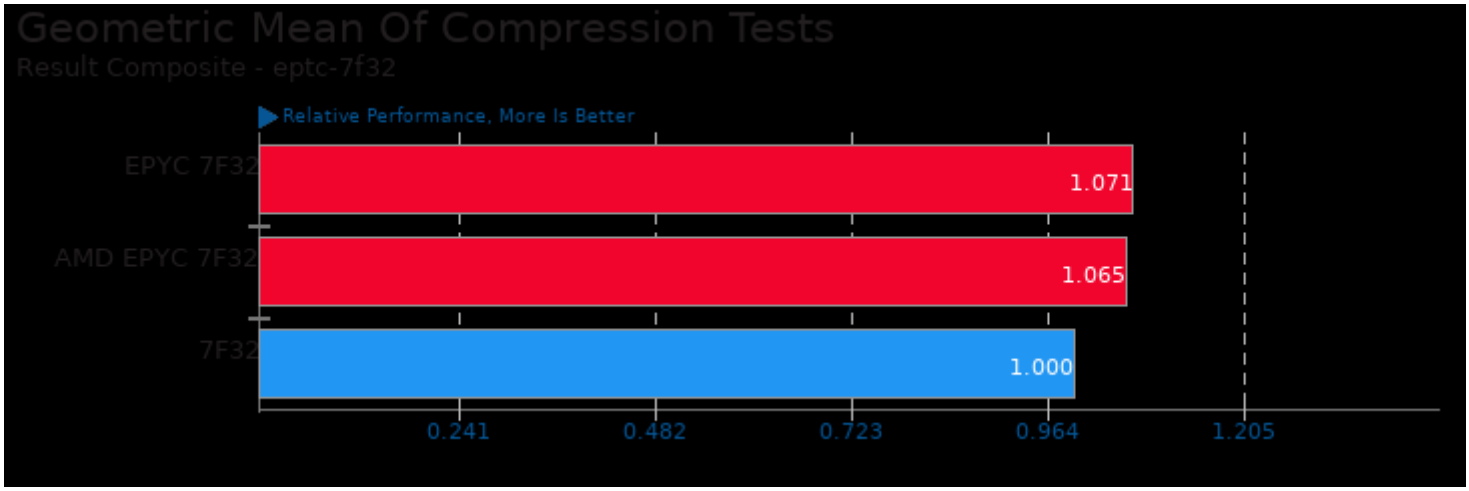
Geometric mean based upon tests: pts/openfoam and pts/srsran



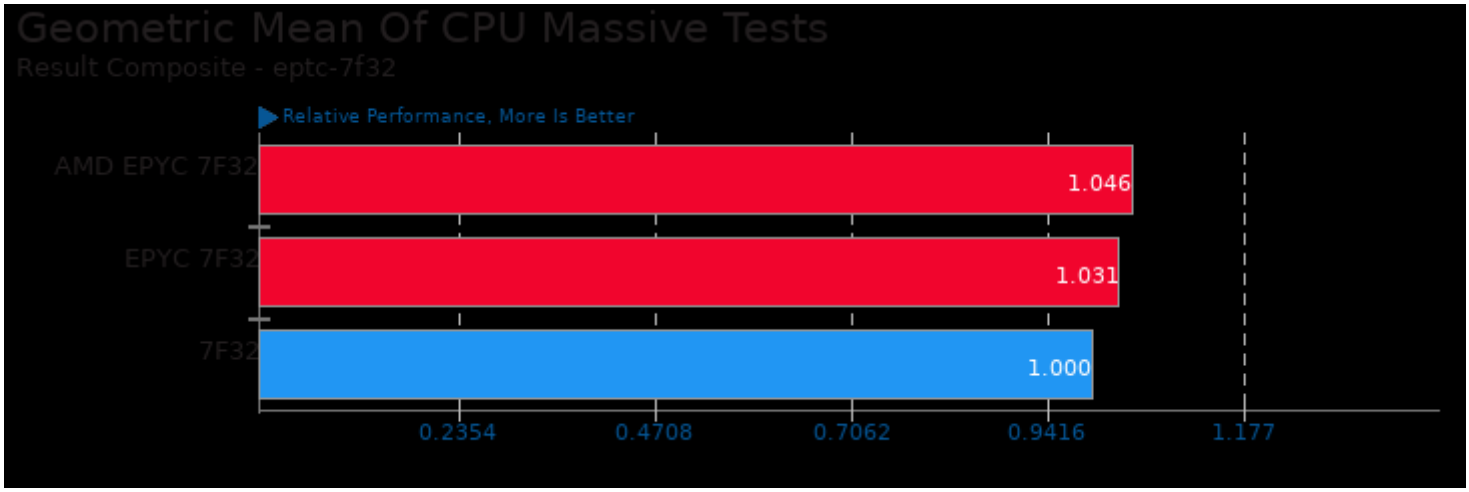
Geometric mean based upon tests: pts/build-php, pts/build-python, pts/build-erlang and pts/build-nodejs



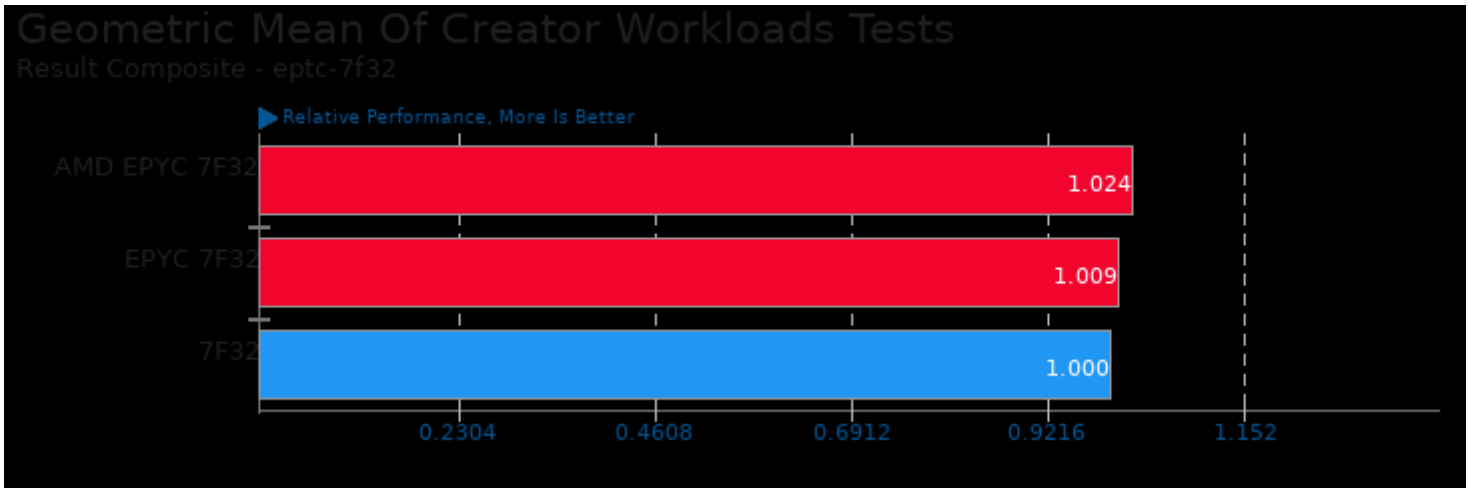
Geometric mean based upon tests: pts/graphics-magick, pts/build-php, pts/compress-7zip, pts/encode-flac, pts/nginx, pts/aom-av1 and pts/smhasher



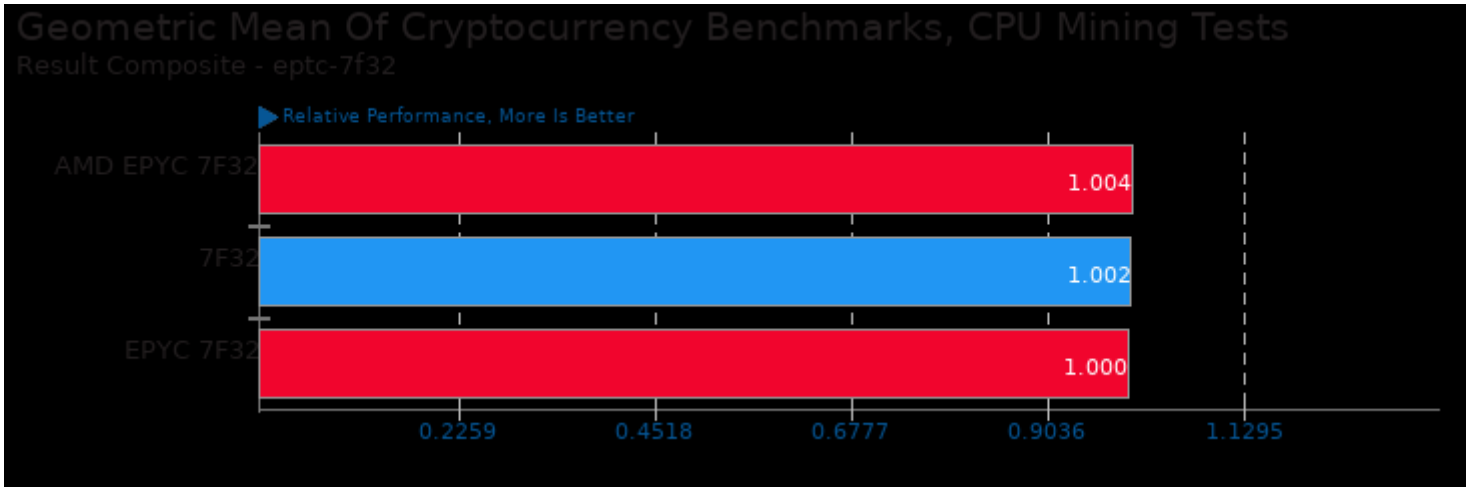
Geometric mean based upon tests: pts/compress-7zip and pts/blosc



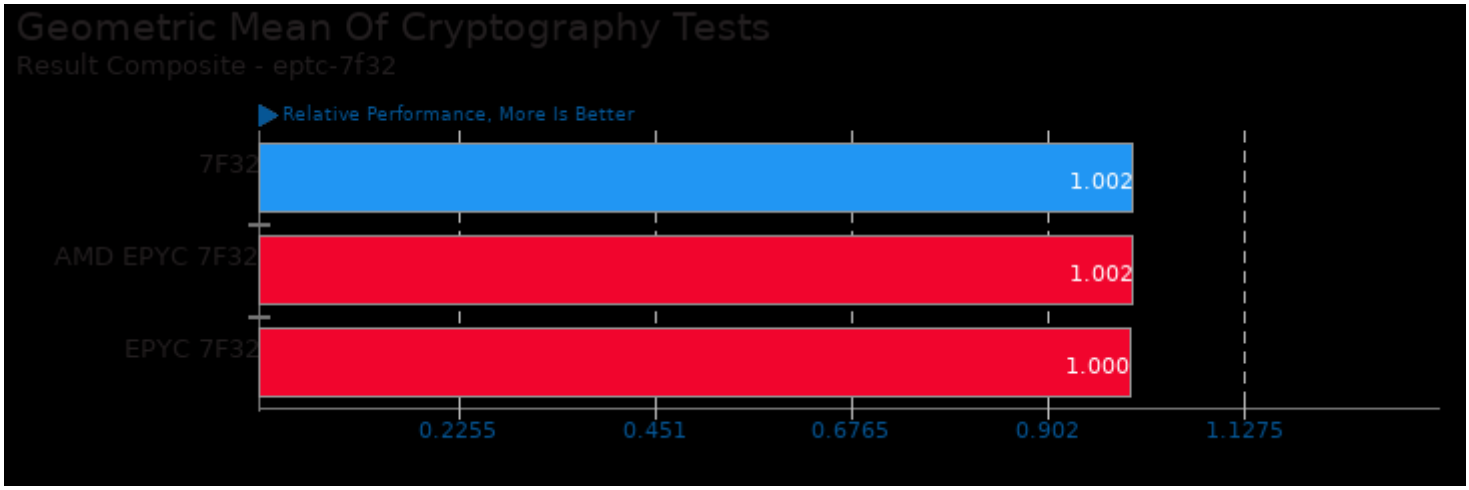
Geometric mean based upon tests: pts/brl-cad, pts/build-php, pts/compress-7zip, pts/encode-flac, pts/graphics-magick, pts/onednn, pts/nginx, pts/scikit-learn, pts/stress-ng, pts/tensorflow, pts/blender and pts/cpuminer-opt



Geometric mean based upon tests: pts/blender, pts/natron, pts/ffmpeg, pts/aom-av1, pts/avifenc, pts/encode-flac, pts/graphics-magick, pts/webp, pts/webp2, pts/jpegxl, pts/jpegxl-decode, pts/onednn, pts/openvino and pts/brl-cad



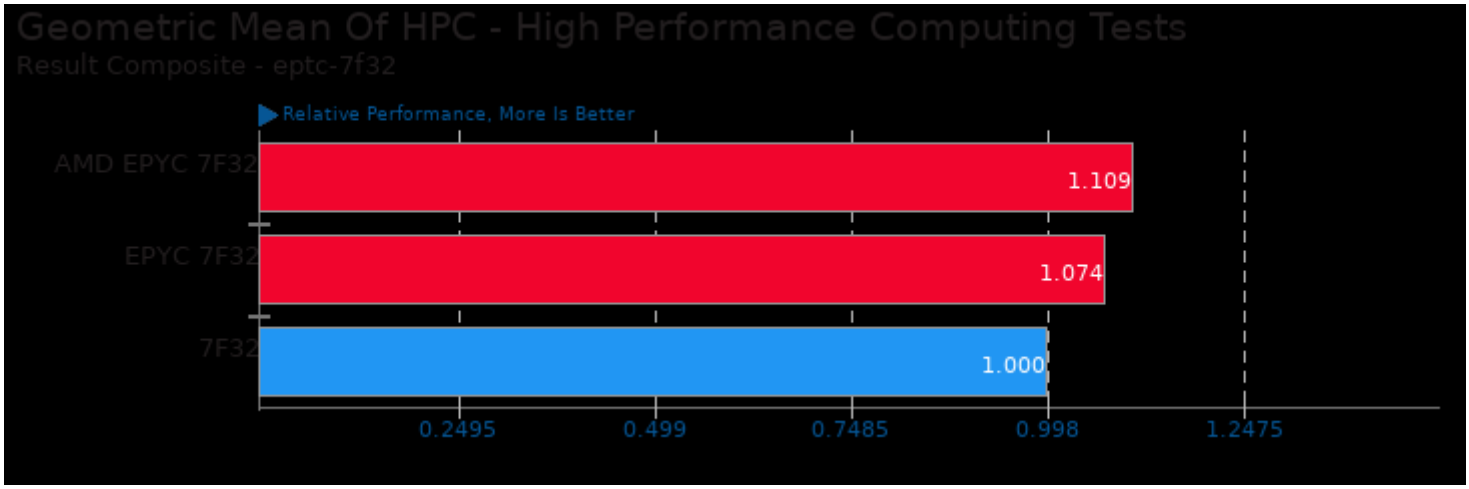
Geometric mean based upon tests: pts/cpuminer-opt and pts/xmrig



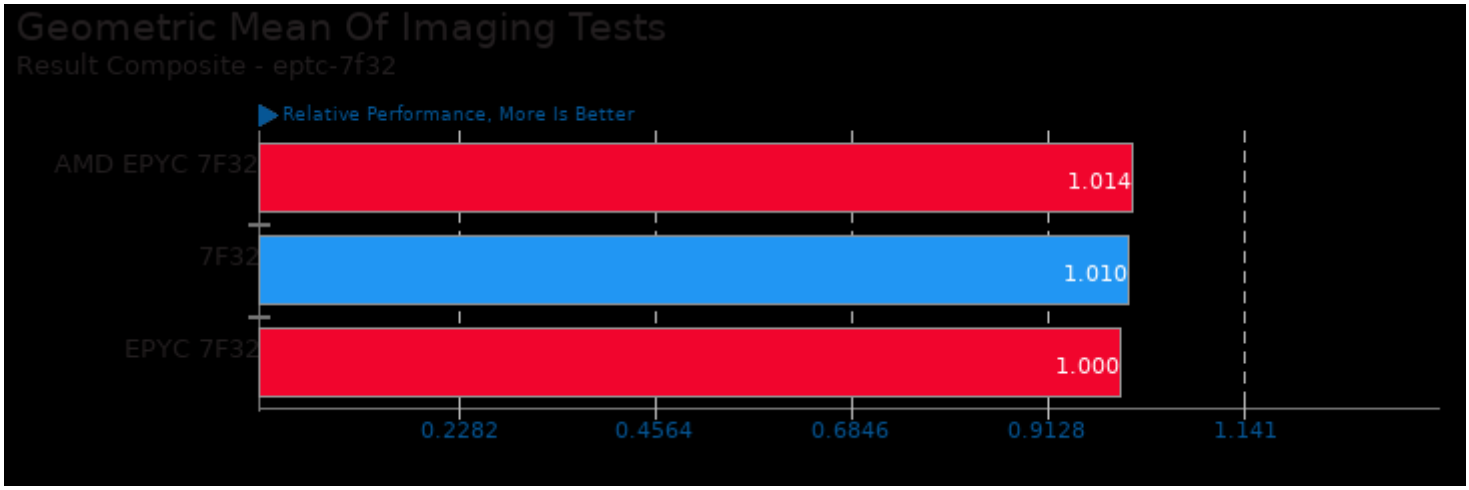
Geometric mean based upon tests: pts/smhasher, pts/cpuminer-opt and pts/xmrig



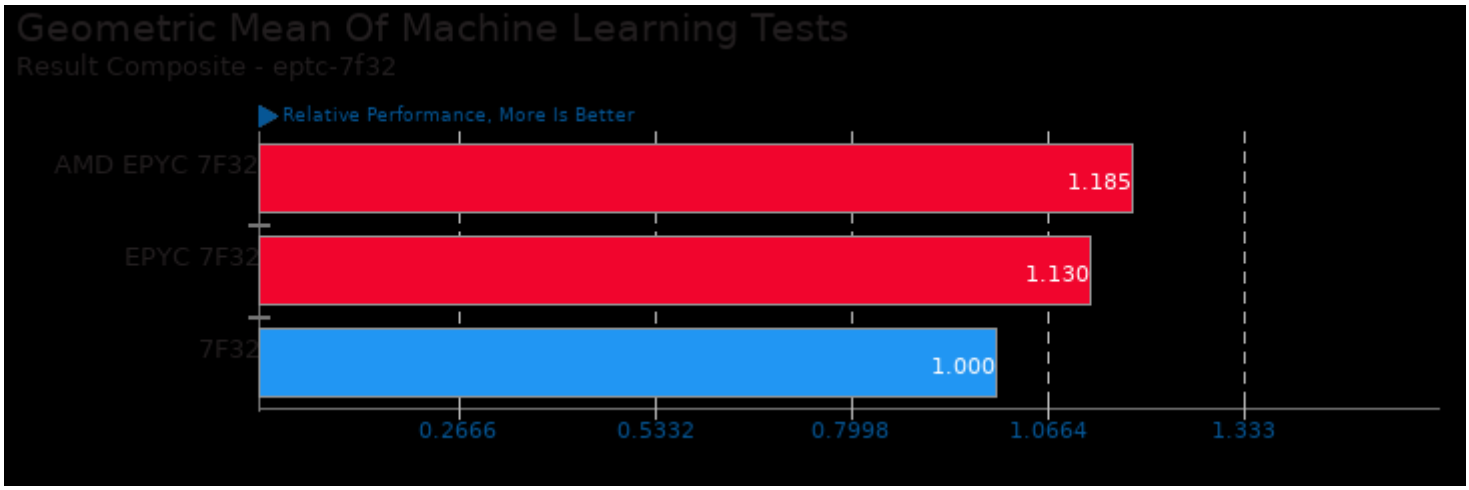
Geometric mean based upon tests: pts/encode-flac, pts/ffmpeg, pts/aom-av1 and pts/avifenc



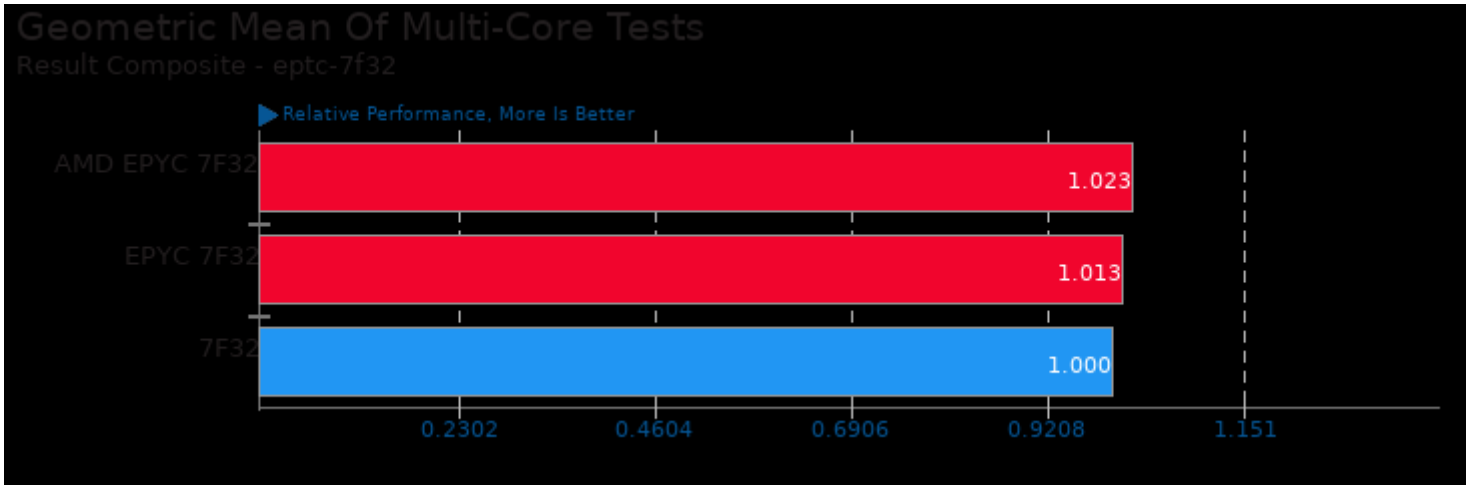
Geometric mean based upon tests: pts/openfoam, pts/mnn, pts/scikit-learn, pts/tensorflow, pts/onednn, pts/openvino, pts/spacy, pts/deepsparse, pts/openradioss, pts/nekrs and pts/minibude



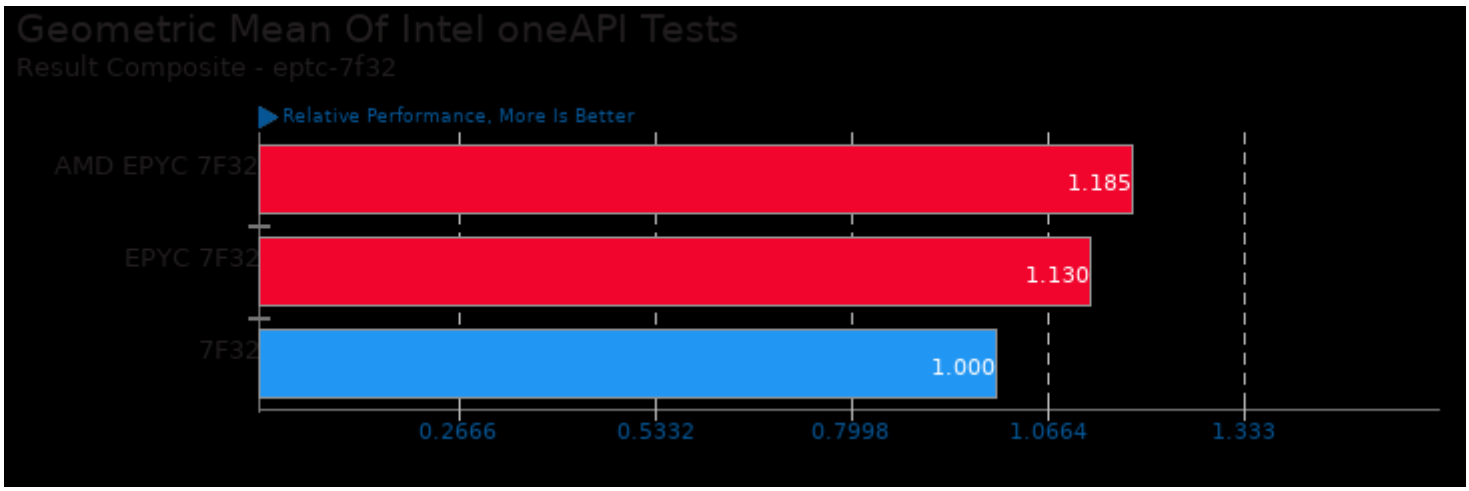
Geometric mean based upon tests: pts/graphics-magick, pts/webp, pts/webp2, pts/jpegxl, pts/jpegxl-decode and pts/avifenc



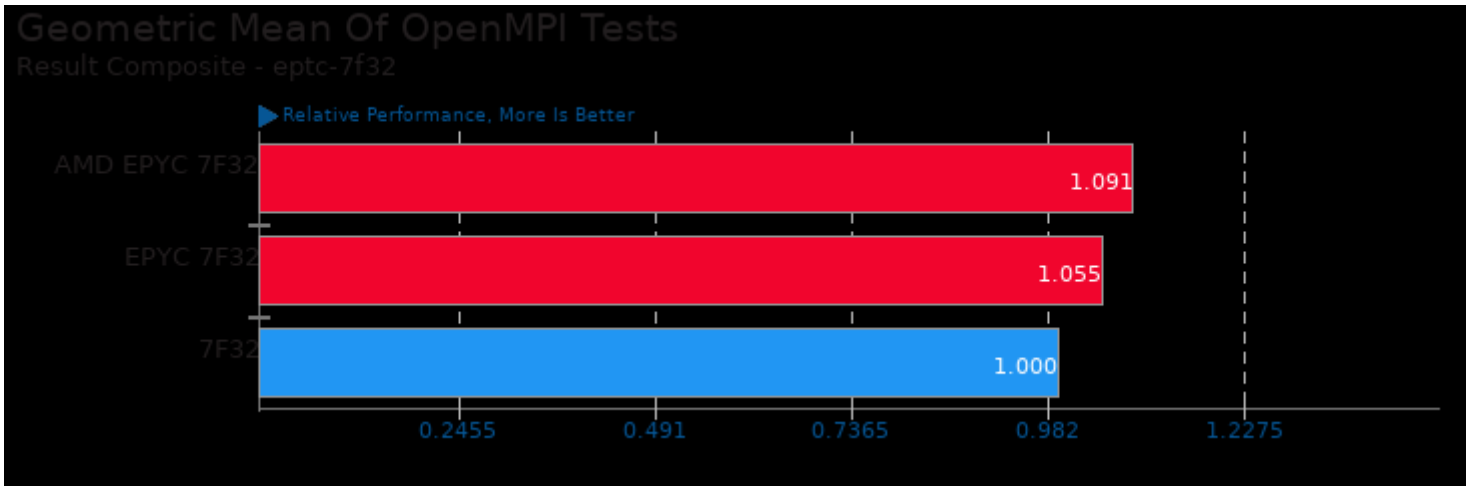
Geometric mean based upon tests: pts/mnn, pts/scikit-learn, pts/tensorflow, pts/onednn, pts/openvino, pts/spacy and pts/deepsparse



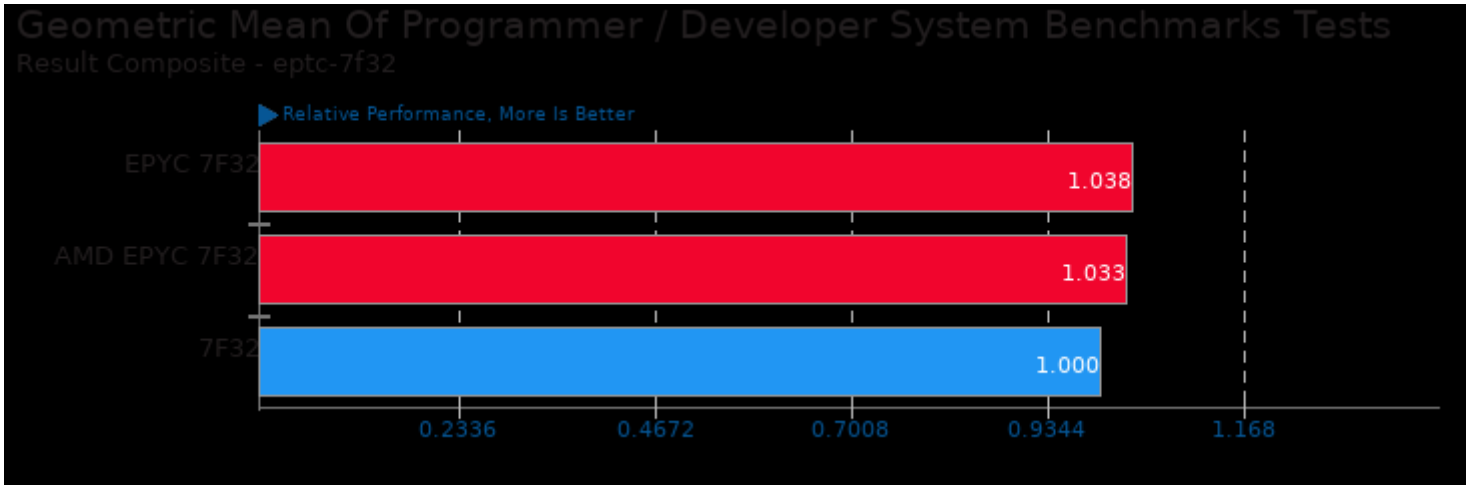
Geometric mean based upon tests: pts/blender, pts/cpuminer-opt, pts/ffmpeg, pts/aom-av1, pts/avifenc, pts/graphics-magick, pts/onednn, pts/compress-7zip, pts/build-php, pts/build-python, pts/build-erlang, pts/build-nodejs, pts/natron and pts/openvino



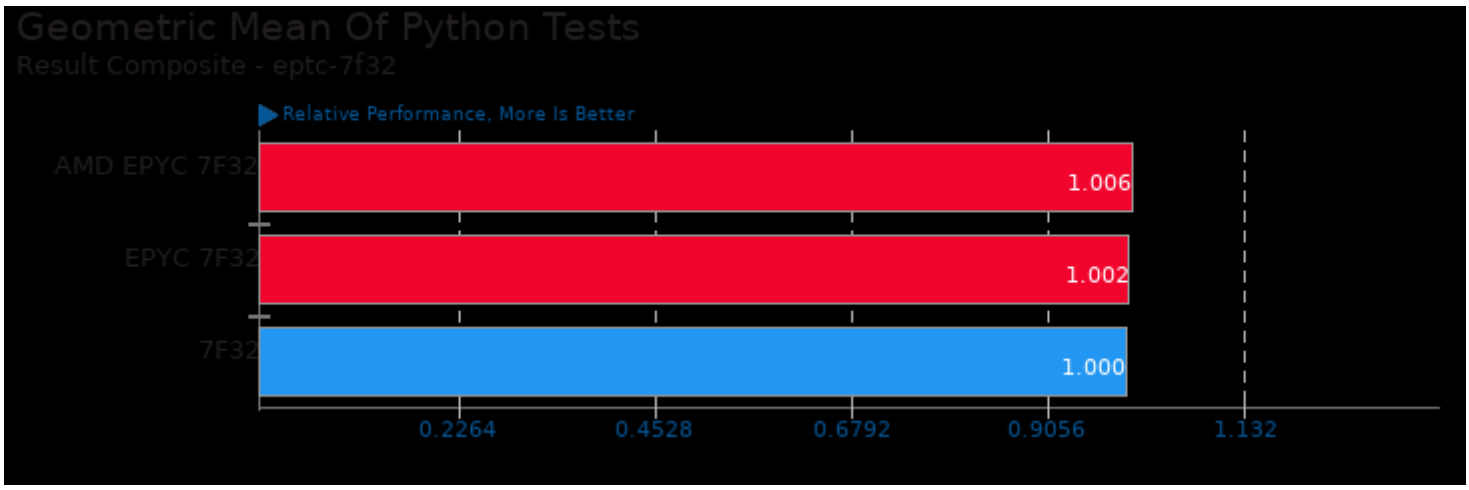
Geometric mean based upon tests: pts/onednn and pts/openvino



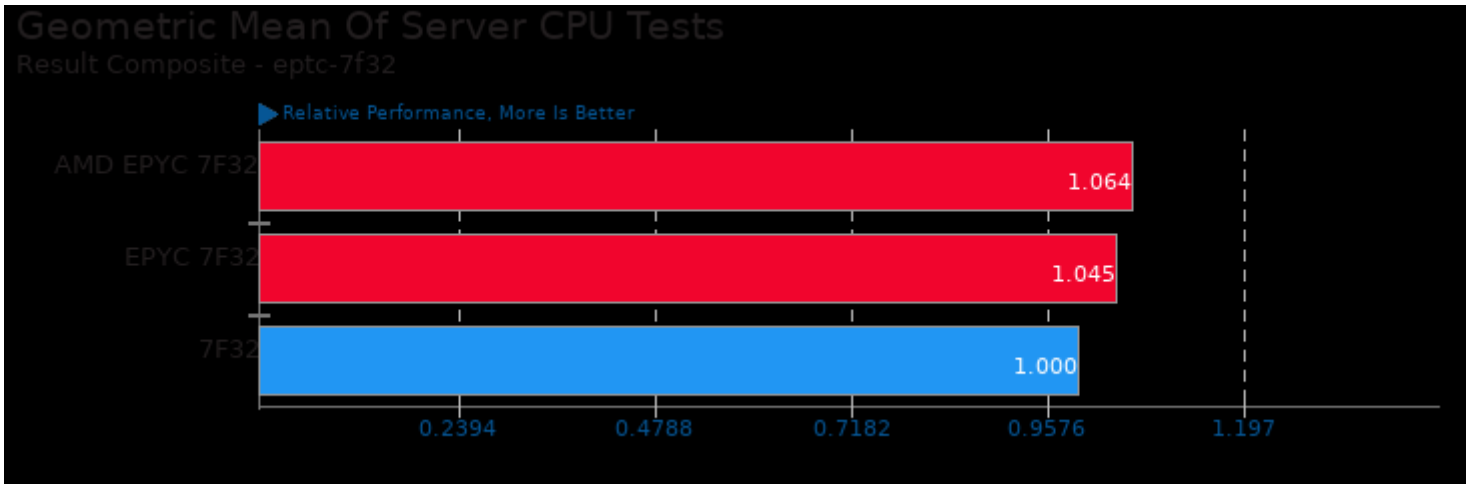
Geometric mean based upon tests: pts/nekrs, pts/openfoam and pts/openradioss



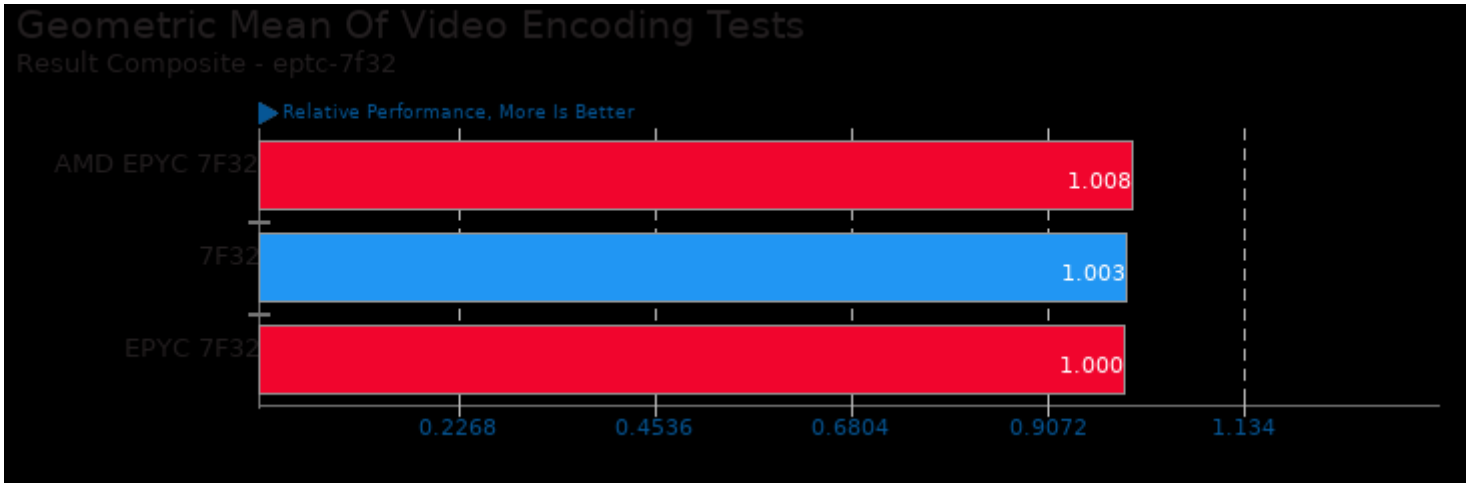
Geometric mean based upon tests: pts/blosc, pts/build-php, pts/build-python, pts/build-erlang and pts/build-nodejs



Geometric mean based upon tests: pts/encodec, pts/ffmpeg, pts/deepsparse, pts/openvino, pts/scikit-learn, pts/spacy, pts/tensorflow and pts/build-nodejs



Geometric mean based upon tests: pts/onednn, pts/compress-7zip, pts/build-php, pts/stress-ng, pts/blender, pts/scikit-learn and pts/cpuminer-opt



Geometric mean based upon tests: pts/ffmpeg, pts/aom-av1 and pts/avifenc

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 18:16.