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3900xt-september

AMD Ryzen 9 3900XT 12-Core testing with a MSI MEG X570 GODLIKE (MS-7C34) v1.0 (1.B3 BIOS) and AMD Radeon RX 56/64 8GB on Ubuntu 22.04 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 47% of the tests.

Based on the geometric mean of all complete results, the fastest (A) was 1.066x the speed of the slowest (AA). B was 0.989x the speed of A, C was 0.989x the speed of B, AA was 0.96x the speed of C.

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

NCNN (Target: CPU - Model: googlenet) at 2.192x
etcd (Test: PUT - Connections: 100 - Clients: 100) at 1.925x
etcd (Test: PUT - Connections: 100 - Clients: 100 - Average Latency) at 1.923x
Redis (Test: LPOP - Parallel Connections: 50) at 1.708x
Redis (Test: LPOP - Parallel Connections: 500) at 1.678x
etcd (Test: PUT - Connections: 50 - Clients: 100) at 1.669x
etcd (Test: PUT - Connections: 50 - Clients: 100 - Average Latency) at 1.615x
Unvanquished (Resolution: 1920 x 1200 - Effects Quality: Ultra) at 1.373x
Unvanquished (Resolution: 1920 x 1080 - Effects Quality: High) at 1.346x

Unvanquished (Resolution: 1920 x 1200 - Effects Quality: Medium) at 1.32x.

Test Systems:

A

AA

B

C

Processor: AMD Ryzen 9 3900XT 12-Core @ 3.80GHz (12 Cores / 24 Threads), Motherboard: MSI MEG X570 GODLIKE (MS-7C34) v1.0 (1.B3 BIOS), Chipset: AMD Starship/Matisse, Memory: 16GB, Disk: 500GB Seagate FireCuda 520 SSD ZP500GM30002, Graphics: AMD Radeon RX 56/64 8GB (1630/945MHz), Audio: AMD Vega 10 HDMI Audio, Monitor: ASUS MG28U, Network: Realtek Device 2600 + Realtek Killer E3000 2.5GbE + Intel Wi-Fi 6 AX200

OS: Ubuntu 22.04, Kernel: 5.15.0-40-generic (x86_64), Desktop: GNOME Shell 42.2, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 22.0.1 (LLVM 13.0.1 DRM 3.42), Vulkan: 1.3.204, Compiler: GCC 11.2.0, File-System: ext4, Screen Resolution: 3840x2160

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-cet --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-serialization=2 --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-11-gBFGDP/gcc-11-11.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-11-gBFGDP/gcc-11-11.2.0/debian/tmp-gcn/usr --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --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: 0x8701021
Graphics Notes: BAR1 / Visible vRAM Size: 256 MB - vBIOS Version: 113-D0500100-102
Python Notes: Python 3.10.4
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + mmio_stale_data: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Retpolines IBPB: conditional STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

	A	AA	B	C
Unpacking The Linux Kernel - linux-5.19.tar.xz (sec)	**6.885**	6.816	**6.708**	6.814
Normalized	97.43%	98.42%	100%	98.44%
GravityMark - 1920 x 1080 - OpenGL (FPS)	104.1	**106**	**103.8**	104.6
Normalized	98.21%	100%	97.92%	98.68%

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GravityMark - 1920 x 1080 - Vulkan (FPS)	104.6	104.6	**104.8**	**104.4**
Normalized	99.81%	99.81%	100%	99.62%
GravityMark - 1920 x 1200 - OpenGL (FPS)	**103.1**	**103.9**	103.7	103.4
Normalized	99.23%	100%	99.81%	99.52%
GravityMark - 1920 x 1200 - Vulkan (FPS)	**104.4**	**104.4**	**104.4**	**104**
Normalized	100%	100%	100%	99.62%
GravityMark - 2560 x 1440 - OpenGL (FPS)	**88.9**	89.2	**89.7**	89.1
Normalized	99.11%	99.44%	100%	99.33%
GravityMark - 2560 x 1440 - Vulkan (FPS)	**90.2**	**90.2**	90.1	**89.6**
Normalized	100%	100%	99.89%	99.33%
GravityMark - 3840 x 2160 - OpenGL (FPS)	64.2	**64.5**	63.6	**63.4**
Normalized	99.53%	100%	98.6%	98.29%
GravityMark - 3840 x 2160 - Vulkan (FPS)	**64.4**	**64.4**	64.2	**64**
Normalized	100%	100%	99.69%	99.38%
Unvanquished - 1920 x 1080 - High (FPS)	**371.5**	**276**	293.2	347.1
Normalized	100%	74.29%	78.92%	93.43%
Unvanquished - 1920 x 1200 - High (FPS)	**333.9**	**275.9**	284.7	279.8
Normalized	100%	82.63%	85.27%	83.8%
Unvanquished - 2560 x 1440 - High (FPS)	**287.4**	**266.2**	279.1	280.6
Normalized	100%	92.62%	97.11%	97.63%
Unvanquished - 3840 x 2160 - High (FPS)	276.6	**268.9**	273.1	**281.1**
Normalized	98.4%	95.66%	97.15%	100%
Unvanquished - 1920 x 1080 - Ultra (FPS)	**264.2**	264.9	303.1	**315.1**
Normalized	83.85%	84.07%	96.19%	100%
Unvanquished - 1920 x 1200 - Ultra (FPS)	268.6	**365.1**	288.6	**265.9**
Normalized	73.57%	100%	79.05%	72.83%
Unvanquished - 2560 x 1440 - Ultra (FPS)	317.1	**340.9**	**275.4**	328.5
Normalized	93.02%	100%	80.79%	96.36%
Unvanquished - 3840 x 2160 - Ultra (FPS)	269.7	**277.2**	254.6	**253.9**
Normalized	97.29%	100%	91.85%	91.59%
Unvanquished - 1920 x 1080 - Medium (FPS)	**285.6**	282.7	271.6	**270.4**
Normalized	100%	98.98%	95.1%	94.68%
Unvanquished - 1920 x 1200 - Medium (FPS)	290.3	**282.1**	**372.4**	333.3
Normalized	77.95%	75.75%	100%	89.5%

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Unvanquished - 2560 x 1440 - Medium (FPS)	276.8	275.8	**288.5**	**271.6**
Normalized	95.94%	95.6%	100%	94.14%
Unvanquished - 3840 x 2160 - Medium (FPS)	277.6	275.7	**269.7**	**308.6**
Normalized	89.95%	89.34%	87.39%	100%
C-Blosc - blosclz shuffle (MB/s)	16319	16166	**16331**	**15704**
Normalized	99.93%	98.99%	100%	96.16%
C-Blosc - blosclz bitshuffle (MB/s)	**9276**	9132	**9116**	9159
Normalized	100%	98.44%	98.27%	98.73%
LAMMPS Molecular Dynamics Simulator - 20k Atoms (ns/day)	9.401	9.359	**9.418**	**9.351**
Normalized	99.82%	99.37%	100%	99.29%
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein	**9.382**	9.32	9.356	**9.291**
Normalized	100%	99.34%	99.72%	99.03%
srsRAN - OFDM_Test (Samples / Second)	**152100000**	145400000	**144100000**	145800000
Normalized	100%	95.6%	94.74%	95.86%
srsRAN - 4.P.1.P.M.6.Q (eNb Mb/s)	384	**384.1**	382.9	**381**
Normalized	99.97%	100%	99.69%	99.19%
srsRAN - 4.P.1.P.M.6.Q (UE Mb/s)	153.7	**153.8**	153.6	**152.2**
Normalized	99.93%	100%	99.87%	98.96%
srsRAN - 4.P.1.P.S.6.Q (eNb Mb/s)	384.4	**381.5**	385	**405.5**
Normalized	94.8%	94.08%	94.94%	100%
srsRAN - 4.P.1.P.S.6.Q (UE Mb/s)	166.3	**163.7**	166.3	**174.5**
Normalized	95.3%	93.81%	95.3%	100%
srsRAN - 4.P.1.P.M.2.Q (eNb Mb/s)	**407.5**	407.7	411.8	**421.3**
Normalized	96.72%	96.77%	97.75%	100%
srsRAN - 4.P.1.P.M.2.Q (UE Mb/s)	**161.8**	162.1	163.9	**167.4**
Normalized	96.65%	96.83%	97.91%	100%
srsRAN - 4.P.1.P.S.2.Q (eNb Mb/s)	410.8	411.6	**409.7**	**432.6**
Normalized	94.96%	95.15%	94.71%	100%
srsRAN - 4.P.1.P.S.2.Q (UE Mb/s)	174.5	**174.4**	**174.4**	**182.5**
Normalized	95.62%	95.56%	95.56%	100%
srsRAN - 5.P.T.5.P.S.6.Q (eNb Mb/s)	**109.2**	109.1	109	**107.5**
Normalized	100%	99.91%	99.82%	98.44%
srsRAN - 5.P.T.5.P.S.6.Q (UE Mb/s)	**61.4**	61.3	61.3	**60.5**
Normalized	100%	99.84%	99.84%	98.53%
GraphicsMagick - Swirl	**710**	703	703	**694**
Normalized	100%	99.01%	99.01%	97.75%
GraphicsMagick - Rotate	**746**	717	720	**697**
Normalized	100%	96.11%	96.51%	93.43%
GraphicsMagick - Sharpen (Iterations/min)	**199**	**199**	**199**	**198**
Normalized	100%	100%	100%	99.5%
GraphicsMagick - Enhanced (Iterations/min)	**309**	308	308	**307**
Normalized	100%	99.68%	99.68%	99.35%
GraphicsMagick - Resizing (Iterations/min)	**1456**	1431	1425	**1402**
Normalized	100%	98.28%	97.87%	96.29%

GraphicsMagick - Noise-Gaussian (Iterations/min)	**375**	370	369	**366**
Normalized	100%	98.67%	98.4%	97.6%
GraphicsMagick - HWB Color Space (Iterations/min)	**1410**	1334	1340	**1284**
Normalized	100%	94.61%	95.04%	91.06%
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	**1.875**	1.897	**1.899**	1.889
Normalized	98.74%	99.89%	100%	99.47%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	**41.883**	**43.188**	42.947	43.017
Normalized	96.98%	100%	99.44%	99.6%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	74.161	**75.625**	**72.547**	72.694
Normalized	98.06%	100%	95.93%	96.12%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**100.169**	**103.527**	101.896	101.6
Normalized	96.76%	100%	98.42%	98.14%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**5.218**	5.2	**5.179**	5.206
Normalized	100%	99.66%	99.25%	99.77%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	**111.03**	**113.974**	113.765	113.015
Normalized	97.42%	100%	99.82%	99.16%
SVT-AV1 - Preset 10 - Bosphorus 1080p (FPS)	**234.535**	235.312	237.139	**238.439**
Normalized	98.36%	98.69%	99.45%	100%
SVT-AV1 - Preset 12 - Bosphorus 1080p (FPS)	**346.647**	354.967	352.19	**358.604**
Normalized	96.67%	98.99%	98.21%	100%
7-Zip Compression - Compression Rating (MIPS)	87251	87486	**87489**	**87228**
Normalized	99.73%	100%	100%	99.7%
7-Zip Compression - D.R (MIPS)	92591	**92604**	**92125**	92255
Normalized	99.99%	100%	99.48%	99.62%
Timed Node.js Compilation - Time To Compile (sec)	**412.357**	**411.323**	412.148	411.677
Normalized	99.75%	100%	99.8%	99.91%
Timed PHP Compilation - Time To Compile (sec)	**52.74**	53.012	**53.336**	53.266
Normalized	100%	99.49%	98.88%	99.01%
Timed CPython Compilation - Default (sec)	**16.499**	16.506	16.531	**16.71**
Normalized	100%	99.96%	99.81%	98.74%
Timed CPython Compilation - R.B.P.L.O (sec)	**254.067**	255.927	256.385	**256.474**
Normalized	100%	99.27%	99.1%	99.06%
Primesieve - 1e12 (sec)	**13.88**	**13.928**	13.908	13.893
Normalized	100%	99.66%	99.8%	99.91%
Primesieve - 1e13 (sec)	174.017	**173.897**	174.23	**174.29**
Normalized	99.93%	100%	99.81%	99.77%

Timed Erlang/OTP Compilation - Time To Compile (sec)	82.548	83.223	82.507	83
Normalized	99.95%	99.14%	100%	99.41%
Timed Wasmer Compilation - Time To Compile (sec)	55.918	55.394	56.583	56.57
Normalized	99.06%	100%	97.9%	97.92%
Aircrack-ng (k/s)	45431	45409	45339	45303
Normalized	100%	99.95%	99.8%	99.72%
Node.js V8 Web Tooling Benchmark (runs/s)	11.41	11.38	11.2	11.41
Normalized	100%	99.74%	98.16%	100%
etcd - PUT - 50 - 100 (Reqs/sec)	78353	78823	78206	47231
Normalized	99.4%	100%	99.22%	59.92%
etcd - PUT - 50 - 100 - Average Latency (ms)	1.3	1.3	1.3	2.1
Normalized	100%	100%	100%	61.9%
etcd - PUT - 100 - 100 (Reqs/sec)	75898	76528	76773	39885
Normalized	98.86%	99.68%	100%	51.95%
etcd - PUT - 100 - 100 - Average Latency (ms)	1.3	1.3	1.3	2.5
Normalized	100%	100%	100%	52%
etcd - PUT - 50 - 1000 (Reqs/sec)	94397	94163	94330	90956
Normalized	100%	99.75%	99.93%	96.35%
etcd - PUT - 50 - 1000 - Average Latency (ms)	10.6	10.6	10.6	11
Normalized	100%	100%	100%	96.36%
etcd - PUT - 500 - 100 (Reqs/sec)	77476	77587	77587	72878
Normalized	99.86%	100%	100%	93.93%
etcd - PUT - 500 - 100 - Average Latency (ms)	1.3	1.3	1.3	1.4
Normalized	100%	100%	100%	92.86%
etcd - PUT - 100 - 1000 (Reqs/sec)	90990	90338	90993	90622
Normalized	100%	99.28%	100%	99.59%
etcd - PUT - 100 - 1000 - Average Latency (ms)	11	11.1	11	11
Normalized	100%	99.1%	100%	100%
etcd - PUT - 500 - 1000 (Reqs/sec)	77983	77976	77403	78093
Normalized	99.86%	99.85%	99.12%	100%
etcd - PUT - 500 - 1000 - Average Latency (ms)	12.8	12.8	12.9	12.8
Normalized	100%	100%	99.22%	100%
etcd - RANGE - 50 - 100 (Reqs/sec)	78944	77875	78644	78992
Normalized	99.94%	98.59%	99.56%	100%
etcd - RANGE - 50 - 100 - Average Latency (ms)	1.3	1.3	1.3	1.3
etcd - RANGE - 100 - 100 (Reqs/sec)	76760	76765	76893	76168
Normalized	99.83%	99.83%	100%	99.06%
etcd - RANGE - 100 - 100 - Average Latency (ms)	1.3	1.3	1.3	1.3
etcd - RANGE - 50 - 1000 (Reqs/sec)	94965	94925	94578	94757
Normalized	100%	99.96%	99.59%	99.78%

etcd - RANGE - 50 - 1000 - Average Latency (ms)	**10.5**	**10.5**	**10.6**	**10.5**
Normalized	100%	100%	99.06%	100%
etcd - RANGE - 500 - 100 (Reqs/sec)	77586	**77604**	77468	**77236**
Normalized	99.98%	100%	99.82%	99.53%
etcd - RANGE - 500 - 100 - Average Latency (ms)	1.3	1.3	1.3	1.3
etcd - RANGE - 100 - 1000 (Reqs/sec)	91455	91001	**90811**	**91458**
Normalized	100%	99.5%	99.29%	100%
etcd - RANGE - 100 - 1000 - Average Latency (ms)	**10.9**	**11**	**11**	**10.9**
Normalized	100%	99.09%	99.09%	100%
etcd - RANGE - 500 - 1000 (Reqs/sec)	**77739**	**78128**	78090	78062
Normalized	99.5%	100%	99.95%	99.92%
etcd - RANGE - 500 - 1000 - Average Latency (ms)	12.8	12.8	12.8	12.8
Dragonflydb - 50 - 1:1 (Ops/sec)	2920541	**2907433**	2934355	**2949073**
Normalized	99.03%	98.59%	99.5%	100%
Dragonflydb - 50 - 1:5 (Ops/sec)	**3129188**	**3135276**	3135021	3129880
Normalized	99.81%	100%	99.99%	99.83%
Dragonflydb - 50 - 5:1 (Ops/sec)	**2772546**	**2828286**	2808029	2819421
Normalized	98.03%	100%	99.28%	99.69%
Dragonflydb - 200 - 1:1 (Ops/sec)	2678726	**2698411**	**2678724**	2685467
Normalized	99.27%	100%	99.27%	99.52%
Dragonflydb - 200 - 1:5 (Ops/sec)	**2849837**	**2872812**	2869779	2859262
Normalized	99.2%	100%	99.89%	99.53%
Dragonflydb - 200 - 5:1 (Ops/sec)	**2581693**	2575240	**2558359**	2574046
Normalized	100%	99.75%	99.1%	99.7%
Redis - GET - 50 (Reqs/sec)	**2522241**	**2079443**	2240761	2154908
Normalized	100%	82.44%	88.84%	85.44%
Redis - SET - 50 (Reqs/sec)	1680646	**1757007**	**1643631**	1739321
Normalized	95.65%	100%	93.55%	98.99%
Redis - GET - 500 (Reqs/sec)	**2329307**	**2177740**	2269879	2222756
Normalized	100%	93.49%	97.45%	95.43%
Redis - LPOP - 50 (Reqs/sec)	**2668280**	**1561894**	1607074	1584212
Normalized	100%	58.54%	60.23%	59.37%
Redis - SADD - 50 (Reqs/sec)	1965905	2004170	**2064021**	**1913001**
Normalized	95.25%	97.1%	100%	92.68%
Redis - SET - 500 (Reqs/sec)	**1828454**	1797753	**1667975**	1761153
Normalized	100%	98.32%	91.22%	96.32%
Redis - GET - 1000 (Reqs/sec)	2213728	**2307918**	2276088	**2205646**
Normalized	95.92%	100%	98.62%	95.57%
Redis - LPOP - 500 (Reqs/sec)	**2489961**	**1484165**	1582057	1488289
Normalized	100%	59.61%	63.54%	59.77%
Redis - LPUSH - 50 (Reqs/sec)	1626151	1556351	**1634363**	**1535984**
Normalized	99.5%	95.23%	100%	93.98%
Redis - SADD - 500 (Reqs/sec)	**2113399**	1984163	2029669	**1980390**
Normalized	100%	93.88%	96.04%	93.71%
Redis - SET - 1000 (Reqs/sec)	1709317	1692135	**1756955**	**1678740**
Normalized	97.29%	96.31%	100%	95.55%
Redis - LPOP - 1000 (Reqs/sec)	1564537	**1516645**	**1586939**	1557075
Normalized	98.59%	95.57%	100%	98.12%

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Redis - LPUSH - 500 (Reqs/sec)	**1655878**	1619935	**1614599**	1623722
Normalized	100%	97.83%	97.51%	98.06%
Redis - SADD - 1000 (Reqs/sec)	1944702	**1904874**	**2065008**	1972683
Normalized	94.17%	92.25%	100%	95.53%
Redis - LPUSH - 1000 (Reqs/sec)	**1659306**	1652421	**1581549**	1605827
Normalized	100%	99.59%	95.31%	96.78%
ASTC Encoder - Fast (MT/s)	**186.9099**	**187.9758**	187.2165	187.3579
Normalized	99.43%	100%	99.6%	99.67%
ASTC Encoder - Medium (MT/s)	**60.9154**	**60.8401**	60.8701	60.8695
Normalized	100%	99.88%	99.93%	99.92%
ASTC Encoder - Thorough (MT/s)	**7.2108**	**7.1996**	7.2038	7.2072
Normalized	100%	99.84%	99.9%	99.95%
ASTC Encoder - Exhaustive (MT/s)	**0.7872**	0.7866	**0.7858**	0.7865
Normalized	100%	99.92%	99.82%	99.91%
memtier_benchmark - Redis - 50 - 1:1 (Ops/sec)	**1810860**	1739113	**1719792**	1730287
Normalized	100%	96.04%	94.97%	95.55%
memtier_benchmark - Redis - 50 - 1:5 (Ops/sec)	**1911666**	1868300	**1844255**	1865192
Normalized	100%	97.73%	96.47%	97.57%
memtier_benchmark - Redis - 50 - 5:1 (Ops/sec)	**1684780**	**1631076**	1642719	1663747
Normalized	100%	96.81%	97.5%	98.75%
memtier_benchmark - Redis - 100 - 1:1 (Ops/sec)	1696795	**1699071**	1694596	**1693868**
Normalized	99.87%	100%	99.74%	99.69%
memtier_benchmark - Redis - 100 - 1:5 (Ops/sec)	1824326	**1794814**	1811034	**1857393**
Normalized	98.22%	96.63%	97.5%	100%
memtier_benchmark - Redis - 100 - 5:1 (Ops/sec)	1648820	1640264	**1621199**	**1666965**
Normalized	98.91%	98.4%	97.25%	100%
memtier_benchmark - Redis - 50 - 1:10 (Ops/sec)	1891612	1909296	**1875260**	**1936392**
Normalized	97.69%	98.6%	96.84%	100%
memtier_benchmark - Redis - 500 - 1:5 (Ops/sec)	**1956693**		1717058	**1768277**
Normalized	100%		87.75%	90.37%
memtier_benchmark - Redis - 500 - 5:1 (Ops/sec)	**1601060**	1682665		**1692892**
Normalized	94.58%	99.4%		100%
memtier_benchmark - Redis - 100 - 1:10 (Ops/sec)	1852262	**1816335**	**1918907**	1868140
Normalized	96.53%	94.65%	100%	97.35%
Mobile Neural Network - nasnet (ms)	**13.268**	**16.042**	13.922	13.903
Normalized	100%	82.71%	95.3%	95.43%
Mobile Neural Network - mobilenetV3 (ms)	**2.053**	**2.408**	2.188	2.188
Normalized	100%	85.26%	93.83%	93.83%

Mobile Neural Network - squeezenetv1.1 (ms)	**4.098**	**5.094**	4.147	4.232
Normalized	100%	80.45%	98.82%	96.83%
Mobile Neural Network - resnet-v2-50 (ms)	**32.121**	**36.1**	32.686	32.383
Normalized	100%	88.98%	98.27%	99.19%
Mobile Neural Network - SqueezeNetV1.0 (ms)	**6.116**	**7.699**	6.201	6.419
Normalized	100%	79.44%	98.63%	95.28%
Mobile Neural Network - MobileNetV2_224 (ms)	**4.002**	**4.95**	4.336	4.364
Normalized	100%	80.85%	92.3%	91.7%
Mobile Neural Network - mobilenet-v1-1.0 (ms)	**5.205**	**5.883**	5.336	5.282
Normalized	100%	88.48%	97.54%	98.54%
Mobile Neural Network - inception-v3 (ms)	28.557	**29.868**	**28.38**	29.313
Normalized	99.38%	95.02%	100%	96.82%
NCNN - CPU - mobilenet (ms)	**14.02**	14.17	14.05	**14.18**
Normalized	100%	98.94%	99.79%	98.87%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	**4.63**	4.65	4.64	**4.69**
Normalized	100%	99.57%	99.78%	98.72%
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	**4.06**	**4.09**	4.07	**4.09**
Normalized	100%	99.27%	99.75%	99.27%
NCNN - CPU - shufflenet-v2 (ms)	**4.84**	**4.87**	**4.87**	**4.87**
Normalized	100%	99.38%	99.38%	99.38%
NCNN - CPU - mnasnet (ms)	**4.18**	4.21	4.19	**4.22**
Normalized	100%	99.29%	99.76%	99.05%
NCNN - CPU - efficientnet-b0 (ms)	**6.45**	**6.52**	6.48	6.5
Normalized	100%	98.93%	99.54%	99.23%
NCNN - CPU - blazeface (ms)	**2.09**	2.1	2.11	**2.12**
Normalized	100%	99.52%	99.05%	98.58%
NCNN - CPU - googlenet (ms)	15.11	**33.08**	15.21	**15.09**
Normalized	99.87%	45.62%	99.21%	100%
NCNN - CPU - vgg16 (ms)	**49.1**	**49.72**	49.31	49.31
Normalized	100%	98.75%	99.57%	99.57%
NCNN - CPU - resnet18 (ms)	12.62	**12.68**	12.64	**12.59**
Normalized	99.76%	99.29%	99.6%	100%
NCNN - CPU - alexnet (ms)	9.94	**9.99**	**9.92**	**9.92**
Normalized	99.8%	99.3%	100%	100%
NCNN - CPU - resnet50 (ms)	**20.87**	**21.35**	20.9	**20.87**
Normalized	100%	97.75%	99.86%	100%
NCNN - CPU - yolov4-tiny (ms)	25.75	**25.73**	25.87	**25.99**
Normalized	99.92%	100%	99.46%	99%
NCNN - CPU - squeezenet_ssd (ms)	**21.03**	**21.03**	21.16	**21.2**
Normalized	100%	100%	99.39%	99.2%
NCNN - CPU - regnety_400m (ms)	**13.75**	13.82	**13.88**	13.86
Normalized	100%	99.49%	99.06%	99.21%
NCNN - CPU - vision_transformer (ms)	**155.14**	**157.08**	155.89	156.99
Normalized	100%	98.76%	99.52%	98.82%
NCNN - CPU - FastestDet (ms)	**5.62**	5.65	5.65	**5.66**
Normalized	100%	99.47%	99.47%	99.29%

3900xt-september

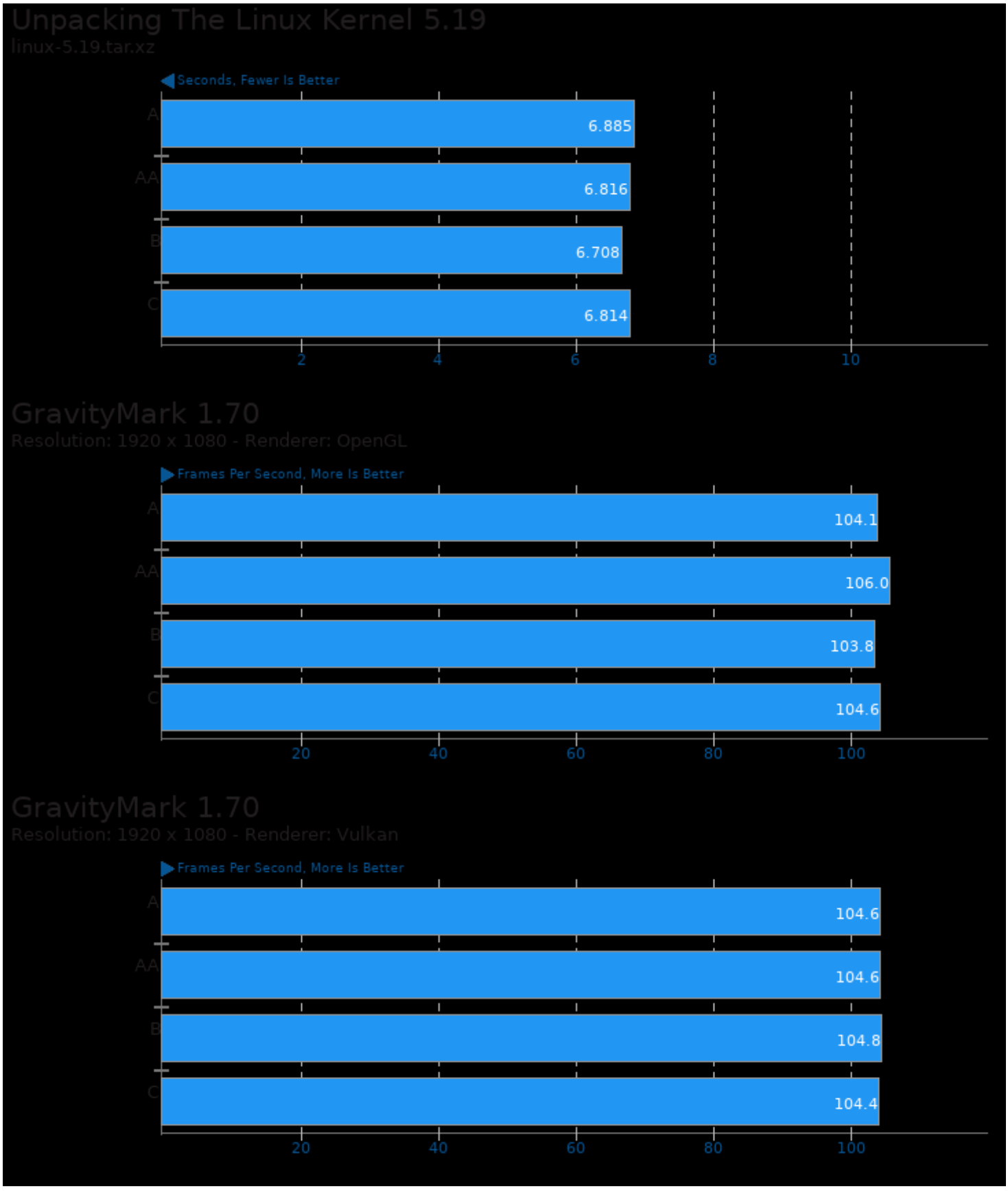
NCNN - Vulkan GPU - mobilenet (ms)	8.42	8.42	8.51	8.45
Normalized	100%	100%	98.94%	99.64%
NCNN - Vulkan GPU-v2-v2 - mobilenet-v2 (ms)	2.41	2.43	2.42	2.44
Normalized	100%	99.18%	99.59%	98.77%
NCNN - Vulkan GPU-v3-v3 - mobilenet-v3 (ms)	3.07	3.07	3.07	3.07
NCNN - Vulkan GPU - shufflenet-v2	2.47	2.5	2.51	2.52
Normalized	100%	98.8%	98.41%	98.02%
NCNN - Vulkan GPU - mnasnet (ms)	2.52	2.54	2.53	2.54
Normalized	100%	99.21%	99.6%	99.21%
NCNN - Vulkan GPU - efficientnet-b0 (ms)	7.73	7.73	7.65	7.74
Normalized	98.84%	98.84%	99.87%	98.71%
NCNN - Vulkan GPU - blazeface (ms)	1.59	1.6	1.6	1.6
Normalized	100%	99.38%	99.38%	99.38%
NCNN - Vulkan GPU - googlenet (ms)	5.09	5.1	5.1	5.11
Normalized	100%	99.8%	99.8%	99.61%
NCNN - Vulkan GPU - vgg16 (ms)	5.58	5.58	5.57	5.58
Normalized	99.82%	99.82%	100%	99.82%
NCNN - Vulkan GPU - resnet18 (ms)	2.68	2.69	2.68	2.69
Normalized	100%	99.63%	100%	99.63%
NCNN - Vulkan GPU - alexnet (ms)	2.05	2.07	2.07	2.07
Normalized	100%	99.03%	99.03%	99.03%
NCNN - Vulkan GPU - resnet50 (ms)	5.05	5.08	5.07	5.08
Normalized	100%	99.41%	99.61%	99.41%
NCNN - Vulkan GPU - yolov4-tiny (ms)	11.45	11.4	11.45	11.5
Normalized	99.56%	100%	99.56%	99.13%
NCNN - Vulkan GPU - squeezenet_ssd (ms)	5.13	5.16	5.12	5.13
Normalized	99.81%	99.22%	100%	99.81%
NCNN - Vulkan GPU - regnety_400m (ms)	4.25	4.25	4.27	4.26
Normalized	100%	100%	99.53%	99.77%
NCNN - Vulkan GPU - vision_transformer (ms)	153.75	153.04	155.34	153.44
Normalized	99.54%	100%	98.52%	99.74%
NCNN - Vulkan GPU - FastestDet (ms)	2.88	2.84	2.88	2.91
Normalized	98.61%	100%	98.61%	97.59%
Blender - BMW27 - CPU-Only (sec)	100.04	98.54	98.5	98.52
Normalized	98.46%	99.96%	100%	99.98%
Blender - Classroom - CPU-Only (sec)	257.49	254.68	254.59	253.84
Normalized	98.58%	99.67%	99.71%	100%
Blender - Fishy Cat - CPU-Only (sec)	125.98	126.53	125.77	125.2
Normalized	99.38%	98.95%	99.55%	100%
Blender - Barbershop - CPU-Only	1032	1029	1034	1027
Normalized	99.55%	99.85%	99.38%	100%
Blender - Pabellon Barcelona - CPU-Only (sec)	321.22	318.03	319.01	319.32
Normalized	99.01%	100%	99.69%	99.6%
OpenVINO - F.D.F - CPU (FPS)	2.64	2.63	2.67	2.65
Normalized	98.88%	98.5%	100%	99.25%

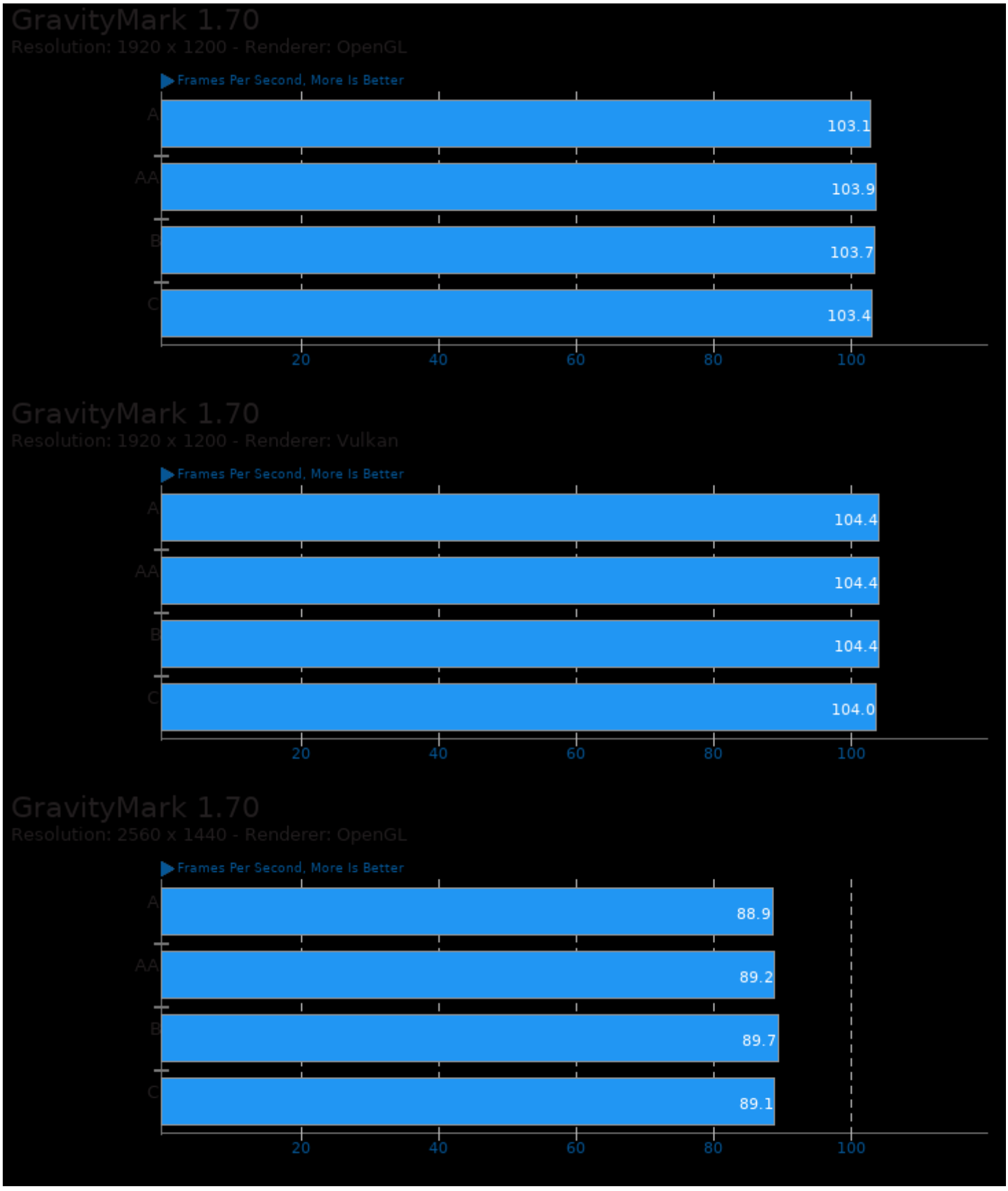
3900xt-september

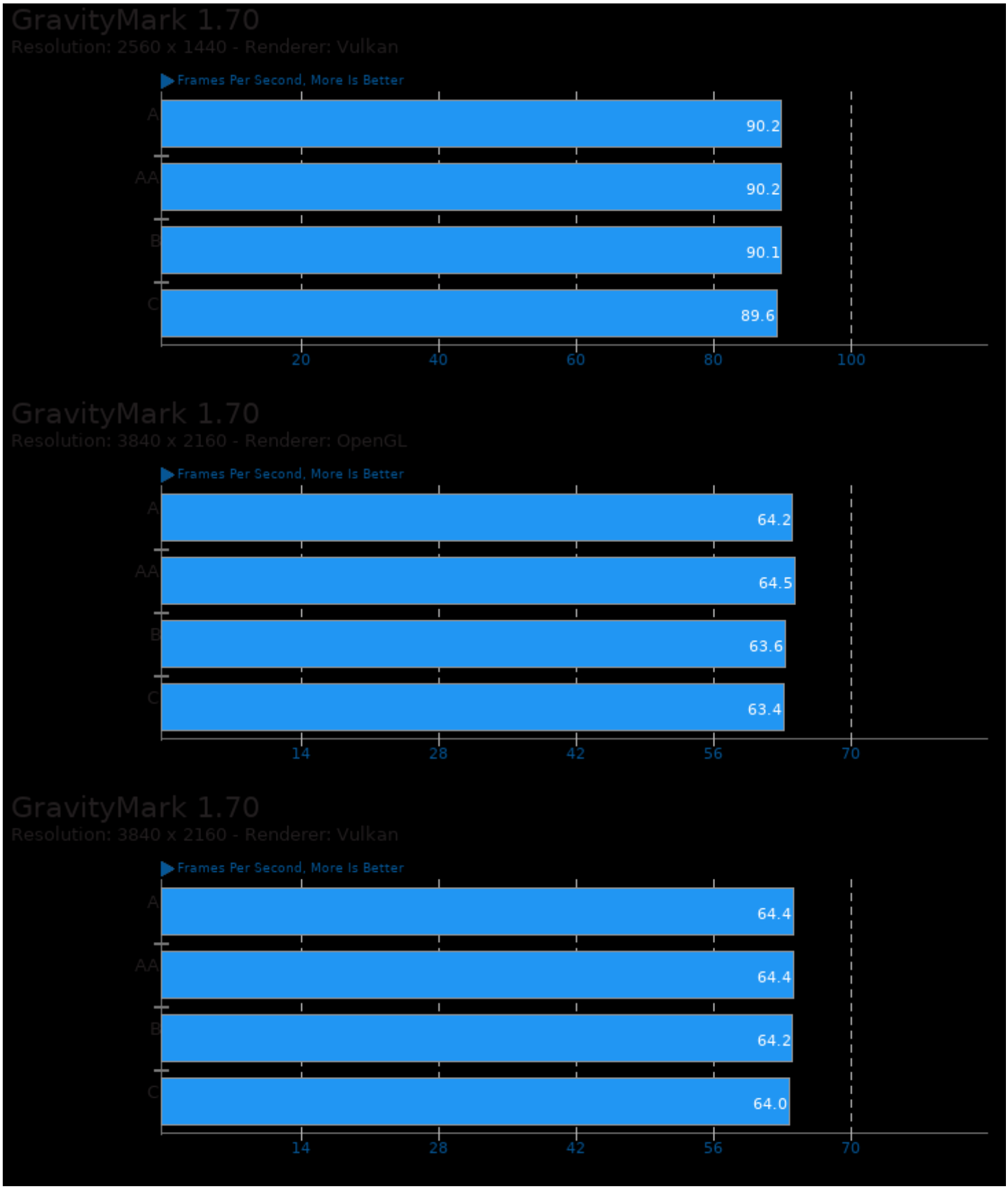
OpenVINO - F.D.F - CPU (ms)	2269	**2279**	**2238**	2251
Normalized	98.64%	98.21%	100%	99.45%
OpenVINO - P.D.F - CPU (FPS)	1.91	**1.9**	**1.9**	**1.92**
Normalized	99.48%	98.96%	98.96%	100%
OpenVINO - P.D.F - CPU (ms)	3099	**3124**	3121	**3087**
Normalized	99.63%	98.83%	98.93%	100%
OpenVINO - P.D.F - CPU (FPS)	1.92	**1.89**	1.91	**1.94**
Normalized	98.97%	97.42%	98.45%	100%
OpenVINO - P.D.F - CPU (ms)	3084	**3105**	3093	**3044**
Normalized	98.7%	98.04%	98.43%	100%
OpenVINO - V.D.F - CPU (FPS)	170.86	173.53	**166.57**	**174.02**
Normalized	98.18%	99.72%	95.72%	100%
OpenVINO - V.D.F - CPU (ms)	35.09	34.55	**35.99**	**34.45**
Normalized	98.18%	99.71%	95.72%	100%
OpenVINO - F.D.F.I - CPU (FPS)	**4.35**	**4.31**	**4.31**	**4.31**
Normalized	100%	99.08%	99.08%	99.08%
OpenVINO - F.D.F.I - CPU (ms)	**1378**	1387	1386	**1388**
Normalized	100%	99.37%	99.47%	99.28%
OpenVINO - V.D.F.I - CPU (FPS)	369.89	**369.9**	**368.92**	369.83
Normalized	100%	100%	99.74%	99.98%
OpenVINO - V.D.F.I - CPU (ms)	**16.21**	**16.21**	**16.25**	**16.21**
Normalized	100%	100%	99.75%	100%
OpenVINO - W.P.D.F - CPU (FPS)	**302.2**	302.44	**302.53**	302.39
Normalized	99.89%	99.97%	100%	99.95%
OpenVINO - W.P.D.F - CPU (ms)	**19.83**	19.82	**19.81**	19.82
Normalized	99.9%	99.95%	100%	99.95%
OpenVINO - M.T.E.T.D.F - CPU (FPS)	**29.48**	28.62	**28.5**	28.94
Normalized	100%	97.08%	96.68%	98.17%
OpenVINO - M.T.E.T.D.F - CPU (ms)	**203.27**	209.5	**210.33**	206.98
Normalized	100%	97.03%	96.64%	98.21%
OpenVINO - W.P.D.F.I - CPU (FPS)	**427.87**	427.35	426.73	**426.7**
Normalized	100%	99.88%	99.73%	99.73%
OpenVINO - W.P.D.F.I - CPU (ms)	**28.03**	28.07	**28.11**	**28.11**
Normalized	100%	99.86%	99.72%	99.72%
OpenVINO - P.V.B.D.F - CPU (FPS)	347.84	**348.24**	**345.45**	346.46
Normalized	99.89%	100%	99.2%	99.49%
OpenVINO - P.V.B.D.F - CPU (ms)	17.23	**17.21**	**17.35**	17.3
Normalized	99.88%	100%	99.19%	99.48%
OpenVINO - A.G.R.R.0.F - CPU (FPS)	**9458**	**9531**	9479	9528
Normalized	99.23%	100%	99.46%	99.97%
OpenVINO - A.G.R.R.0.F - CPU (ms)	**1.26**	**1.25**	**1.26**	**1.25**
Normalized	99.21%	100%	99.21%	100%
OpenVINO - A.G.R.R.0.F.I - CPU (FPS)	**12925**	12948	**12955**	12937
Normalized	99.77%	99.95%	100%	99.86%
OpenVINO - A.G.R.R.0.F.I - CPU (ms)	0.92	0.92	0.92	0.92
Facebook RocksDB - Rand Fill (Op/s)	**914759**	916583	917048	**917383**
Normalized	99.71%	99.91%	99.96%	100%
Facebook RocksDB - Rand Read	**60836317**	60052818	**59015149**	59735063
Normalized	100%	98.71%	97.01%	98.19%
Facebook RocksDB - Update Rand (Op/s)	**550239**	547827	**546189**	549826
Normalized	100%	99.56%	99.26%	99.92%
Facebook RocksDB - Seq Fill (Op/s)	1059712	1057965	**1054349**	**1059729**

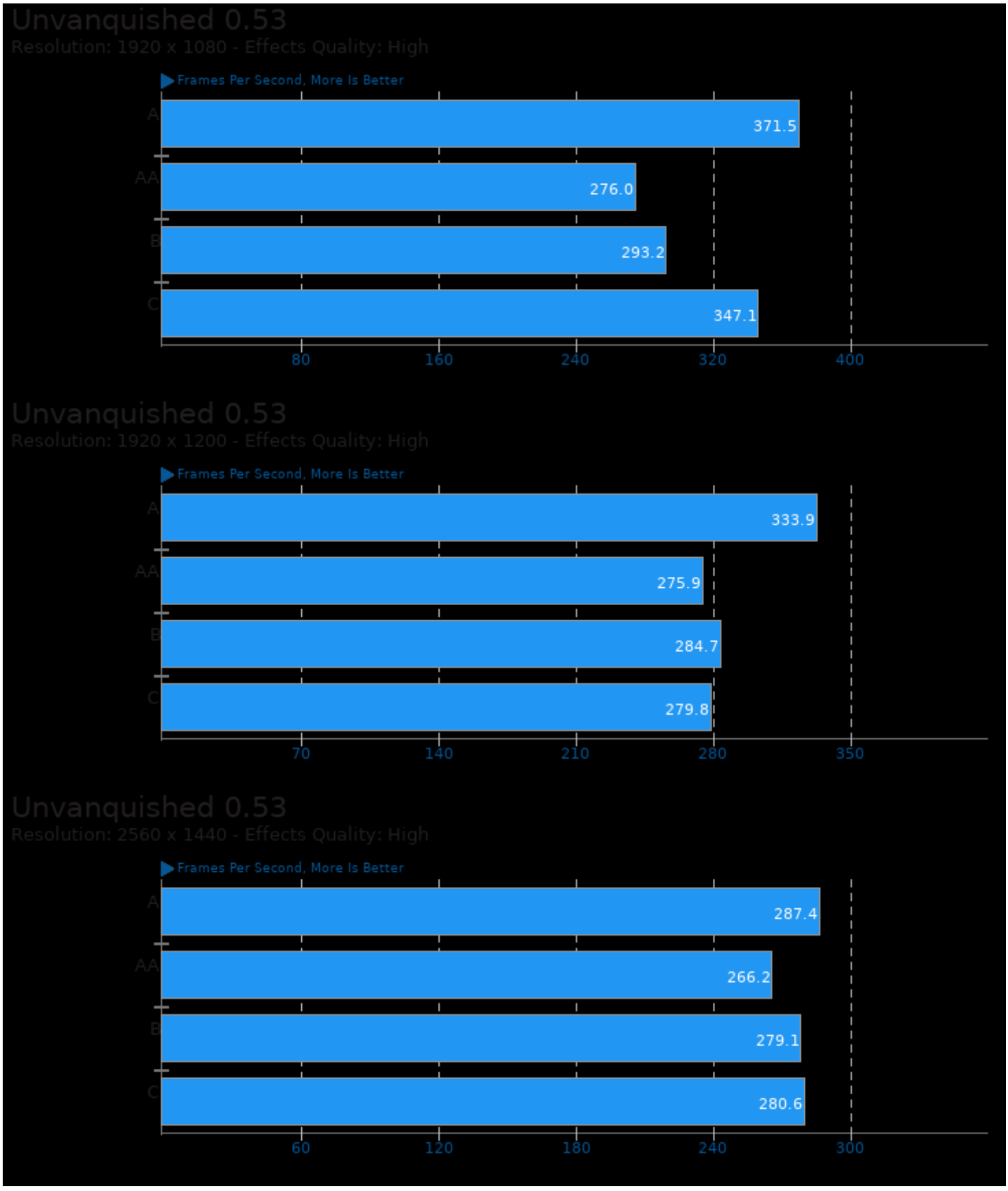
3900xt-september

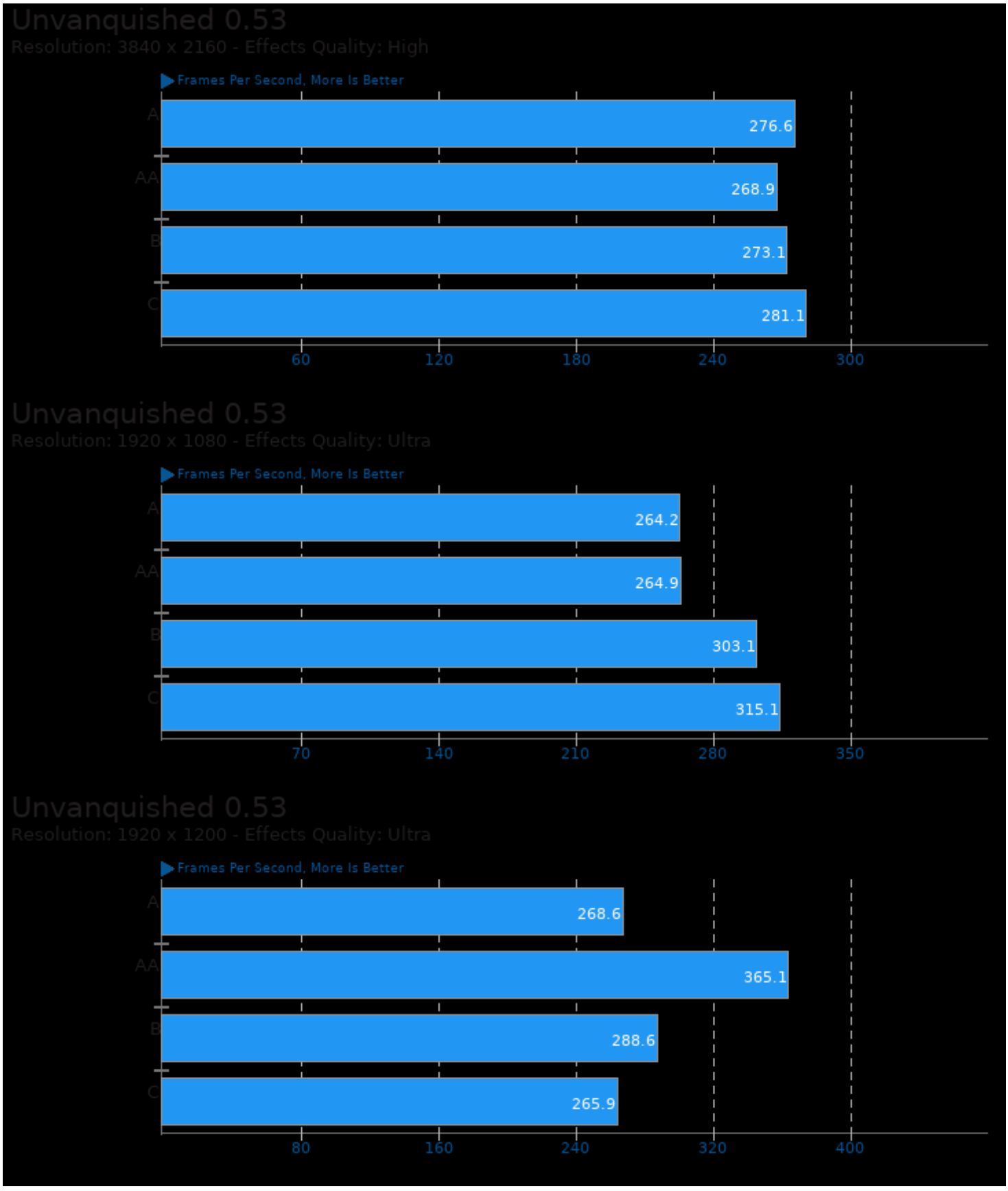
Normalized	100%	99.83%	99.49%	100%
Facebook RocksDB - Rand Fill Sync (Op/s)	**13085**	13069	**13040**	13076
Normalized	100%	99.88%	99.66%	99.93%
Facebook RocksDB - Read While Writing (Op/s)	2614220	**2597712**	2643393	**2749536**
Normalized	95.08%	94.48%	96.14%	100%
Facebook RocksDB - R.R.W.R (Op/s)	1918881	**1908955**	1909640	**1924607**
Normalized	99.7%	99.19%	99.22%	100%
Natron - Spaceship (FPS)	**3.2**	**3.1**	**3.2**	**3.2**
Normalized	100%	96.88%	100%	100%
ClickHouse - 1.R.W.A.D.F.R.C.C (Queries/min, Geo Mean)		141.26	**137.77**	**141.89**
Normalized		99.56%	97.1%	100%
ClickHouse - 1.R.W.A.D.S.R (Queries/min, Geo Mean)		**152.36**	157.24	**164.39**
Normalized		92.68%	95.65%	100%
ClickHouse - 1.R.W.A.D.T.R (Queries/min, Geo Mean)		164.16	**164.51**	**160.78**
Normalized		99.79%	100%	97.73%
memtier_benchmark - Redis - 500 - 1:10 (Ops/sec)		1868280	**1741551**	**2002479**
Normalized		93.3%	86.97%	100%
BRL-CAD - V.P.M (VGR Performance Metric)		**187035**	**188216**	188128
Normalized		99.37%	100%	99.95%
memtier_benchmark - Redis - 500 - 1:1 (Ops/sec)			**1624386**	**1591305**
Normalized			100%	97.96%

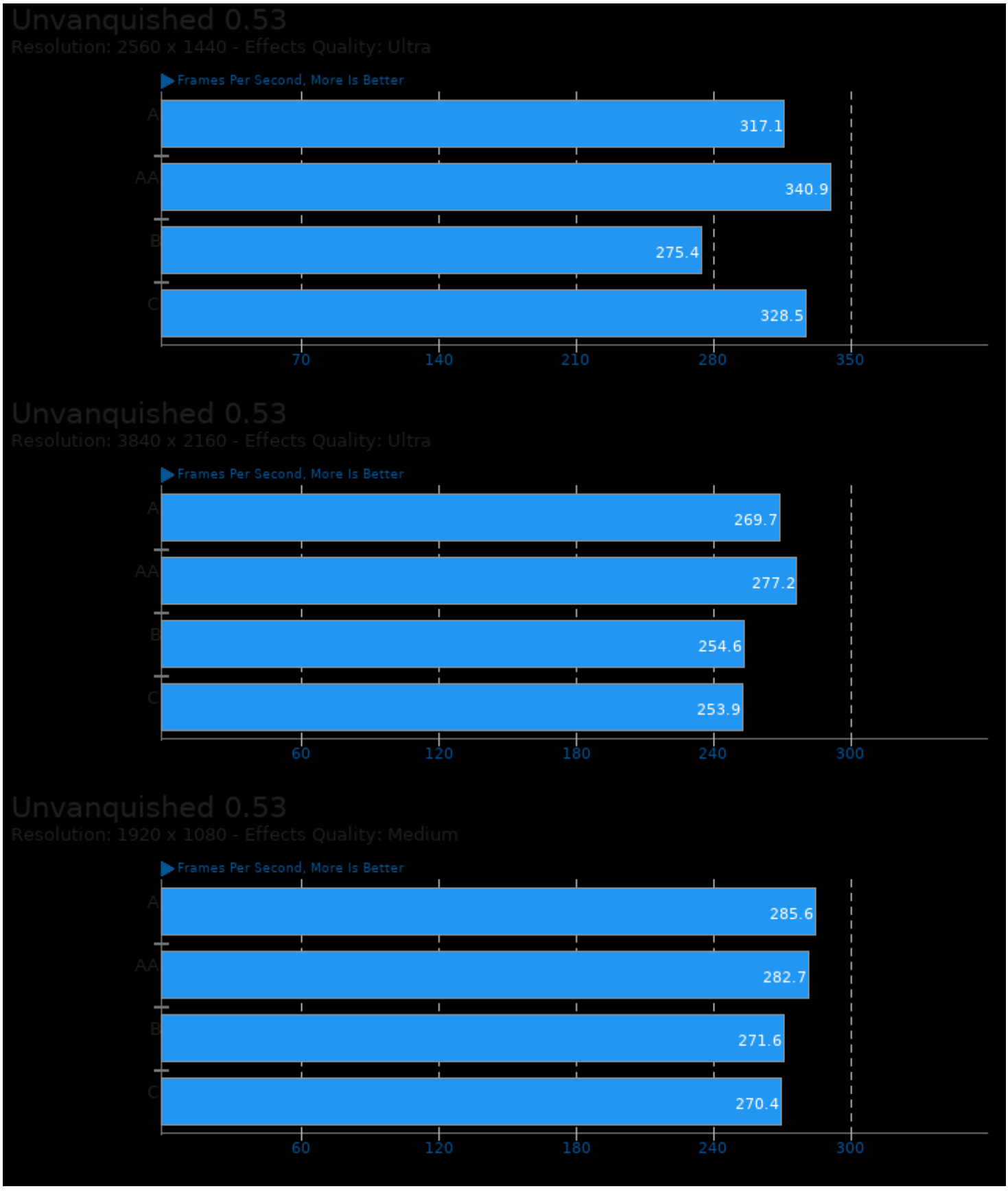

Unpacking The Linux Kernel 5.19
linux-5.19.tar.xz
Seconds, Fewer Is Better
A
AA
B
C
6.885
6.816
6.708
6.814
2
4
6
8
10
GravityMark 1.70
Resolution: 1920 x 1080 - Renderer: OpenGL
Frames Per Second, More Is Better
A
AA
B
C
104.1
106.0
103.8
104.6
20
40
60
80
100
GravityMark 1.70
Resolution: 1920 x 1080 - Renderer: Vulkan
Frames Per Second, More Is Better
A
AA
B
C
104.6
104.6
104.8
104.4
20
40
60
80
100

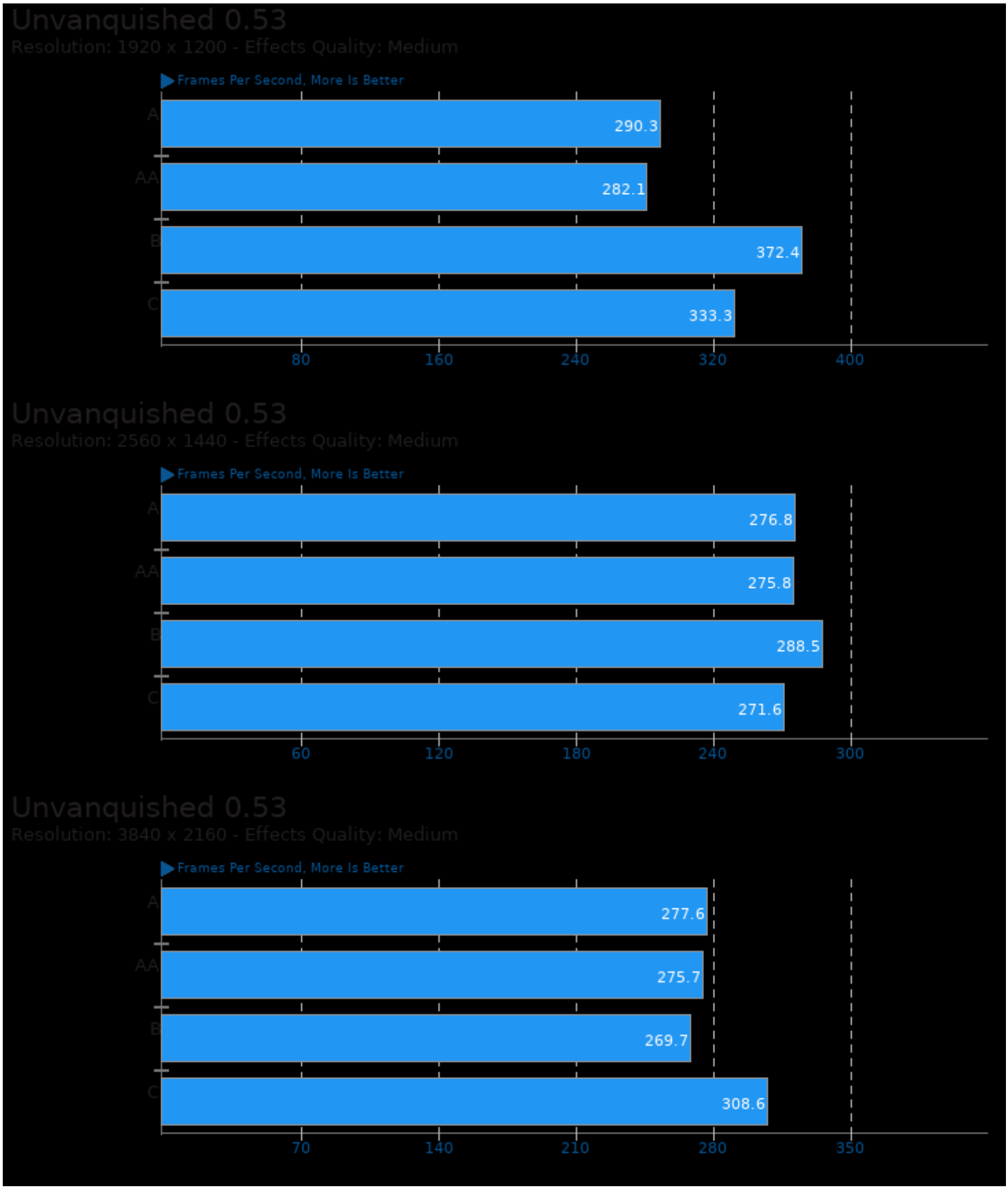

GravityMark 1.70
Resolution: 1920 x 1200 - Renderer: OpenGL
Frames Per Second, More Is Better
A
AA
B
C
103.1
103.9
103.7
103.4
20
40
60
80
100
GravityMark 1.70
Resolution: 1920 x 1200 - Renderer: Vulkan
Frames Per Second, More Is Better
A
AA
B
C
104.4
104.4
104.4
104.0
20
40
60
80
100
GravityMark 1.70
Resolution: 2560 x 1440 - Renderer: OpenGL
Frames Per Second, More Is Better
A
AA
B
C
88.9
89.2
89.7
89.1
20
40
60
80
100

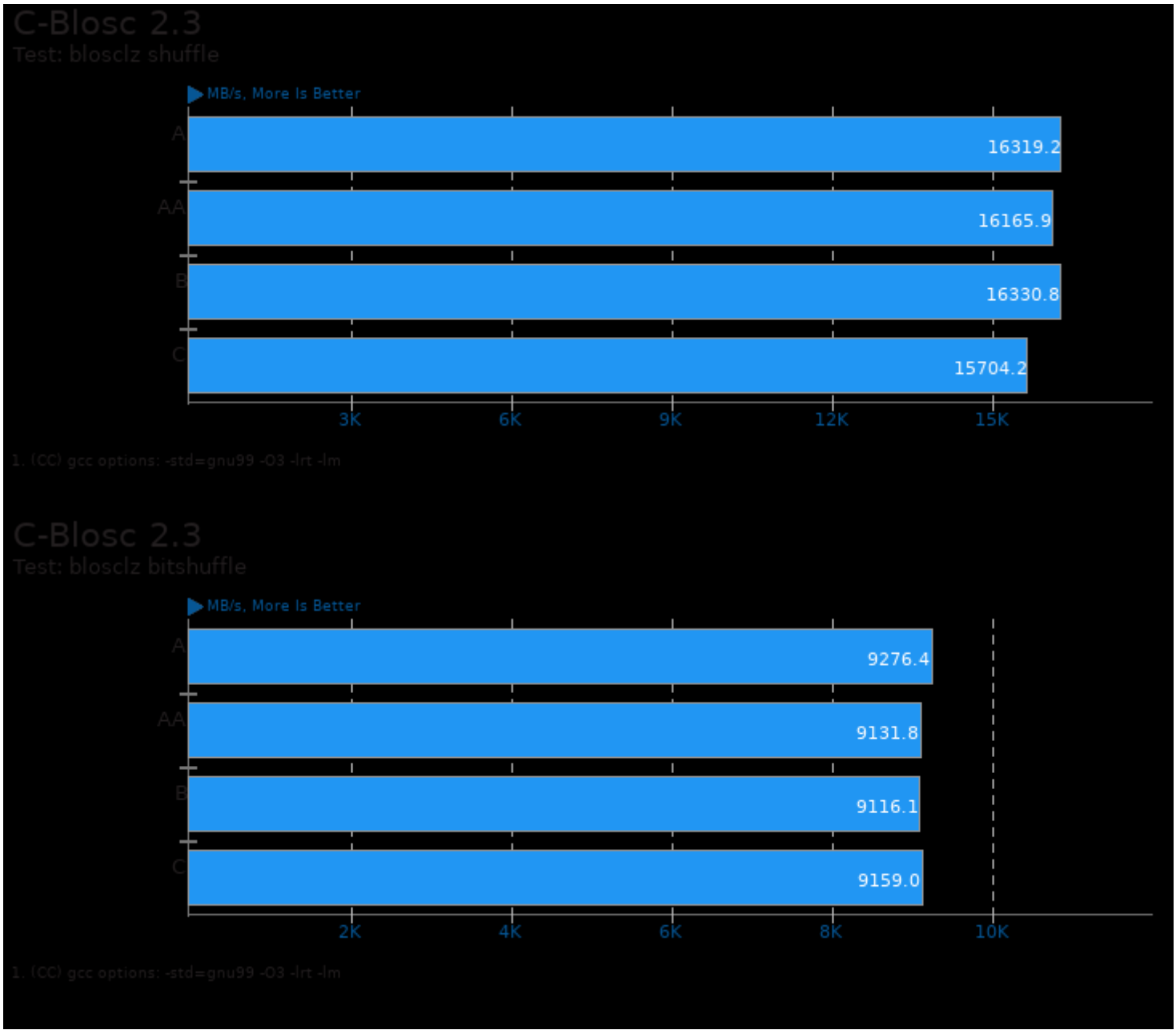

GravityMark 1.70
Resolution: 2560 x 1440 - Renderer: Vulkan
Frames Per Second, More Is Better
A
AA
B
C
90.2
90.2
90.1
89.6
20
40
60
80
100
GravityMark 1.70
Resolution: 3840 x 2160 - Renderer: OpenGL
Frames Per Second, More Is Better
A
AA
B
C
64.2
64.5
63.6
63.4
14
28
42
56
70
GravityMark 1.70
Resolution: 3840 x 2160 - Renderer: Vulkan
Frames Per Second, More Is Better
A
AA
B
C
64.4
64.4
64.2
64.0
14
28
42
56
70

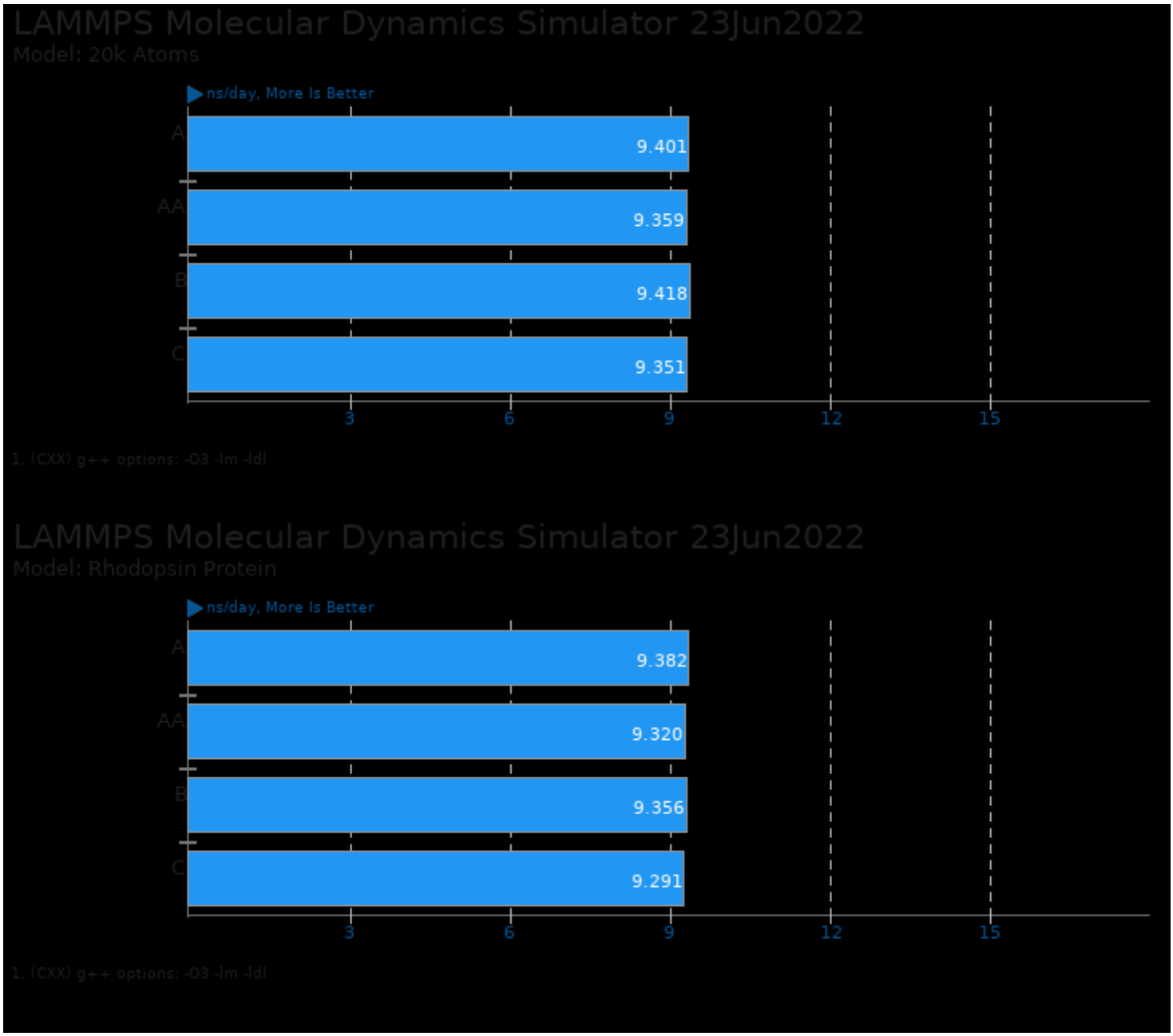

Unvanquished 0.53
Resolution: 1920 x 1080 - Effects Quality: High
Frames Per Second, More Is Better
A
AA
B
C
371.5
276.0
293.2
347.1
80
160
240
320
400
Unvanquished 0.53
Resolution: 1920 x 1200 - Effects Quality: High
Frames Per Second, More Is Better
A
AA
B
C
333.9
275.9
284.7
279.8
70
140
210
280
350
Unvanquished 0.53
Resolution: 2560 x 1440 - Effects Quality: High
Frames Per Second, More Is Better
A
AA
B
C
287.4
266.2
279.1
280.6
60
120
180
240
300

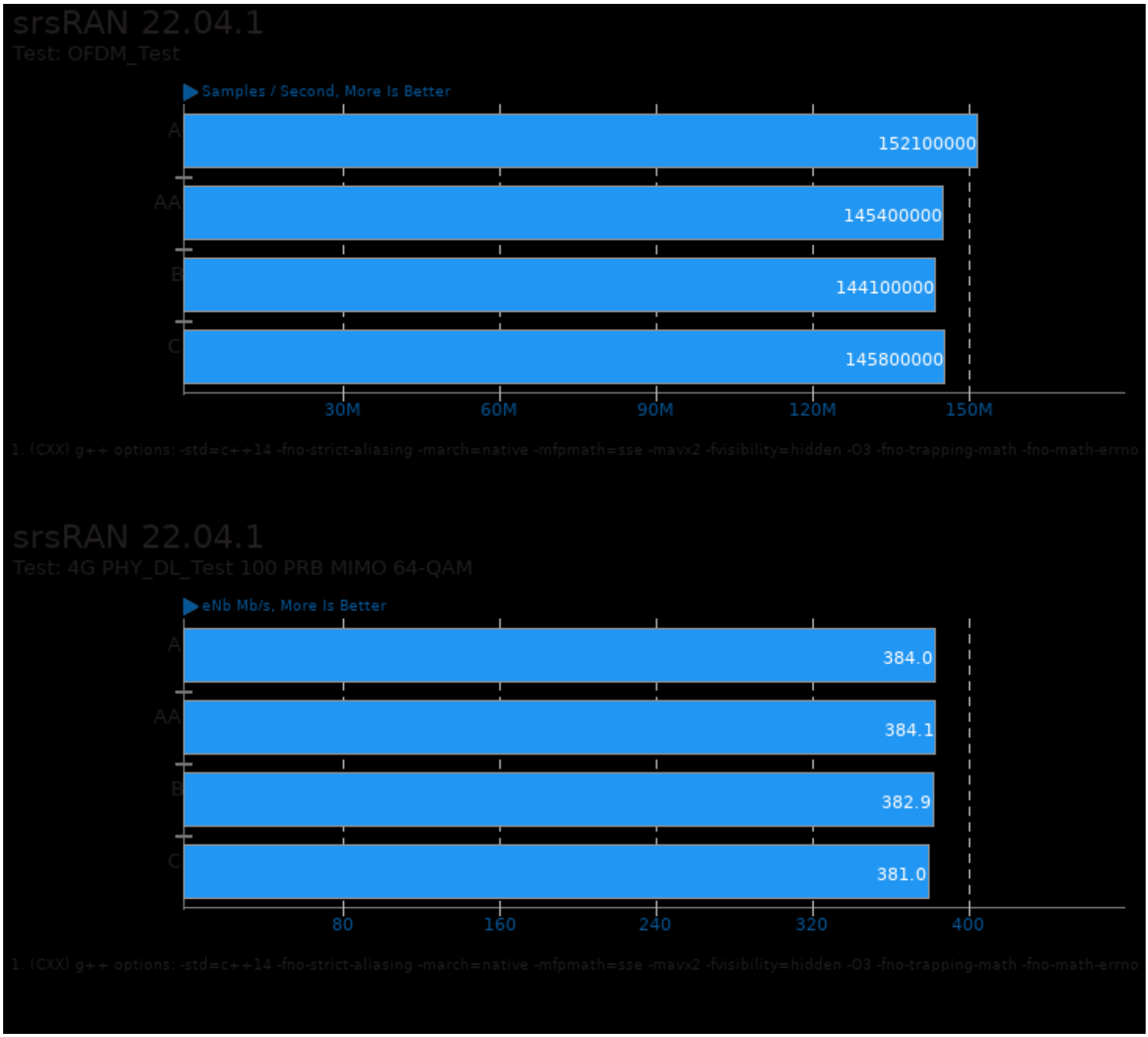

Unvanquished 0.53
Resolution: 3840 x 2160 - Effects Quality: High
Frames Per Second, More Is Better
A
AA
B
C
276.6
268.9
273.1
281.1
60
120
180
240
300
Unvanquished 0.53
Resolution: 1920 x 1080 - Effects Quality: Ultra
Frames Per Second, More Is Better
A
AA
B
C
264.2
264.9
303.1
315.1
70
140
210
280
350
Unvanquished 0.53
Resolution: 1920 x 1200 - Effects Quality: Ultra
Frames Per Second, More Is Better
A
AA
B
C
268.6
365.1
288.6
265.9
80
160
240
320
400

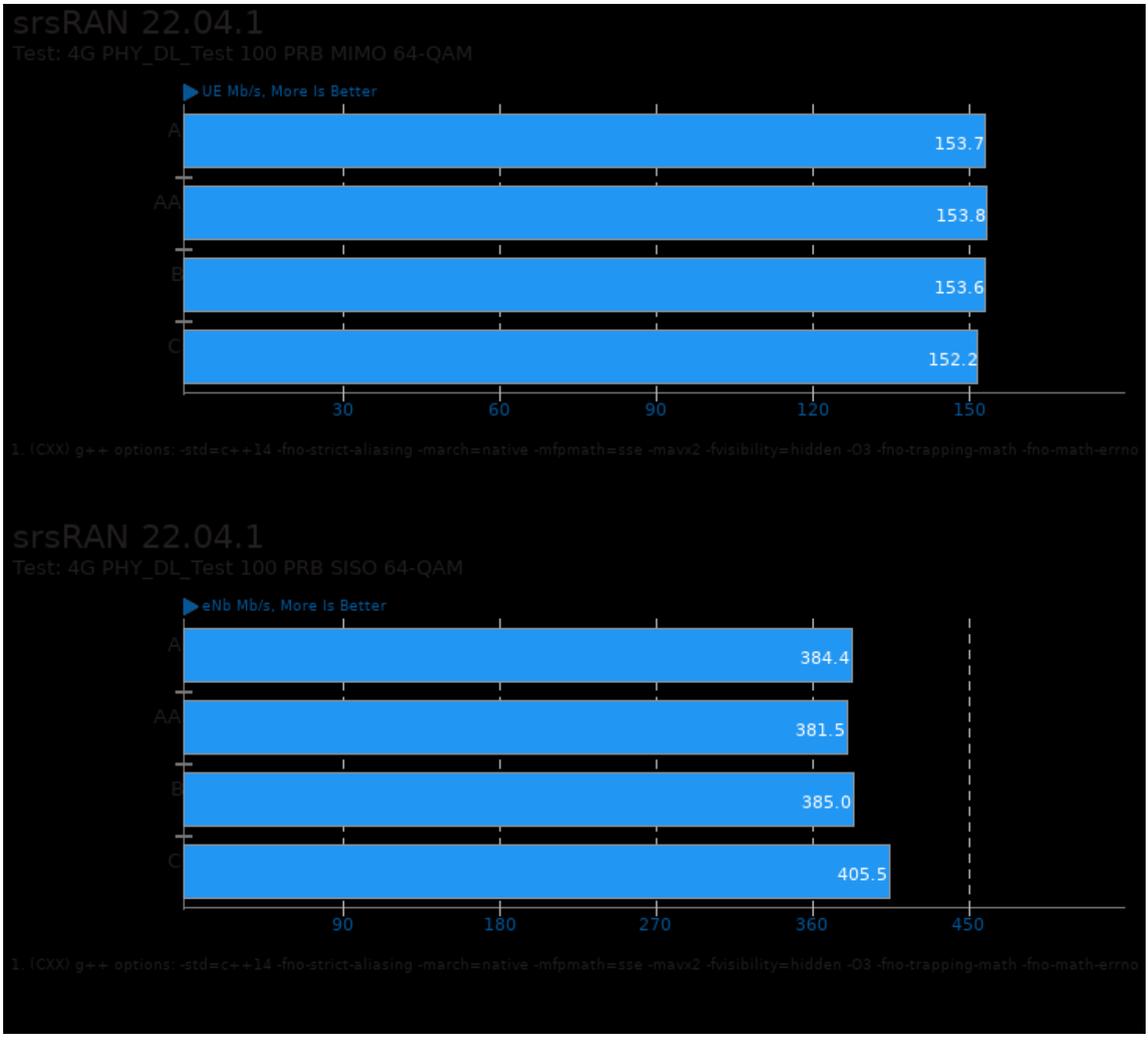

Unvanquished 0.53
Resolution: 2560 x 1440 - Effects Quality: Ultra
Frames Per Second, More Is Better
A
AA
B
C
317.1
340.9
275.4
328.5
70
140
210
280
350
Unvanquished 0.53
Resolution: 3840 x 2160 - Effects Quality: Ultra
Frames Per Second, More Is Better
A
AA
B
C
269.7
277.2
254.6
253.9
60
120
180
240
300
Unvanquished 0.53
Resolution: 1920 x 1080 - Effects Quality: Medium
Frames Per Second, More Is Better
A
AA
B
C
285.6
282.7
271.6
270.4
60
120
180
240
300

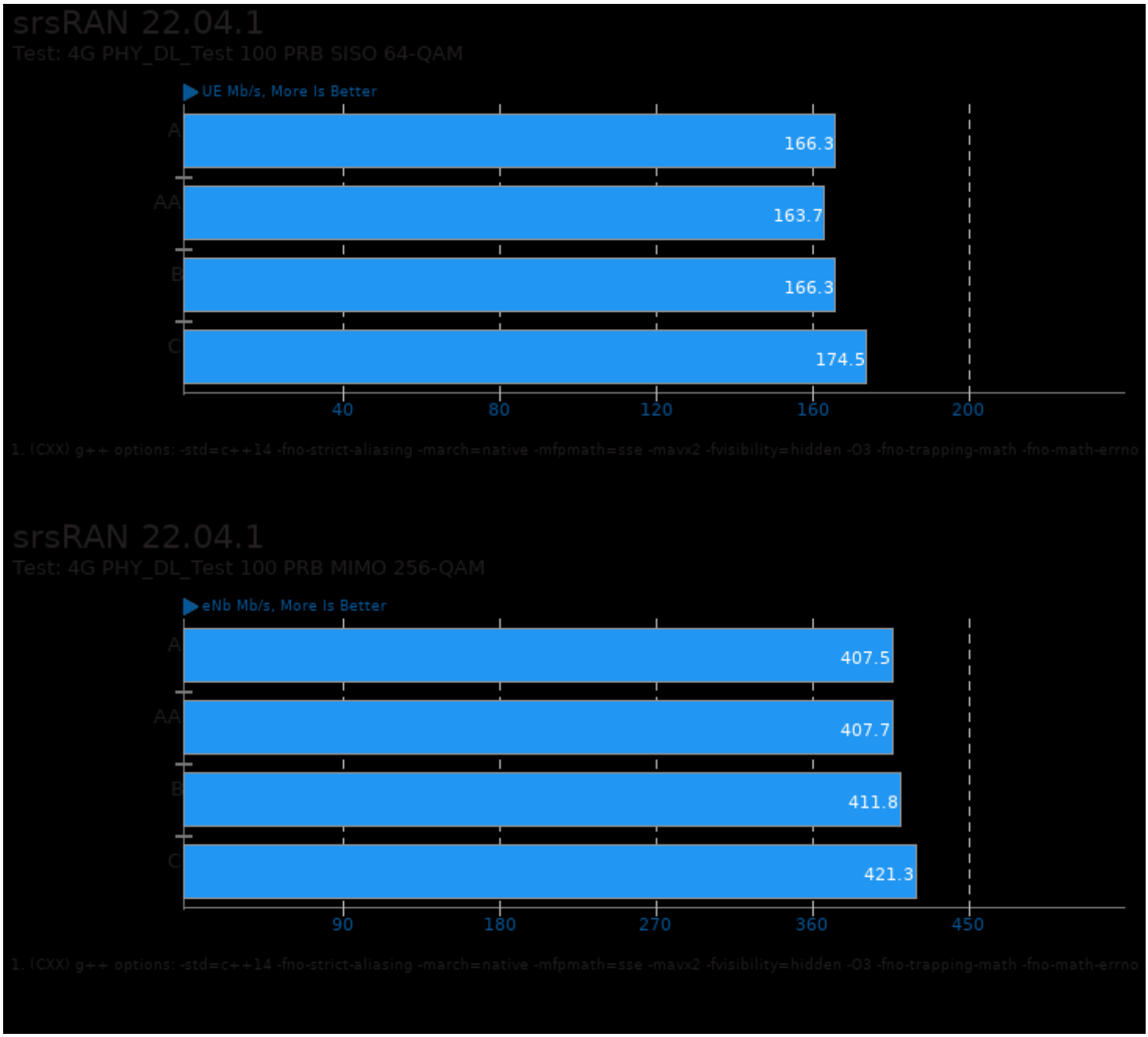

Unvanquished 0.53
Resolution: 1920 x 1200 - Effects Quality: Medium
Frames Per Second, More Is Better
A
AA
B
C
290.3
282.1
372.4
333.3
80
160
240
320
400
Unvanquished 0.53
Resolution: 2560 x 1440 - Effects Quality: Medium
Frames Per Second, More Is Better
A
AA
B
C
276.8
275.8
288.5
271.6
60
120
180
240
300
Unvanquished 0.53
Resolution: 3840 x 2160 - Effects Quality: Medium
Frames Per Second, More Is Better
A
AA
B
C
277.6
275.7
269.7
308.6
70
140
210
280
350

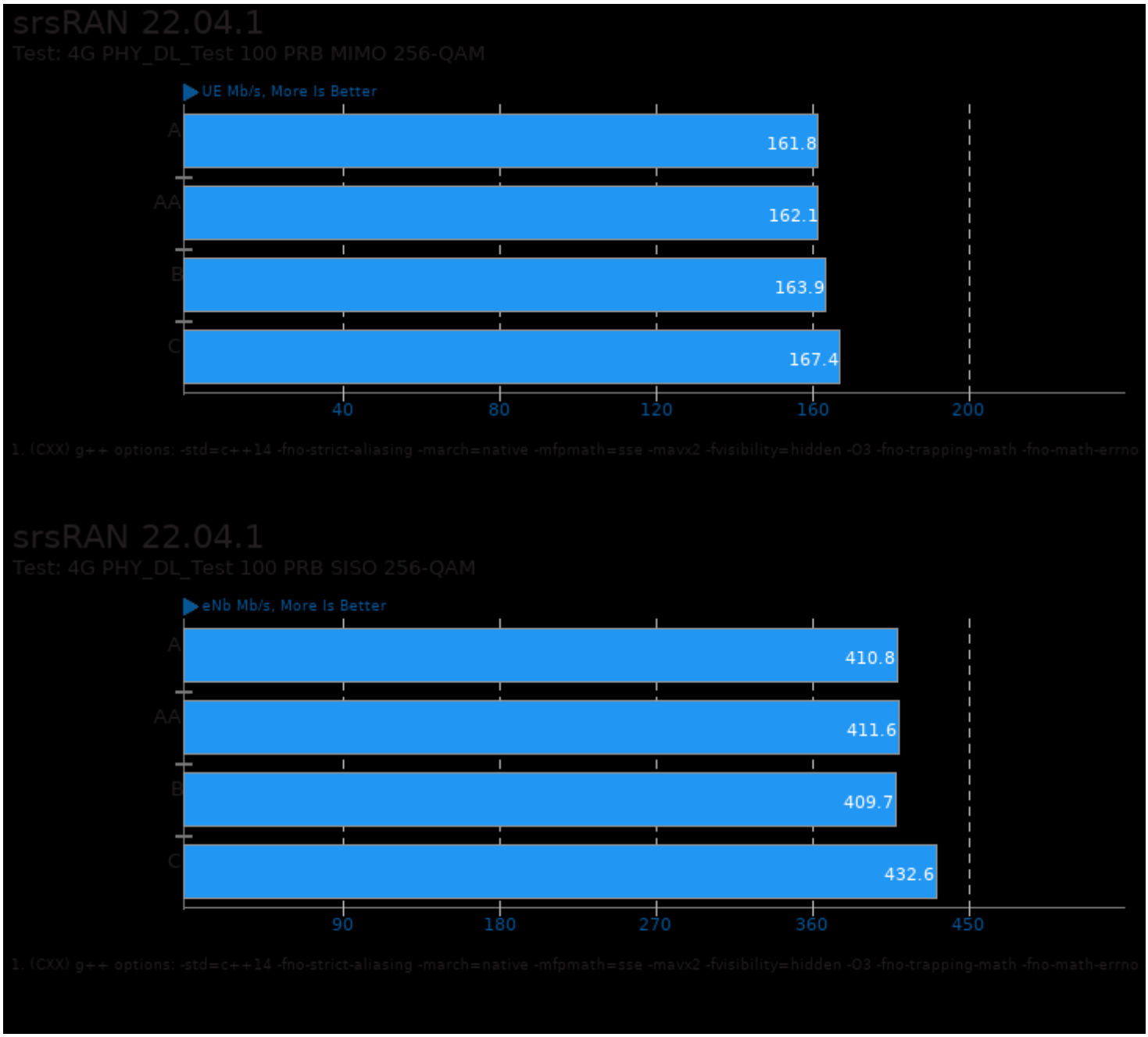

C-Blosc 2.3
Test: blosclz shuffle
MB/s, More Is Better
A
AA
B
C
16319.2
16165.9
16330.8
15704.2
3K
6K
9K
12K
15K
1. (CC) gcc options: -std=gnu99 -O3 -lrt -lm
C-Blosc 2.3
Test: blosclz bitshuffle
MB/s, More Is Better
A
AA
B
C
9276.4
9131.8
9116.1
9159.0
2K
4K
6K
8K
10K
1. (CC) gcc options: -std=gnu99 -O3 -lrt -lm

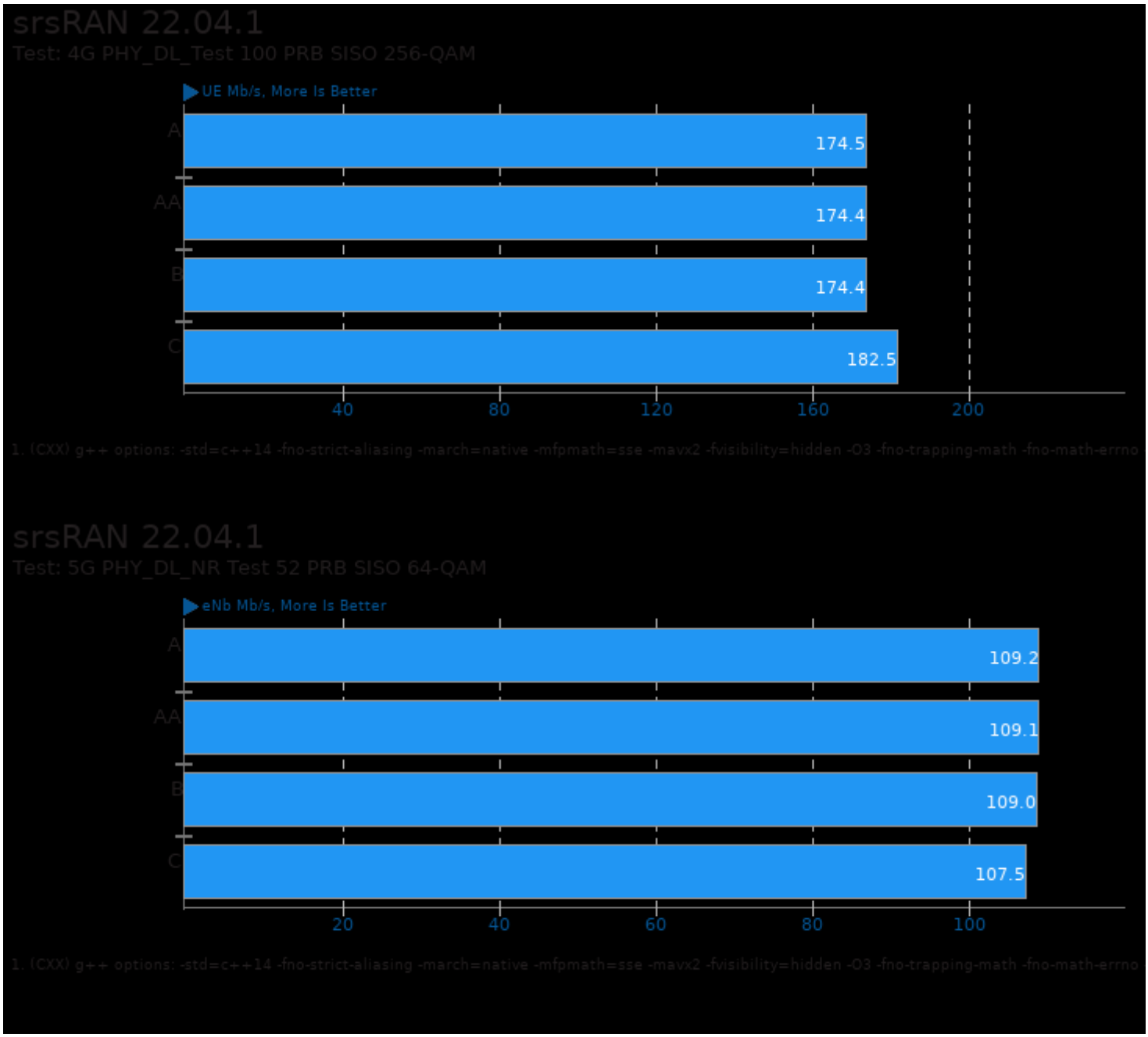

LAMMPS Molecular Dynamics Simulator 23Jun2022
Model: 20k Atoms
ns/day, More Is Better
A
AA
B
C
9.401
9.359
9.418
9.351
3
6
9
12
15
1. (CXX) g++ options: -O3 -lm -ldl
LAMMPS Molecular Dynamics Simulator 23Jun2022
Model: Rhodopsin Protein
ns/day, More Is Better
A
AA
B
C
9.382
9.320
9.356
9.291
3
6
9
12
15
1. (CXX) g++ options: -O3 -lm -ldl


srsRAN 22.04.1
Test: OFDM_Test
Samples / Second, More Is Better
A
AA
B
C
152100000
145400000
144100000
145800000
30M
60M
90M
120M
150M
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
A
AA
B
C
384.0
384.1
382.9
381.0
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 MIMO 64-QAM
UE Mb/s, More Is Better
A
AA
B
C
153.7
153.8
153.6
152.2
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
A
AA
B
C
384.4
381.5
385.0
405.5
90
180
270
360
450
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

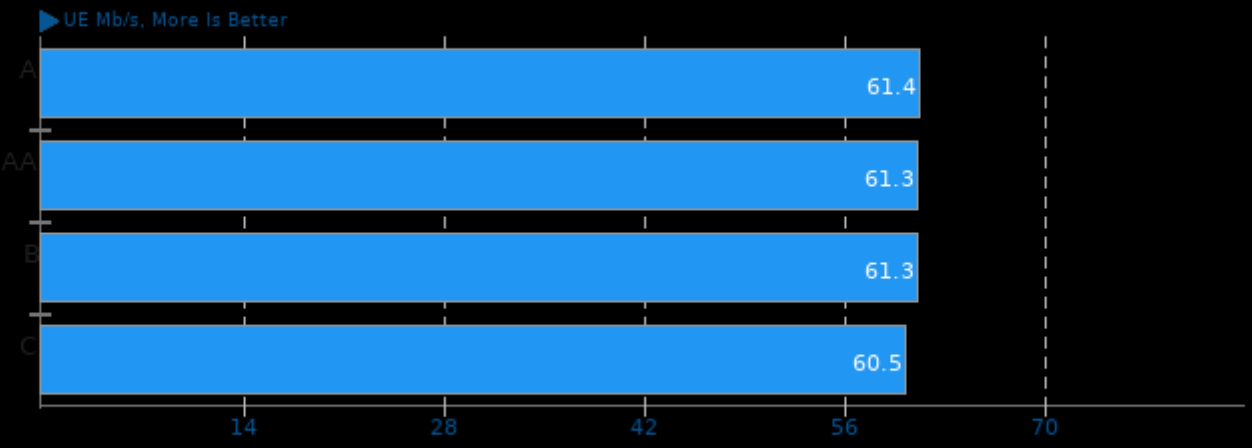

srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB SISO 64-QAM
UE Mb/s, More Is Better
A
AA
B
C
166.3
163.7
166.3
174.5
40
80
120
160
200
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno
srsRAN 22.04.1
Test: 4G PHY_DL_Test 100 PRB MIMO 256-QAM
eNb Mb/s, More Is Better
A
AA
B
C
407.5
407.7
411.8
421.3
90
180
270
360
450
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
A
AA
B
C
161.8
162.1
163.9
167.4
40
80
120
160
200
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
A
AA
B
C
410.8
411.6
409.7
432.6
90
180
270
360
450
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
A
AA
B
C
174.5
174.4
174.4
182.5
40
80
120
160
200
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
A
AA
B
C
109.2
109.1
109.0
107.5
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

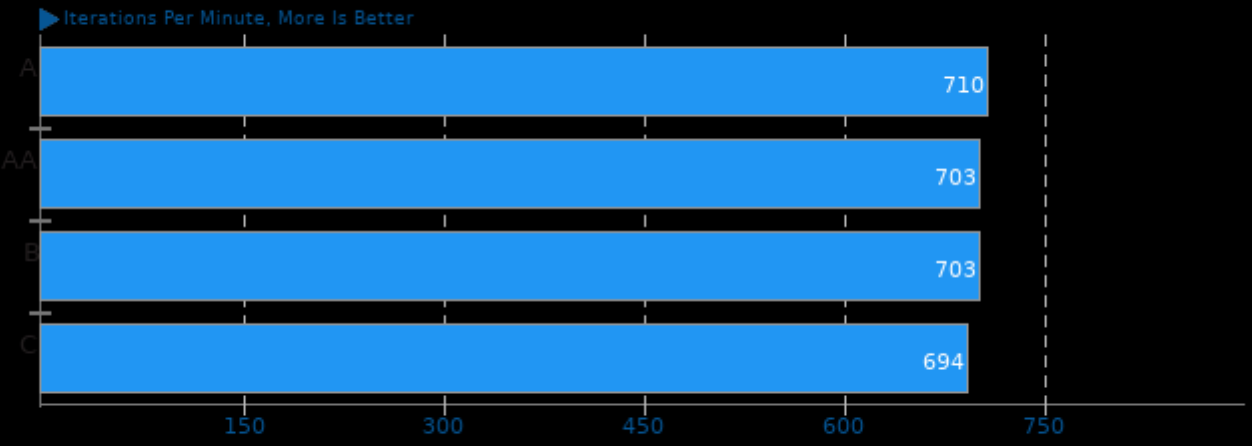
Test: 5G PHY_DL_NR Test 52 PRB SISO 64-QAM



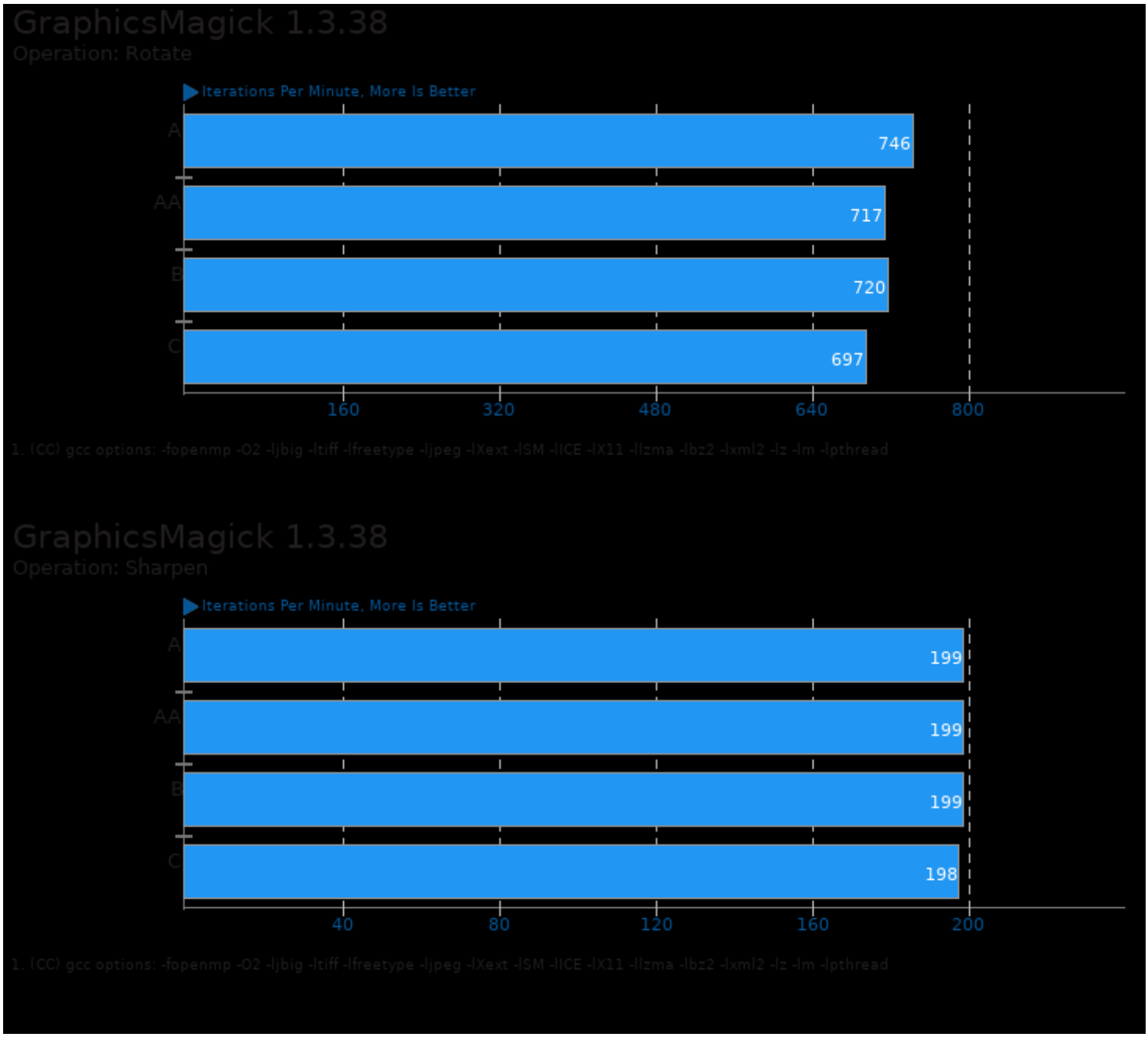
1. (CXX) g++ options: -std=c++14 -fno-strict-aliasing -march=native -mfpmath=sse -mavx2 -fvisibility=hidden -O3 -fno-trapping-math -fno-math-errno

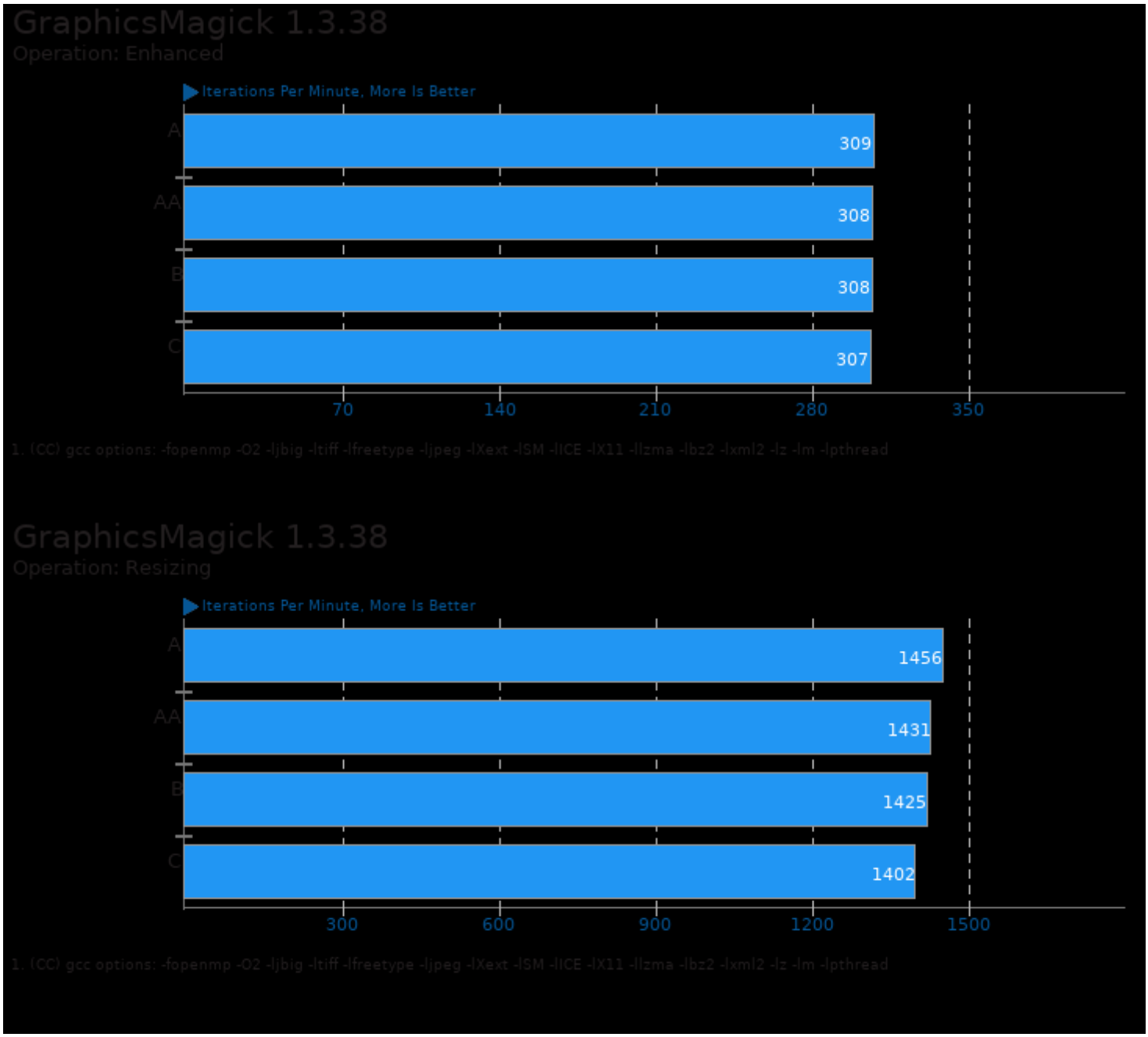
GraphicsMagick 1.3.38

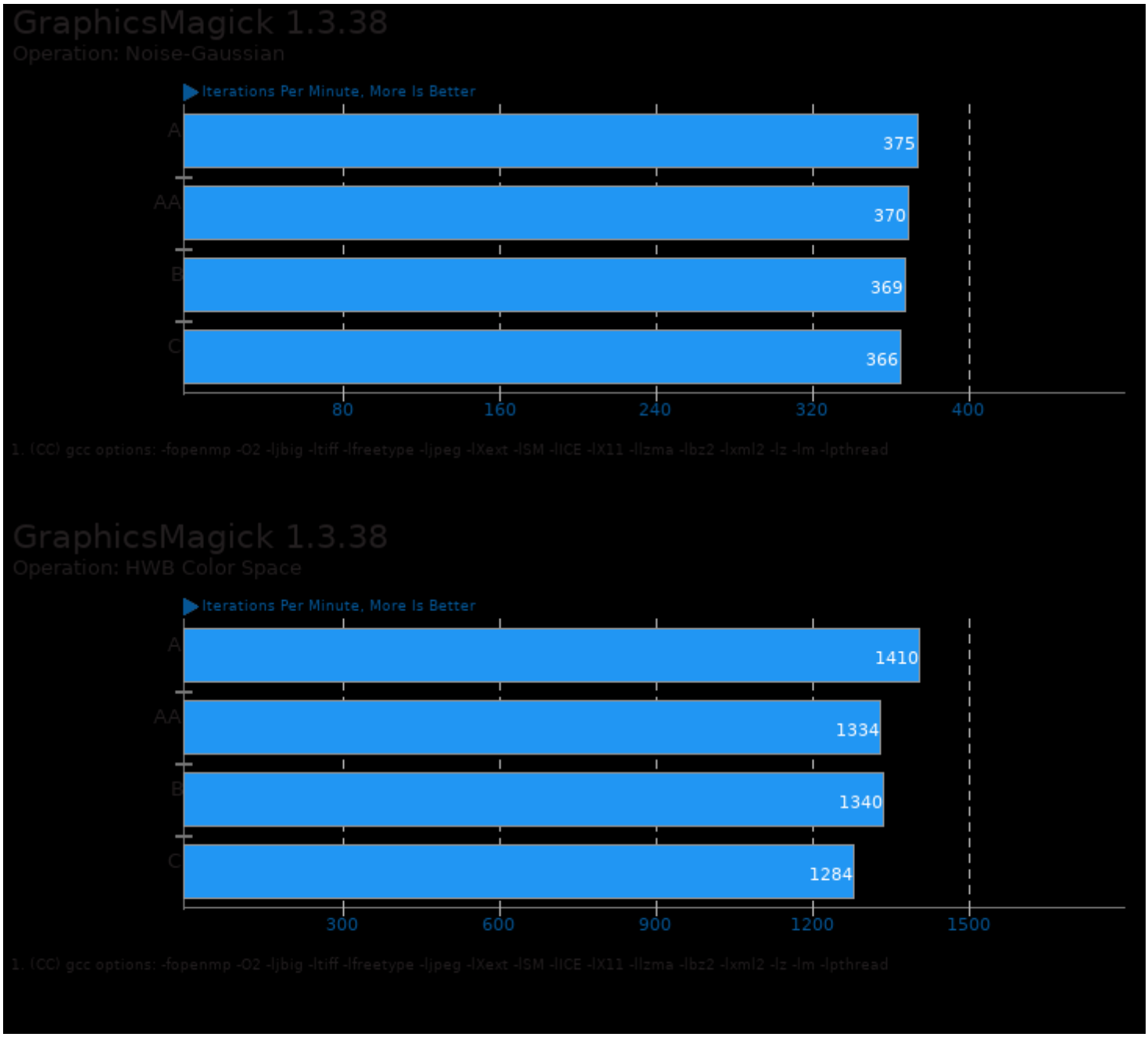
Operation: Swirl

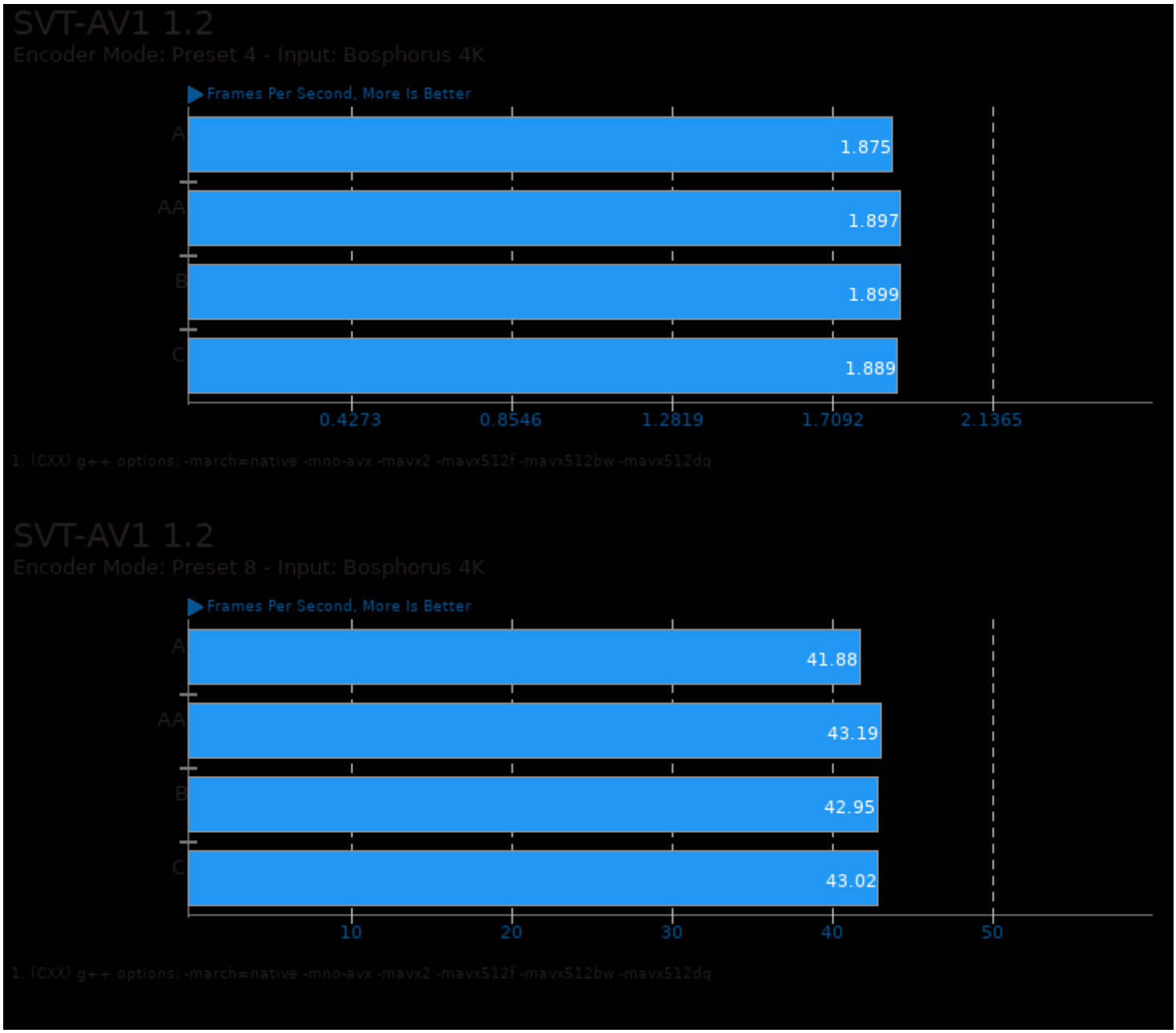


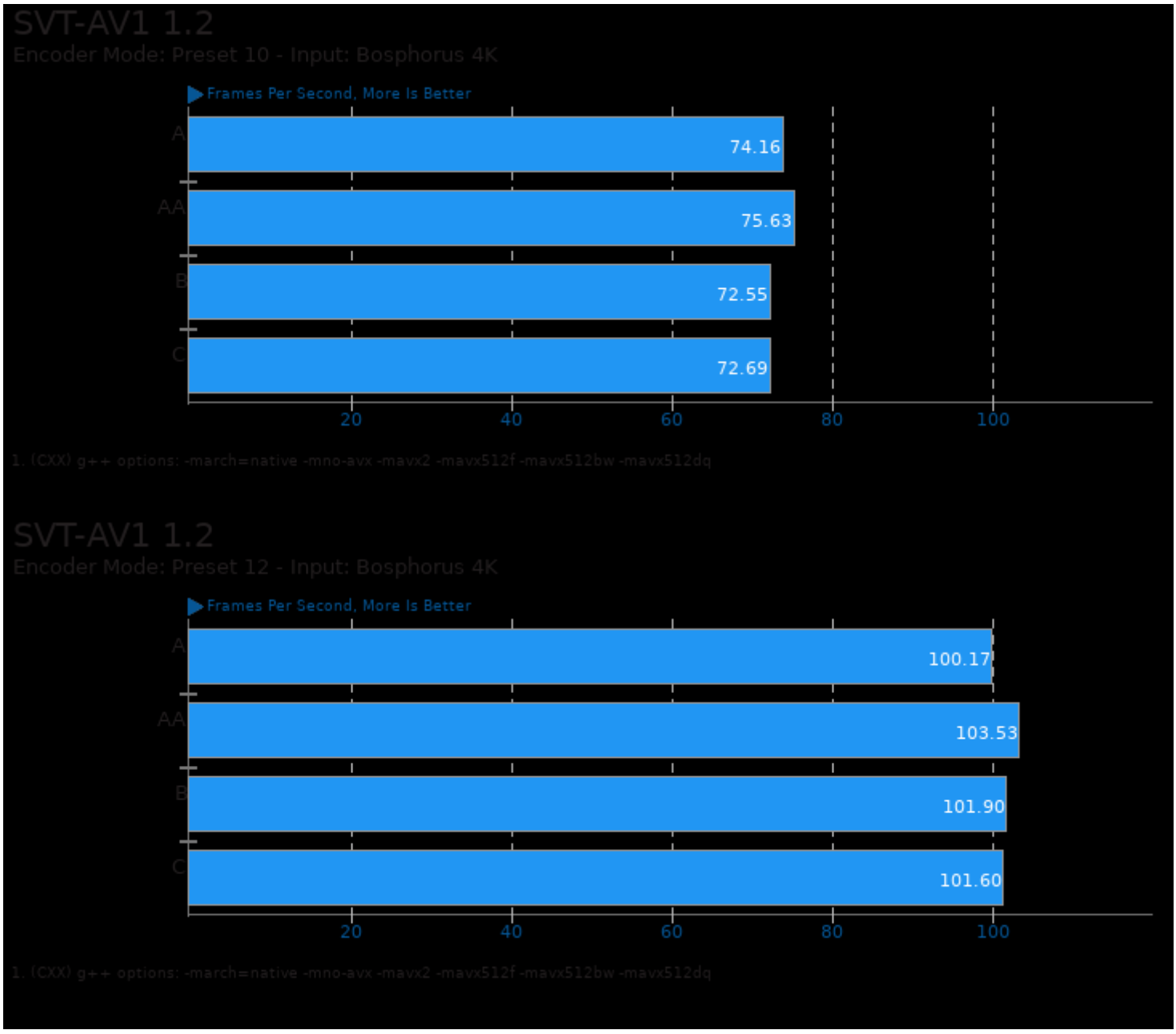
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

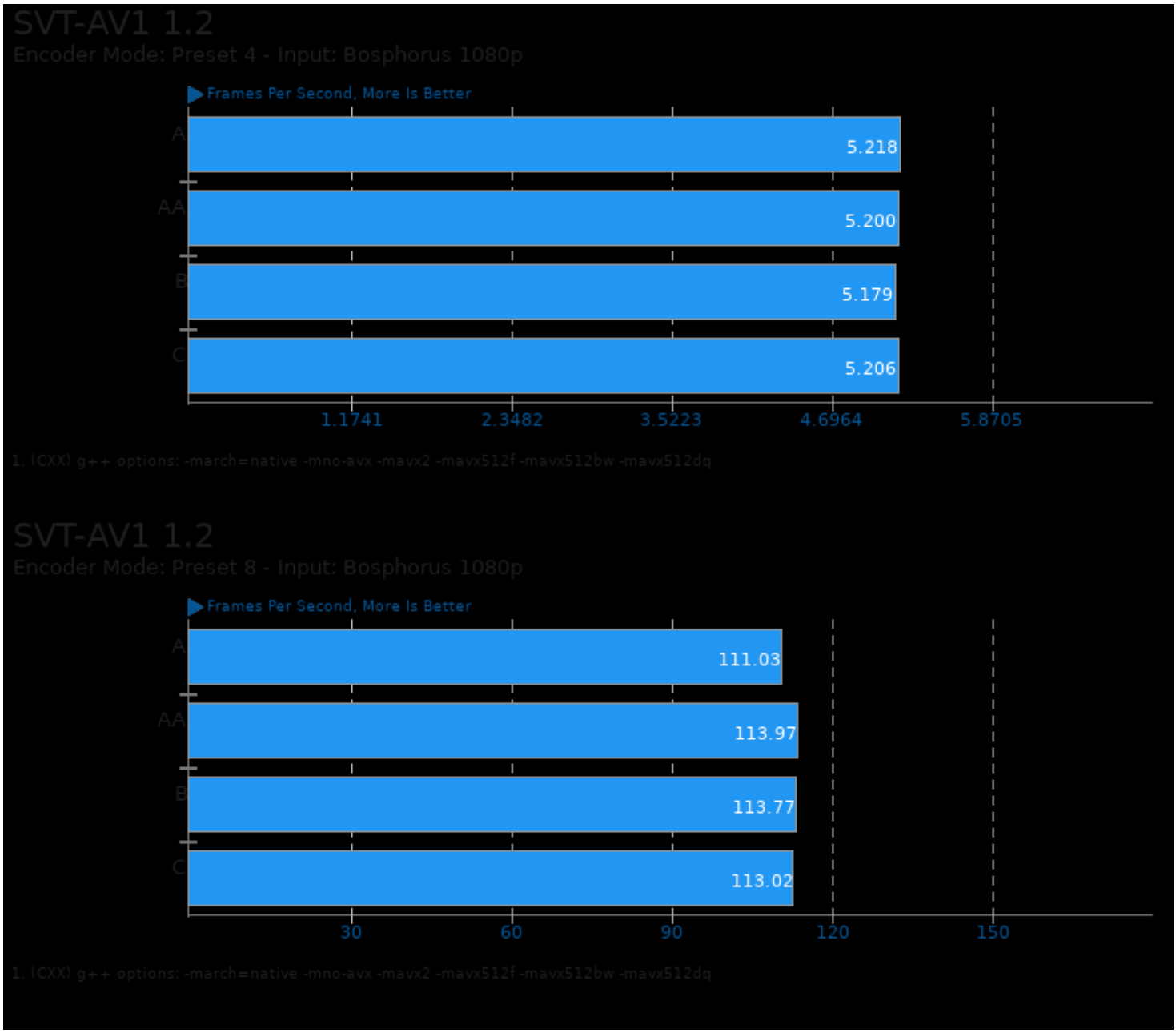

GraphicsMagick 1.3.38
Operation: Rotate
Iterations Per Minute, More Is Better
A
AA
B
C
746
717
720
697
160
320
480
640
800
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: Sharpen
Iterations Per Minute, More Is Better
A
AA
B
C
199
199
199
198
40
80
120
160
200
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread

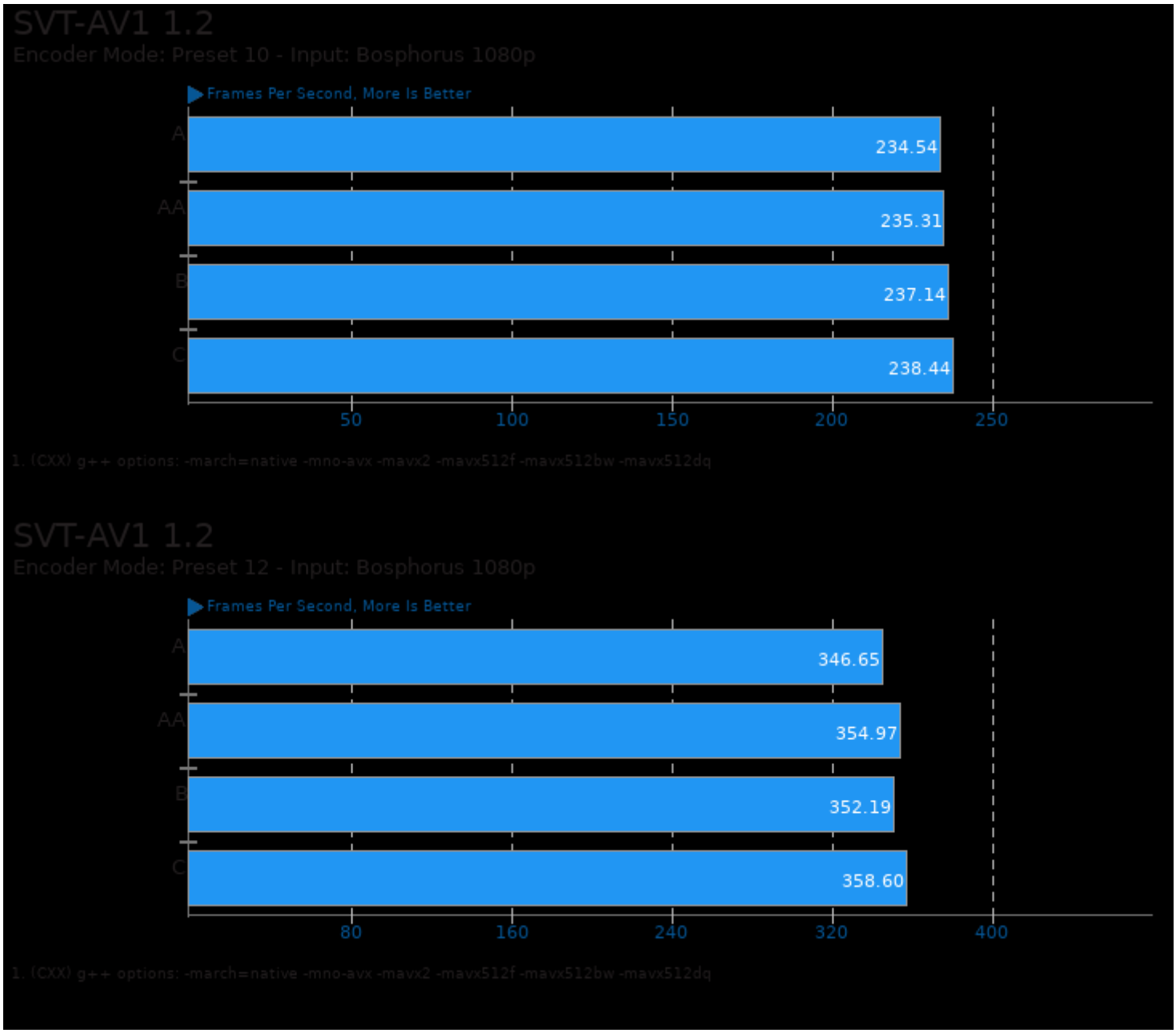

GraphicsMagick 1.3.38
Operation: Enhanced
Iterations Per Minute, More Is Better
A
AA
B
C
309
308
308
307
70
140
210
280
350
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread
GraphicsMagick 1.3.38
Operation: Resizing
Iterations Per Minute, More Is Better
A
AA
B
C
1456
1431
1425
1402
300
600
900
1200
1500
1. (CC) gcc options: -fopenmp -O2 -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
A
AA
B
C
375
370
369
366
80
160
240
320
400
1. (CC) gcc options: -fopenmp -O2 -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
A
AA
B
C
1410
1334
1340
1284
300
600
900
1200
1500
1. (CC) gcc options: -fopenmp -O2 -ljbig -ltiff -lfreetype -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lxml2 -lz -lm -lpthread


SVT-AV1 1.2
Encoder Mode: Preset 4 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
AA
B
C
1.875
1.897
1.899
1.889
0.4273
0.8546
1.2819
1.7092
2.1365
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
AA
B
C
41.88
43.19
42.95
43.02
10
20
30
40
50
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

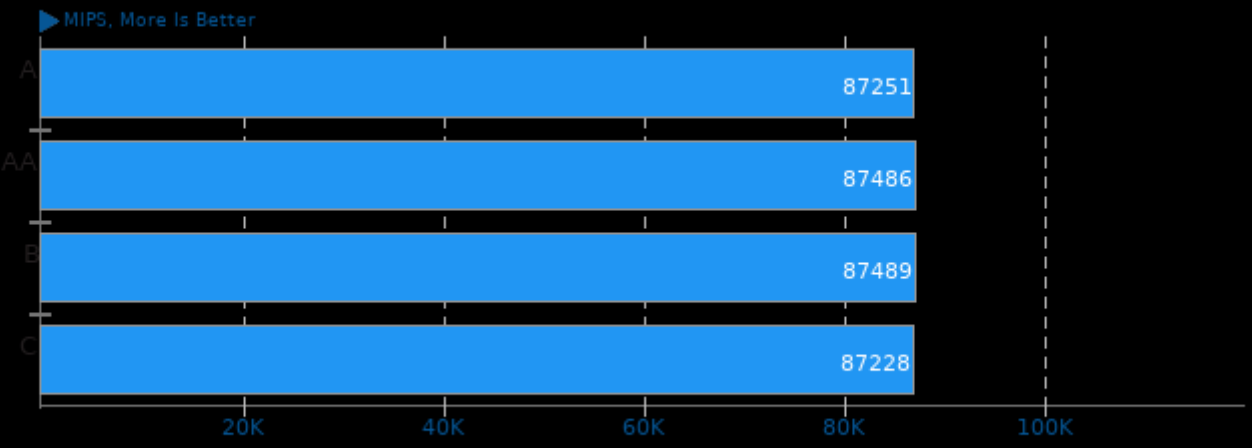

SVT-AV1 1.2
Encoder Mode: Preset 10 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
AA
B
C
74.16
75.63
72.55
72.69
20
40
60
80
100
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 12 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
AA
B
C
100.17
103.53
101.90
101.60
20
40
60
80
100
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq


SVT-AV1 1.2
Encoder Mode: Preset 4 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
AA
B
C
5.218
5.200
5.179
5.206
1.1741
2.3482
3.5223
4.6964
5.8705
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
AA
B
C
111.03
113.97
113.77
113.02
30
60
90
120
150
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq


SVT-AV1 1.2
Encoder Mode: Preset 10 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
AA
B
C
234.54
235.31
237.14
238.44
50
100
150
200
250
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 12 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
AA
B
C
346.65
354.97
352.19
358.60
80
160
240
320
400
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

7-Zip Compression 22.01

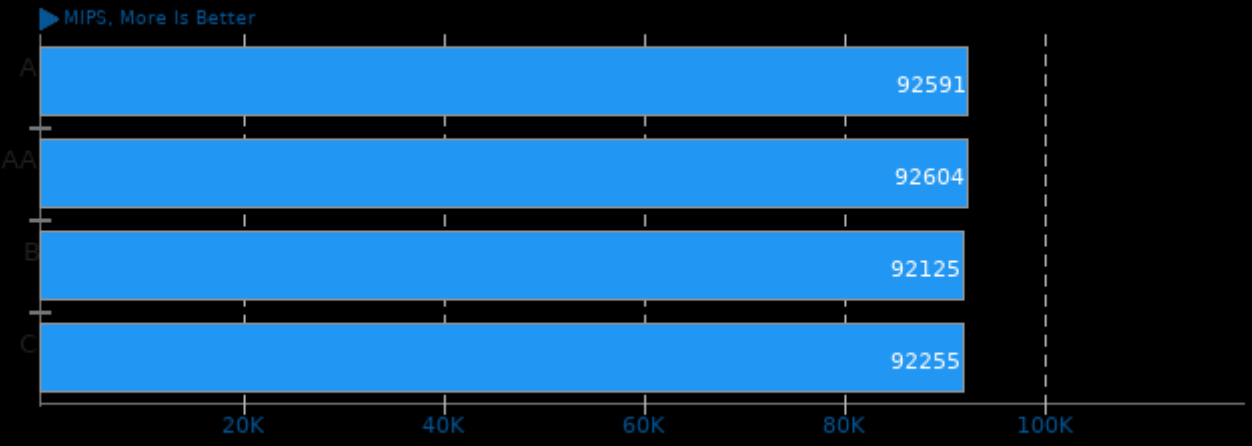
Test: Compression Rating



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

7-Zip Compression 22.01

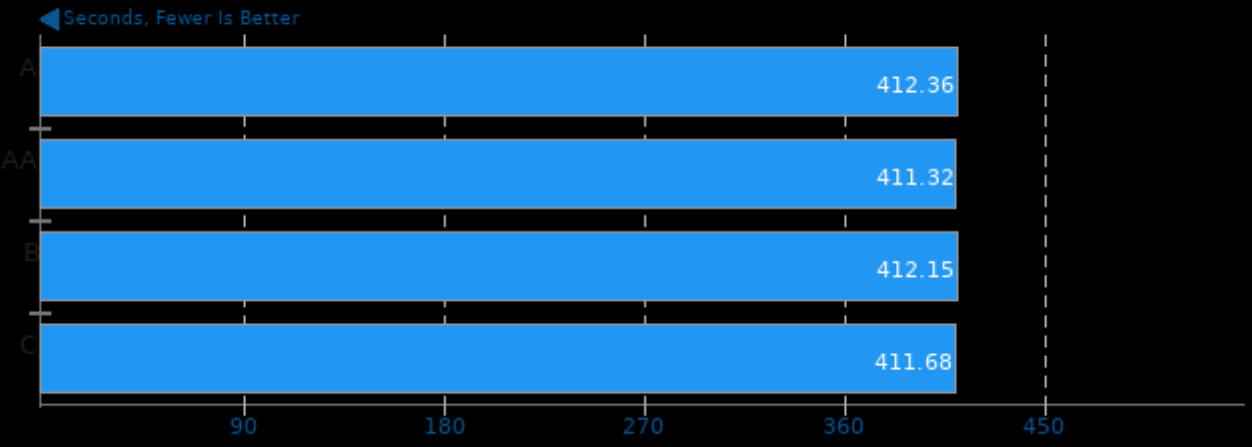
Test: Decompression Rating



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

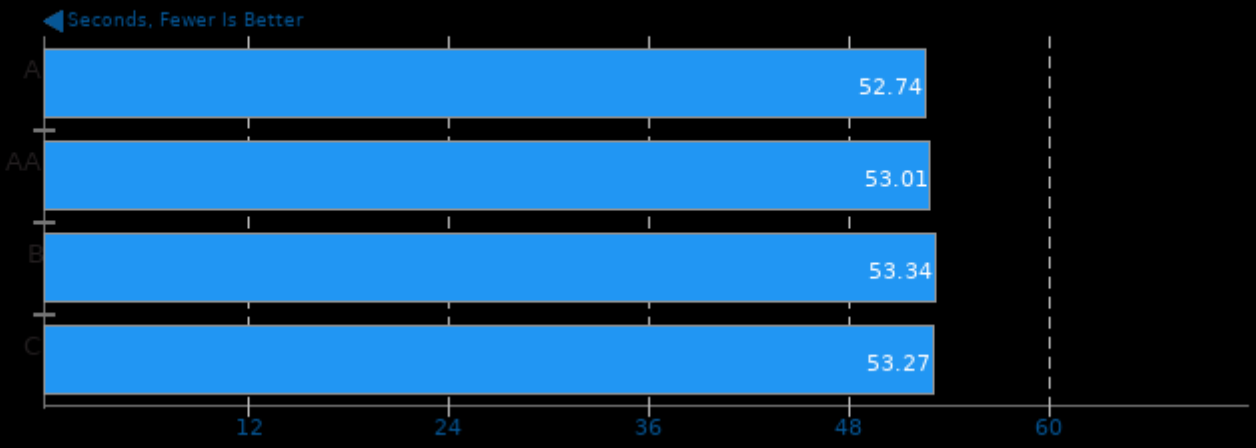
Timed Node.js Compilation 18.8

Time To Compile



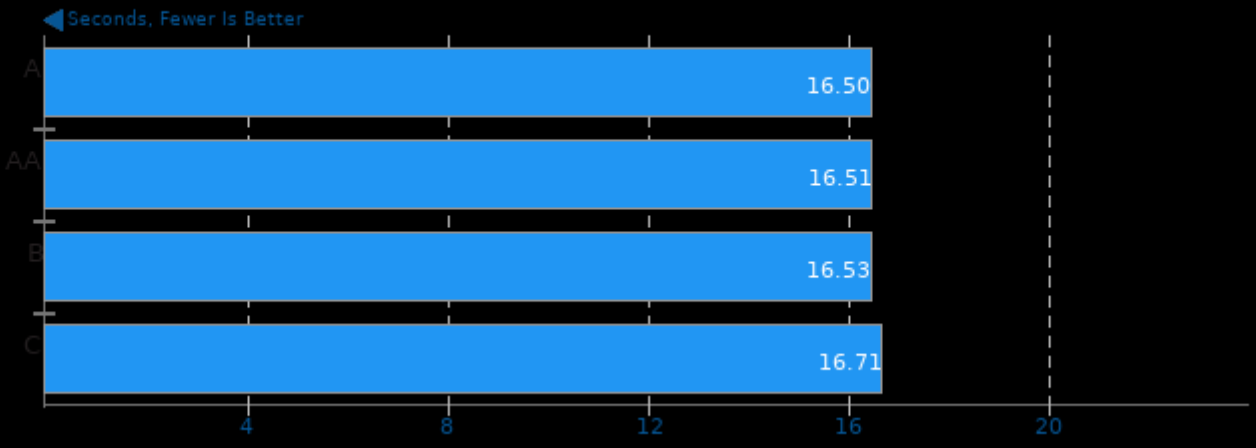
Timed PHP Compilation 8.1.9

Time To Compile



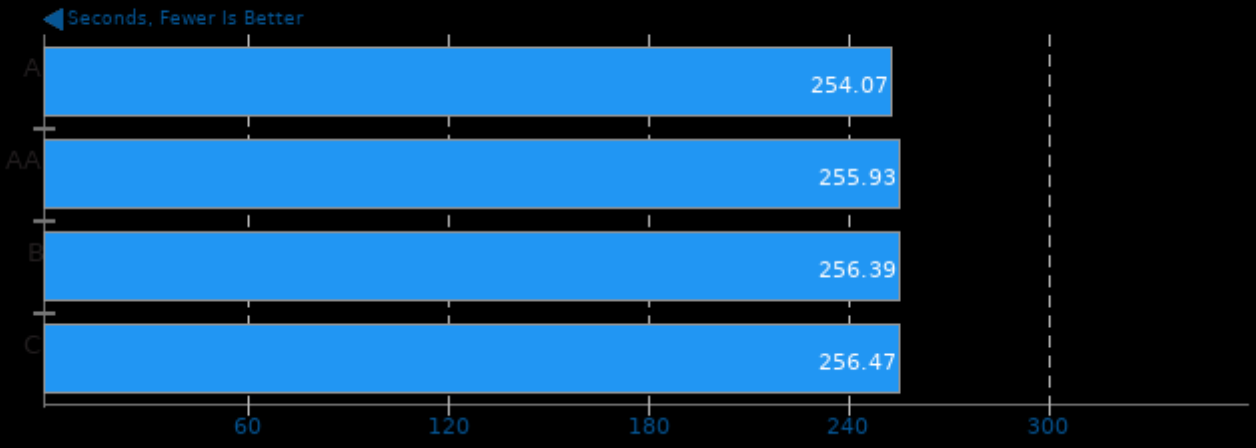
Timed CPython Compilation 3.10.6

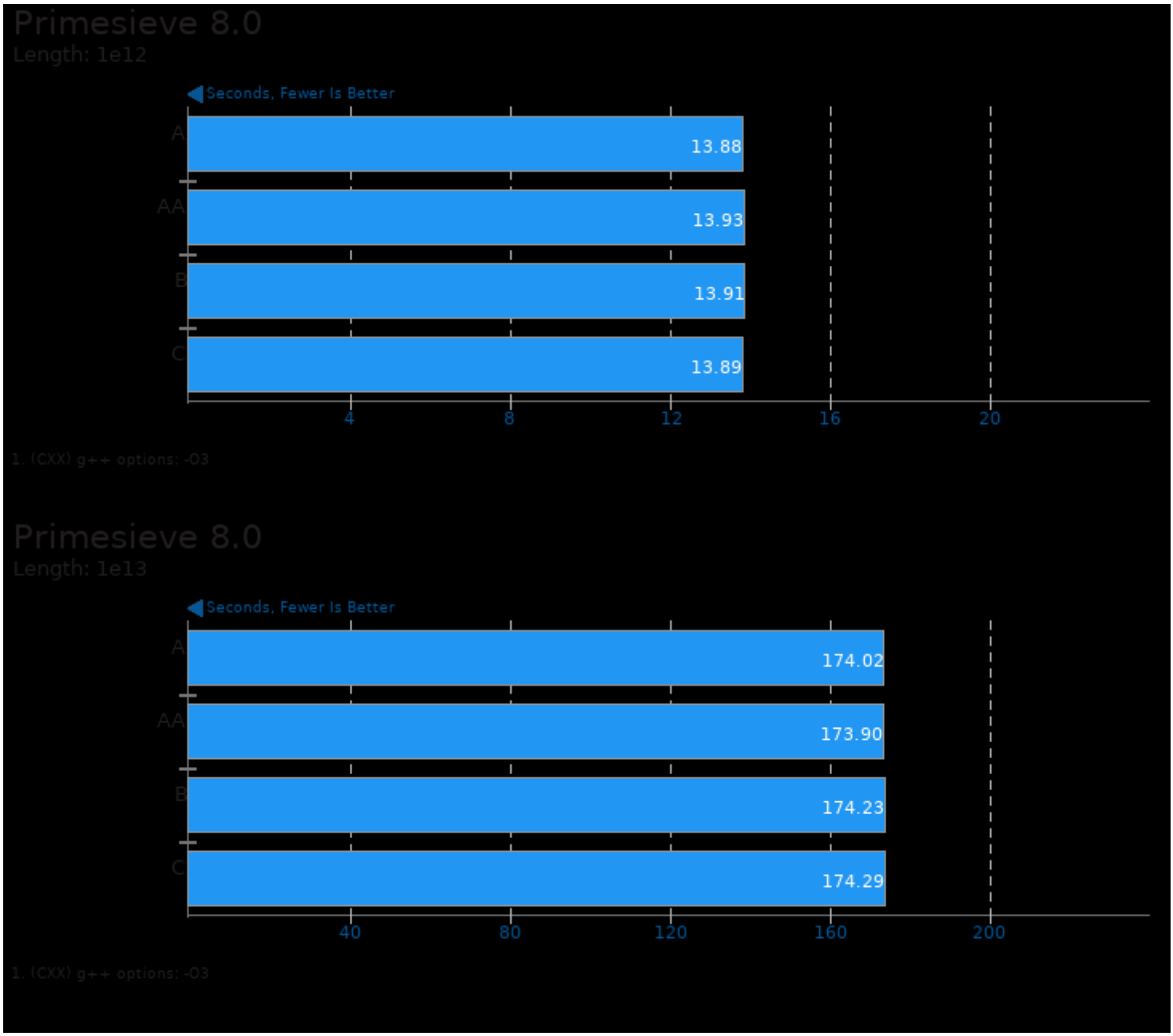
Build Configuration: Default

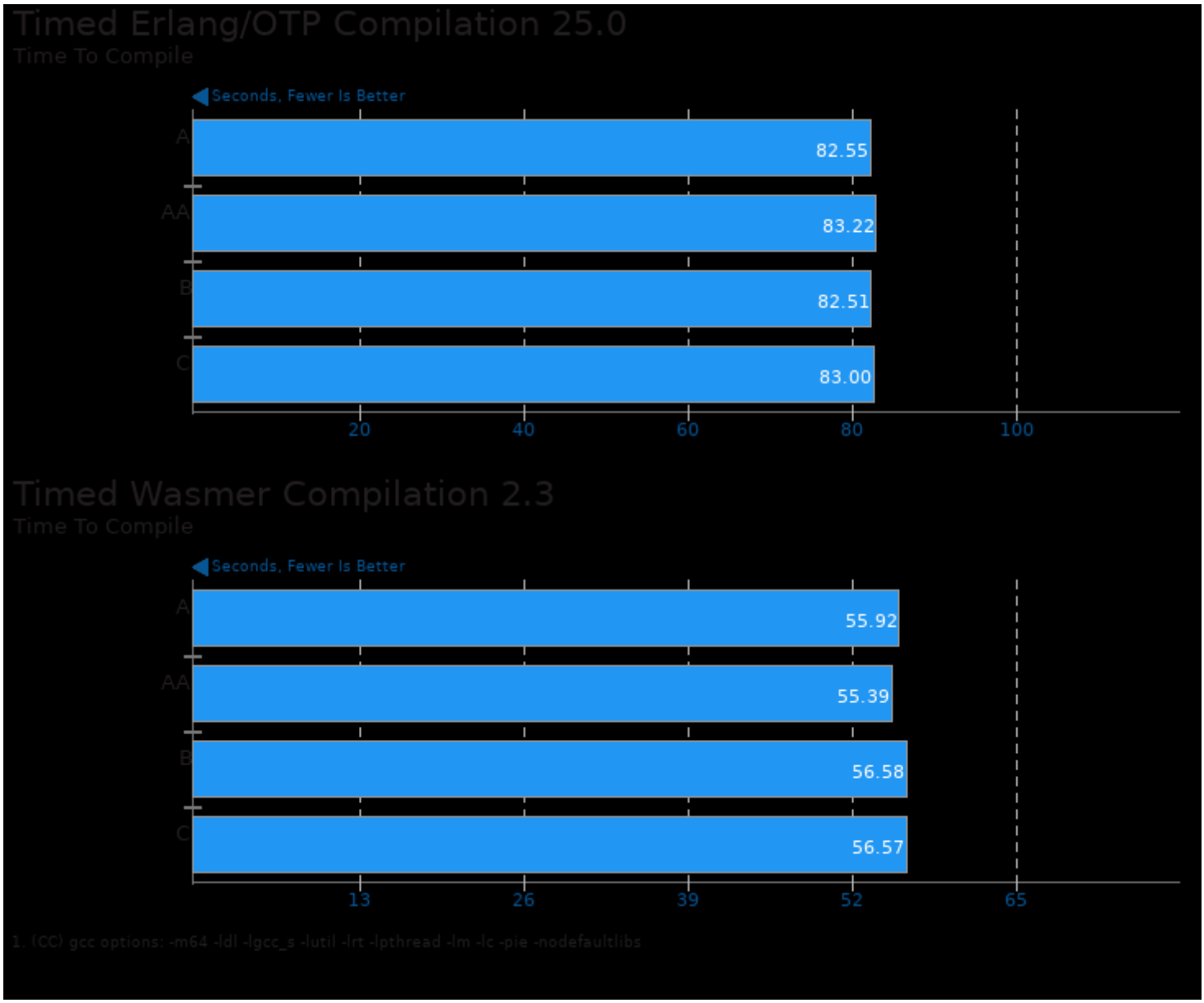


Timed CPython Compilation 3.10.6

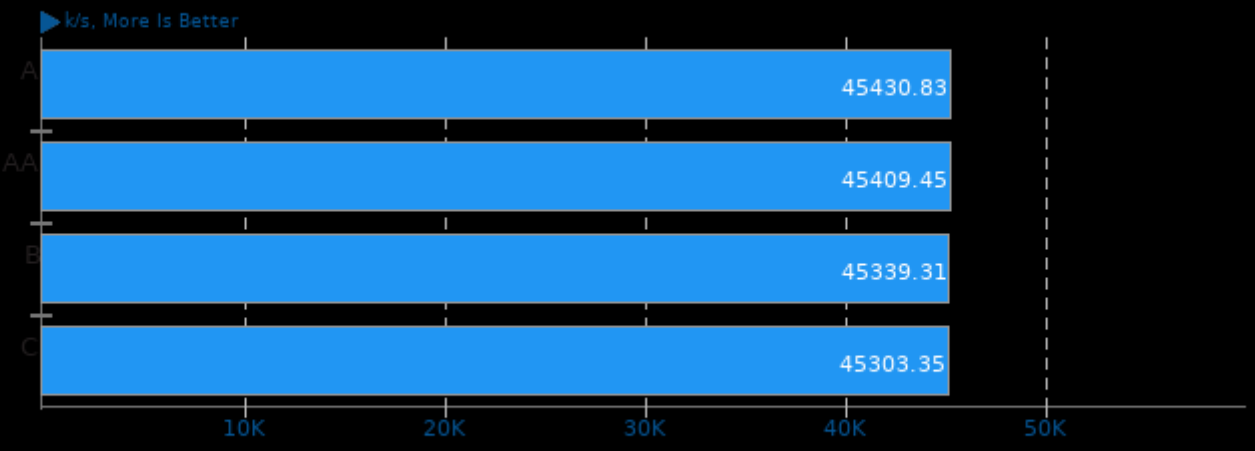
Build Configuration: Released Build, PGO + LTO Optimized




Primesieve 8.0
Length: 1e12
Seconds, Fewer Is Better
A
AA
B
C
13.88
13.93
13.91
13.89
4
8
12
16
20
1. (CXX) g++ options: -O3
Primesieve 8.0
Length: 1e13
Seconds, Fewer Is Better
A
AA
B
C
174.02
173.90
174.23
174.29
40
80
120
160
200
1. (CXX) g++ options: -O3

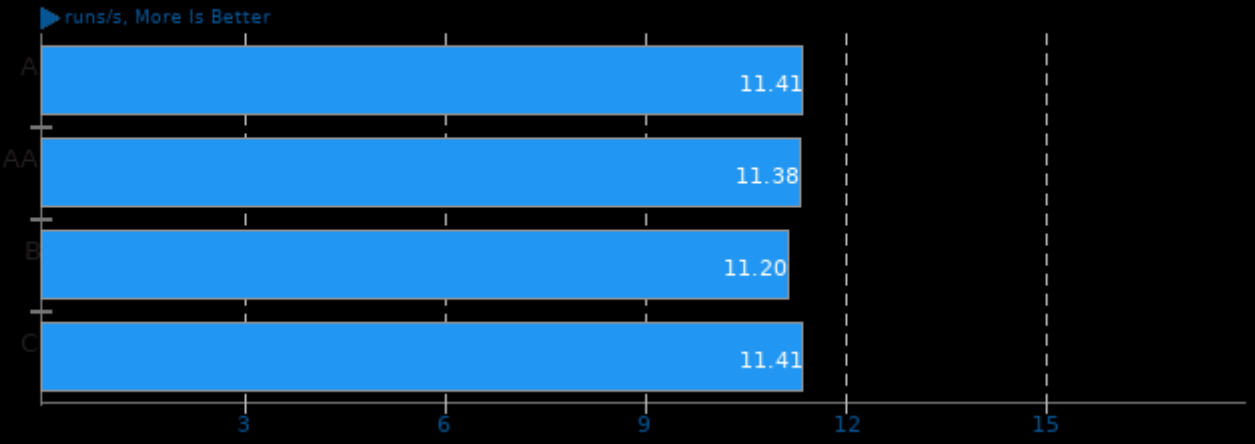

Timed Erlang/OTP Compilation 25.0
Time To Compile
Seconds, Fewer Is Better
A
AA
B
C
82.55
83.22
82.51
83.00
20
40
60
80
100
Timed Wasmer Compilation 2.3
Time To Compile
Seconds, Fewer Is Better
A
AA
B
C
55.92
55.39
56.58
56.57
13
26
39
52
65
1. (CC) gcc options: -m64 -ldl -lgcc_s -lutil -lrt -lpthread -lm -lc -pie -nodefaultlibs

Aircrack-ng 1.7



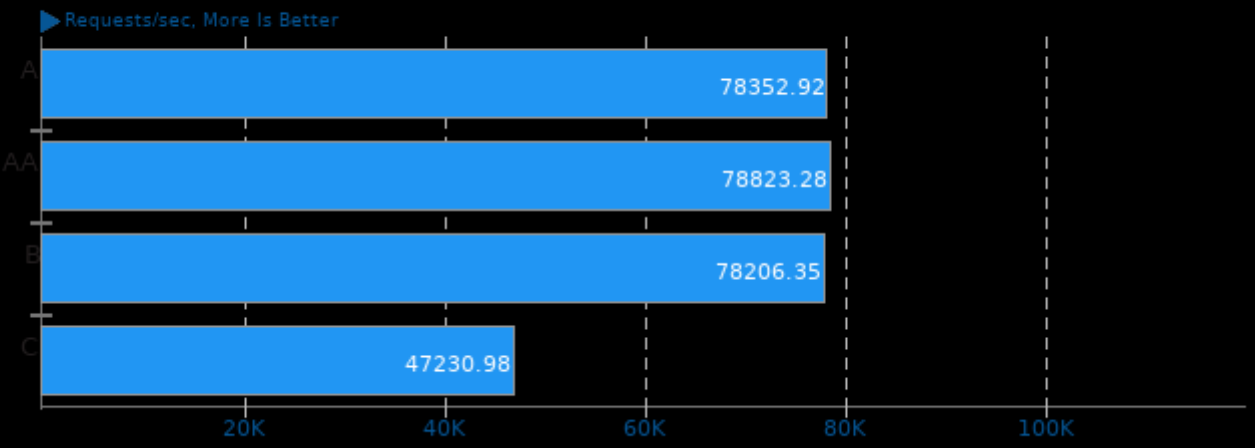
1. (CXX) g++ options: -std=gnu++17 -O3 -fvisibility=hidden -fcommon -rdynamic -lnl-3 -lnl-genl-3 -lpcre -lsqlite3 -lpthread -lz -lssl -lcrypto -lhwloc -ldl -l

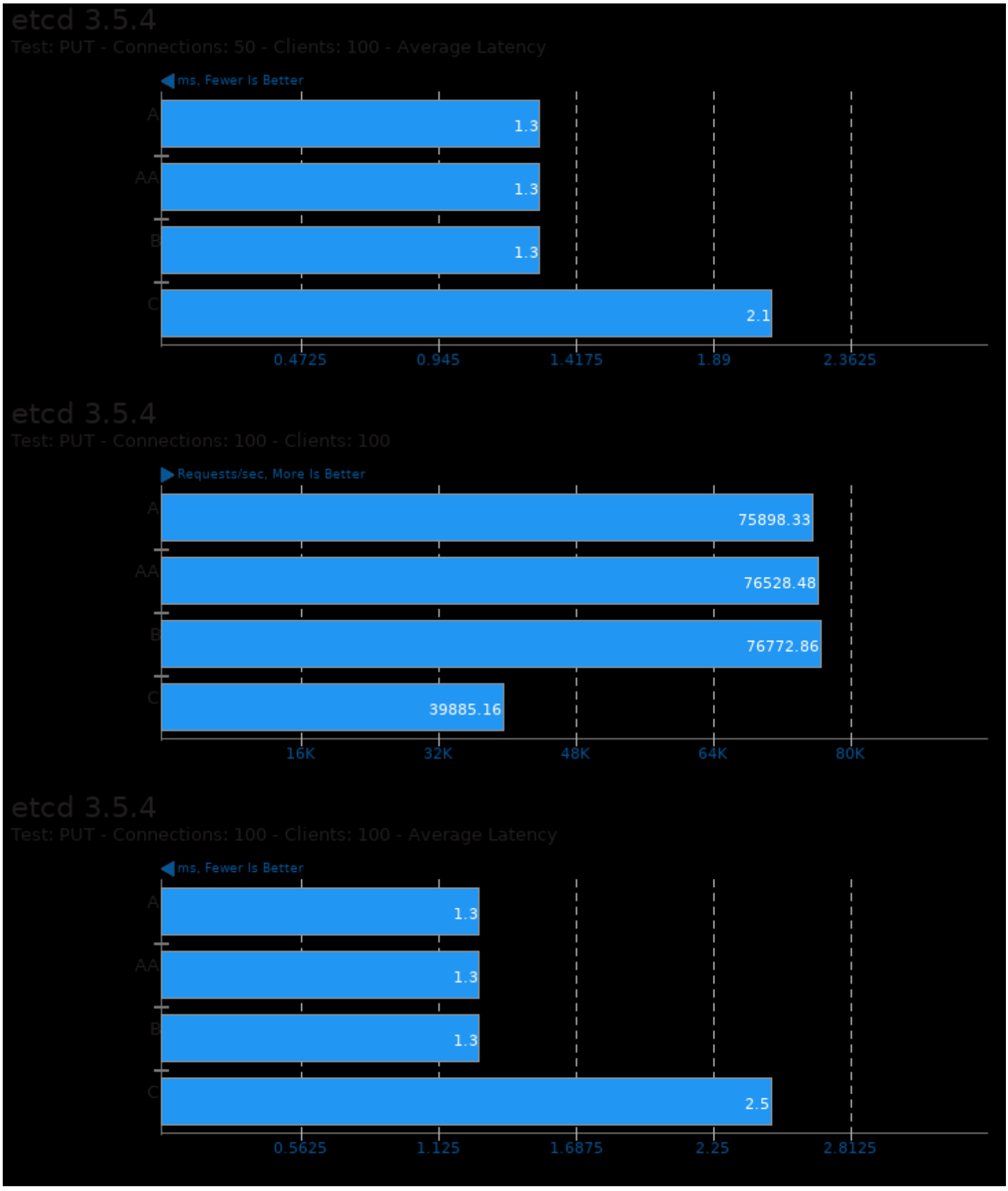
Node.js V8 Web Tooling Benchmark

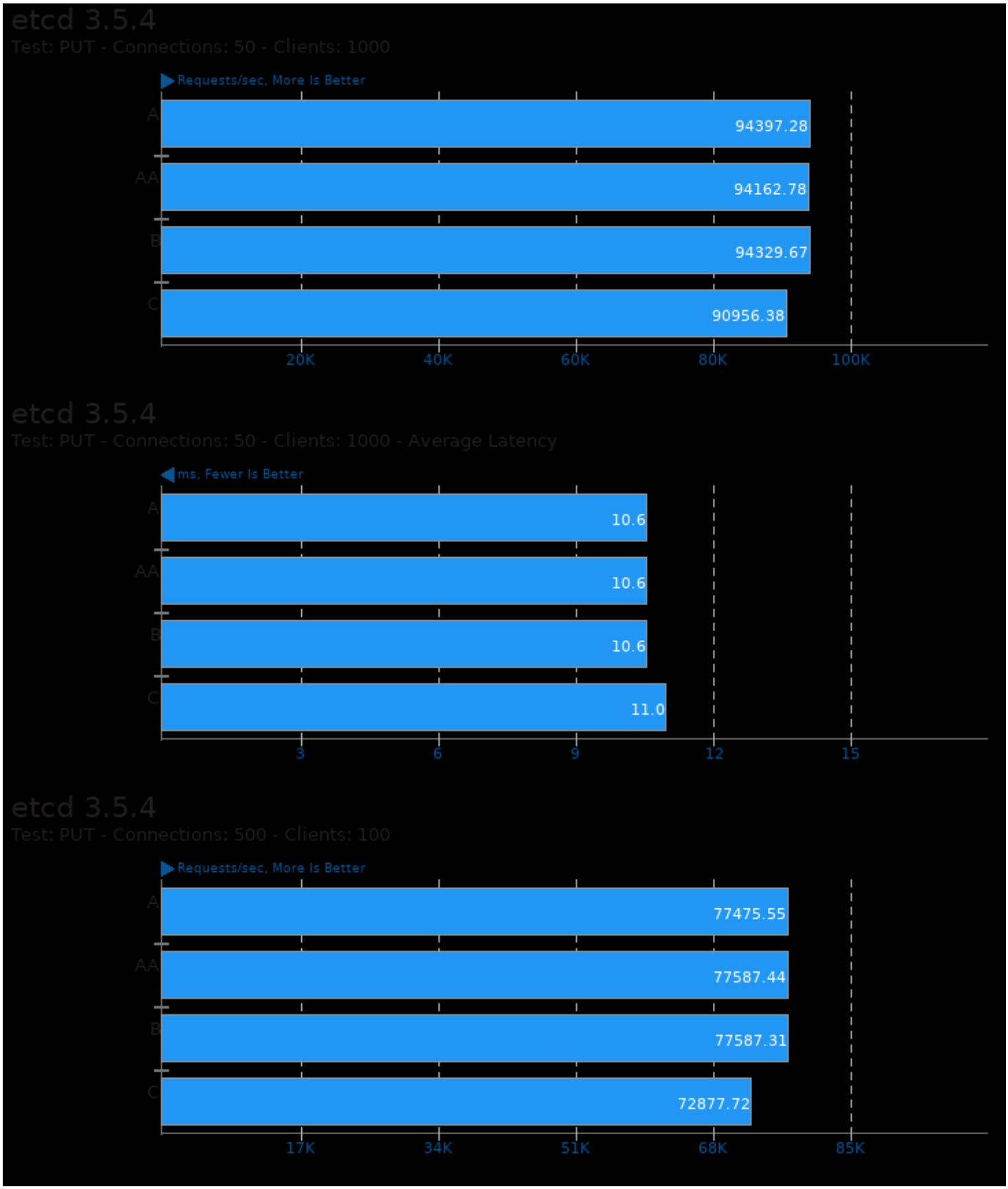


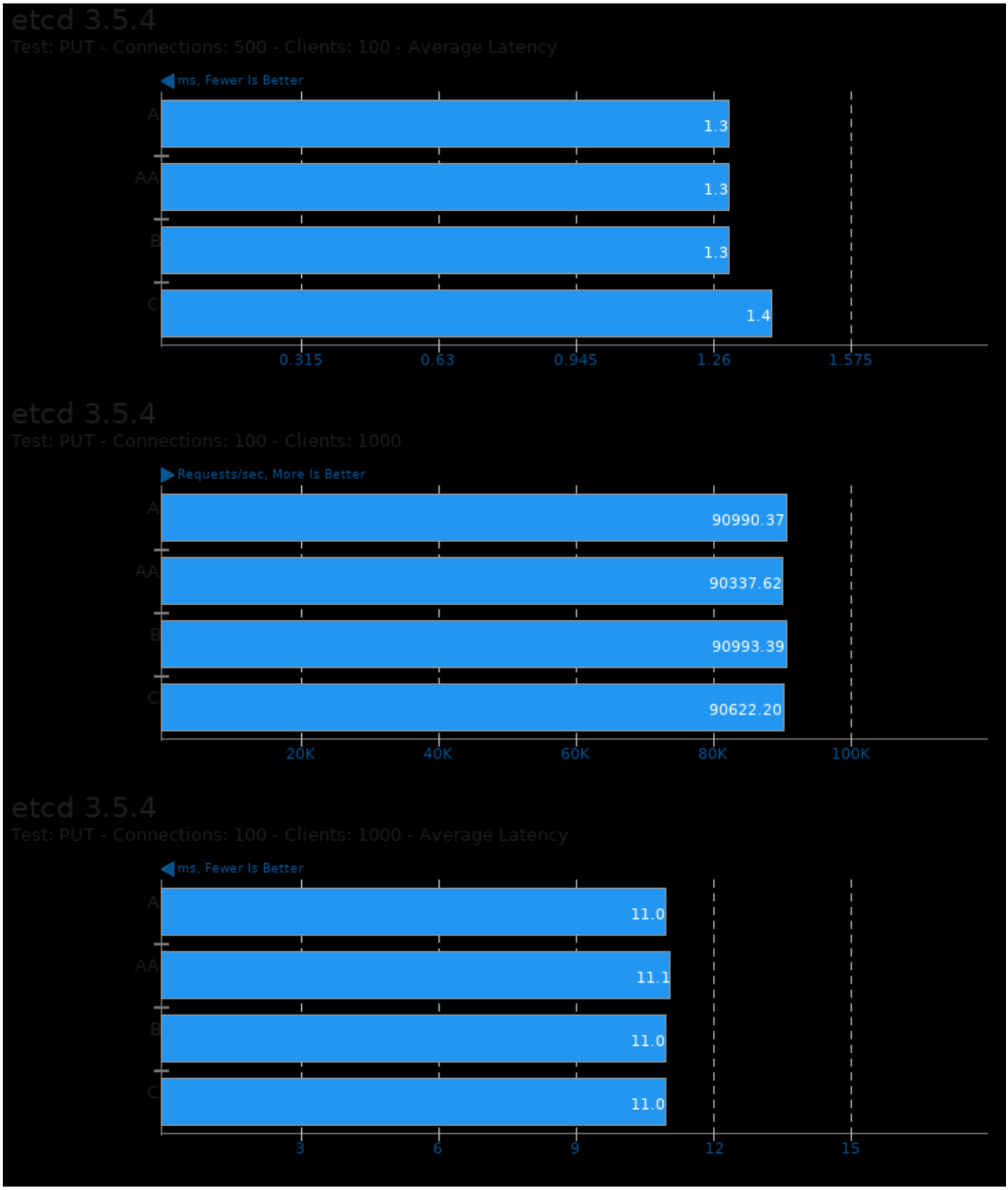
etcd 3.5.4

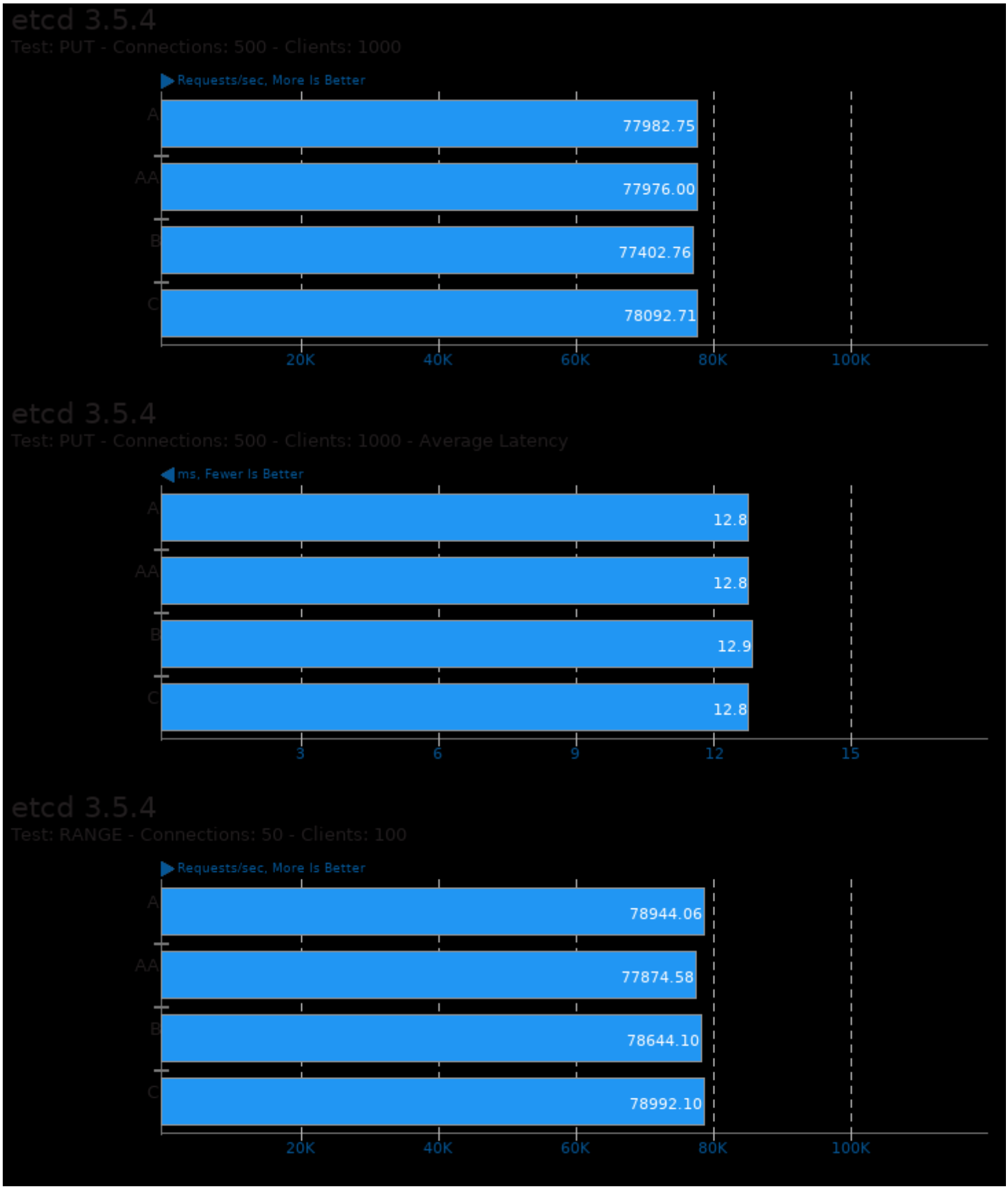
Test: PUT - Connections: 50 - Clients: 100

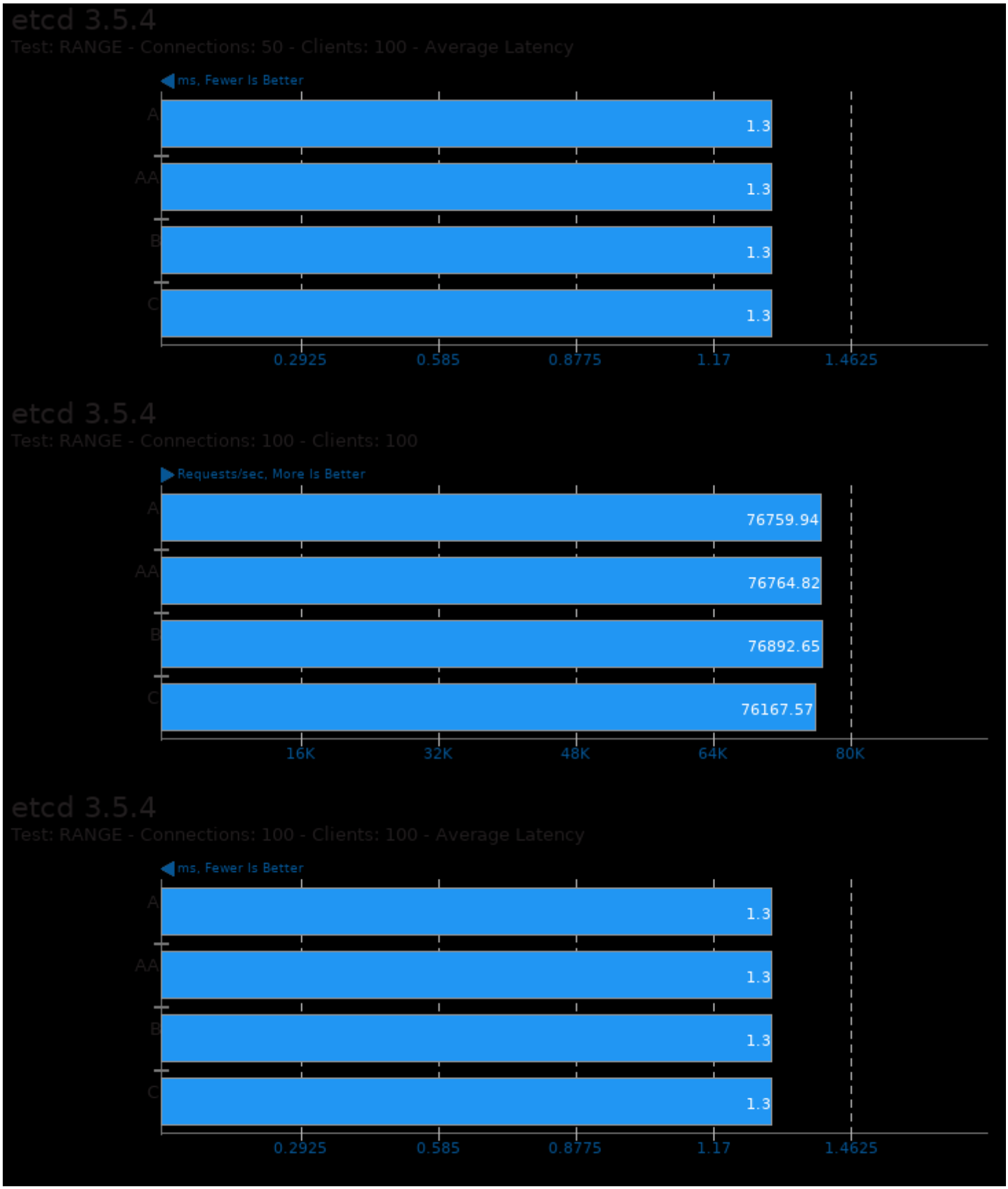


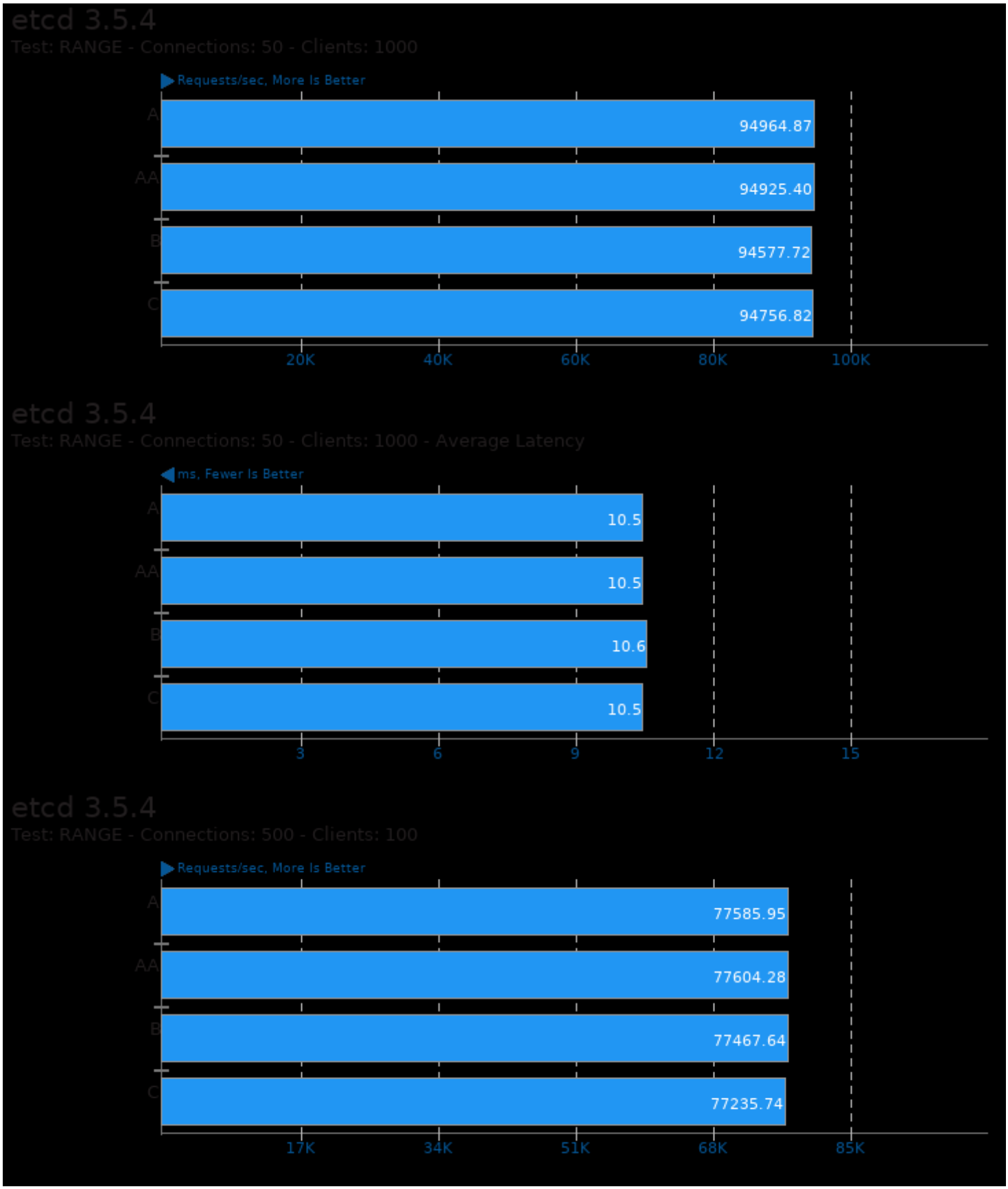

etcd 3.5.4
Test: PUT - Connections: 50 - Clients: 100 - Average Latency
ms, Fewer Is Better
A
AA
B
C
1.3
1.3
1.3
2.1
0.4725
0.945
1.4175
1.89
2.3625
etcd 3.5.4
Test: PUT - Connections: 100 - Clients: 100
Requests/sec, More Is Better
A
AA
B
C
75898.33
76528.48
76772.86
39885.16
16K
32K
48K
64K
80K
etcd 3.5.4
Test: PUT - Connections: 100 - Clients: 100 - Average Latency
ms, Fewer Is Better
A
AA
B
C
1.3
1.3
1.3
2.5
0.5625
1.125
1.6875
2.25
2.8125

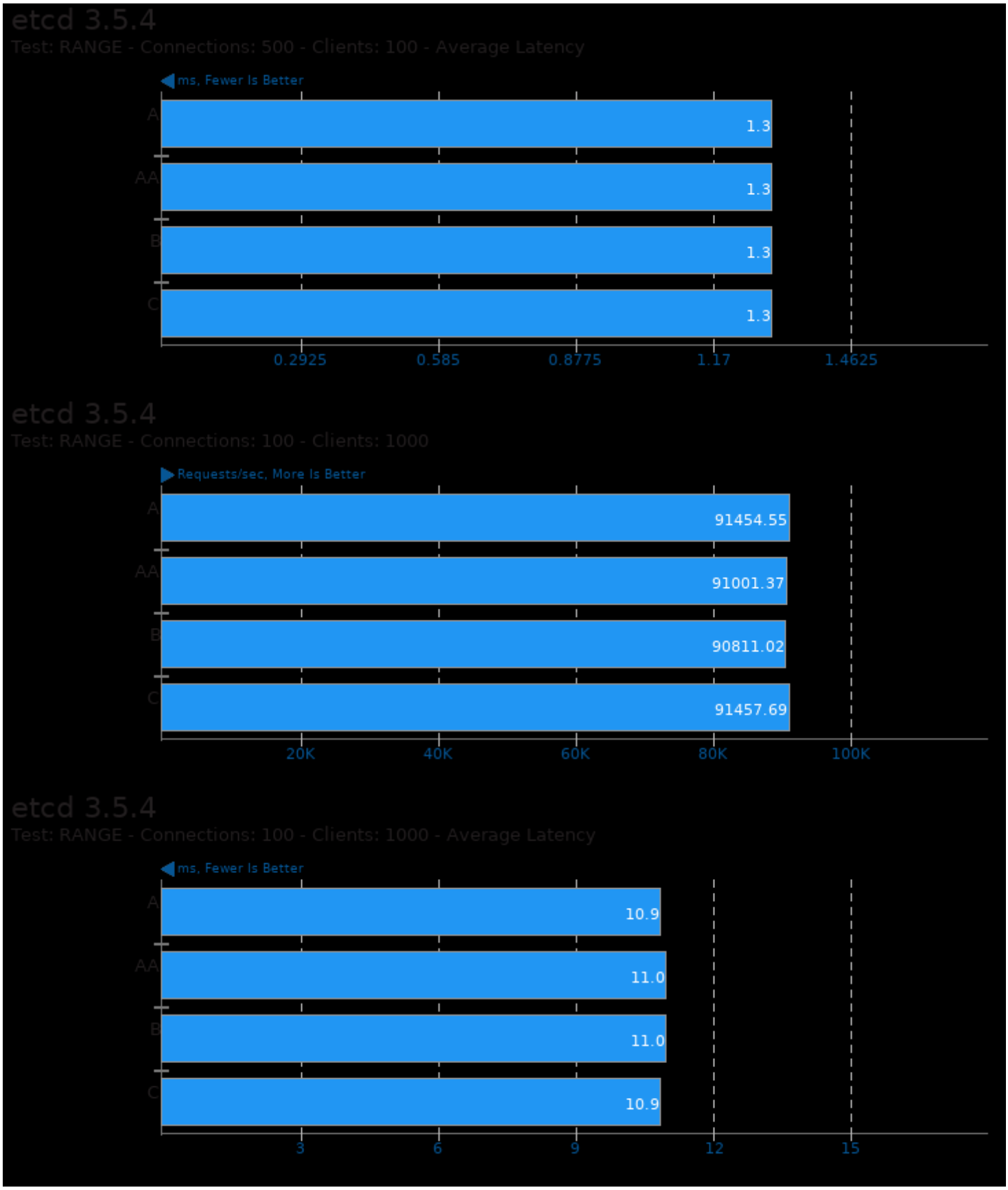

etcd 3.5.4
Test: PUT - Connections: 50 - Clients: 1000
Requests/sec, More Is Better
A
AA
B
C
94397.28
94162.78
94329.67
90956.38
20K
40K
60K
80K
100K
etcd 3.5.4
Test: PUT - Connections: 50 - Clients: 1000 - Average Latency
ms, Fewer Is Better
A
AA
B
C
10.6
10.6
10.6
11.0
3
6
9
12
15
etcd 3.5.4
Test: PUT - Connections: 500 - Clients: 100
Requests/sec, More Is Better
A
AA
B
C
77475.55
77587.44
77587.31
72877.72
17K
34K
51K
68K
85K


etcd 3.5.4
Test: PUT - Connections: 500 - Clients: 100 - Average Latency
ms, Fewer Is Better
A
AA
B
C
1.3
1.3
1.3
1.4
0.315
0.63
0.945
1.26
1.575
etcd 3.5.4
Test: PUT - Connections: 100 - Clients: 1000
Requests/sec, More Is Better
A
AA
B
C
90990.37
90337.62
90993.39
90622.20
20K
40K
60K
80K
100K
etcd 3.5.4
Test: PUT - Connections: 100 - Clients: 1000 - Average Latency
ms, Fewer Is Better
A
AA
B
C
11.0
11.1
11.0
11.0
3
6
9
12
15


etcd 3.5.4
Test: PUT - Connections: 500 - Clients: 1000
Requests/sec, More Is Better
A
77982.75
AA
77976.00
B
77402.76
C
78092.71
20K
40K
60K
80K
100K
etcd 3.5.4
Test: PUT - Connections: 500 - Clients: 1000 - Average Latency
ms, Fewer Is Better
A
12.8
AA
12.8
B
12.9
C
12.8
3
6
9
12
15
etcd 3.5.4
Test: RANGE - Connections: 50 - Clients: 100
Requests/sec, More Is Better
A
78944.06
AA
77874.58
B
78644.10
C
78992.10
20K
40K
60K
80K
100K

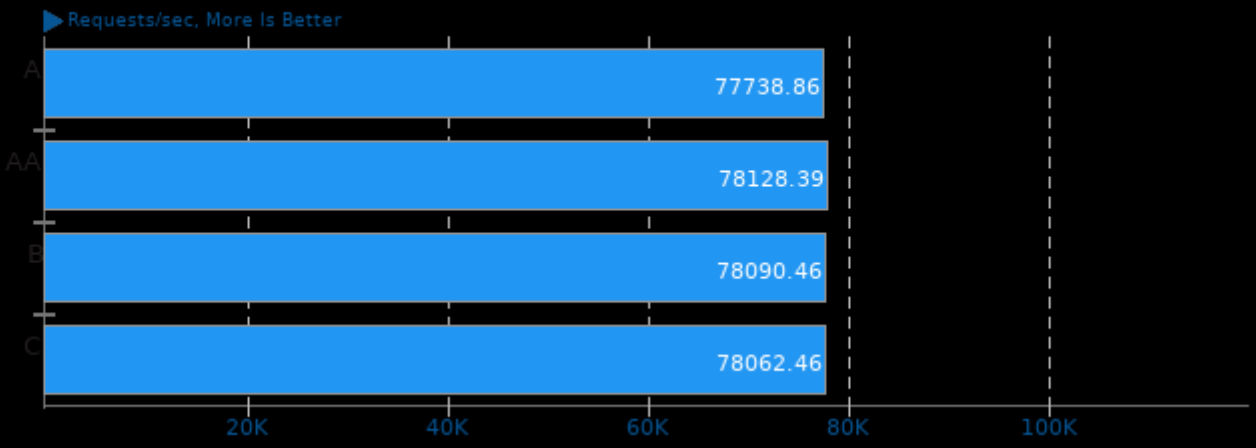

etcd 3.5.4
Test: RANGE - Connections: 50 - Clients: 100 - Average Latency
ms, Fewer Is Better
A
AA
B
C
1.3
1.3
1.3
1.3
0.2925
0.585
0.8775
1.17
1.4625
etcd 3.5.4
Test: RANGE - Connections: 100 - Clients: 100
Requests/sec, More Is Better
A
AA
B
C
76759.94
76764.82
76892.65
76167.57
16K
32K
48K
64K
80K
etcd 3.5.4
Test: RANGE - Connections: 100 - Clients: 100 - Average Latency
ms, Fewer Is Better
A
AA
B
C
1.3
1.3
1.3
1.3
0.2925
0.585
0.8775
1.17
1.4625


etcd 3.5.4
Test: RANGE - Connections: 50 - Clients: 1000
Requests/sec, More Is Better
A
AA
B
C
94964.87
94925.40
94577.72
94756.82
20K
40K
60K
80K
100K
etcd 3.5.4
Test: RANGE - Connections: 50 - Clients: 1000 - Average Latency
ms, Fewer Is Better
A
AA
B
C
10.5
10.5
10.6
10.5
3
6
9
12
15
etcd 3.5.4
Test: RANGE - Connections: 500 - Clients: 100
Requests/sec, More Is Better
A
AA
B
C
77585.95
77604.28
77467.64
77235.74
17K
34K
51K
68K
85K


etcd 3.5.4
Test: RANGE - Connections: 500 - Clients: 100 - Average Latency
ms, Fewer Is Better
A
AA
B
C
1.3
1.3
1.3
1.3
0.2925
0.585
0.8775
1.17
1.4625
etcd 3.5.4
Test: RANGE - Connections: 100 - Clients: 1000
Requests/sec, More Is Better
A
AA
B
C
91454.55
91001.37
90811.02
91457.69
20K
40K
60K
80K
100K
etcd 3.5.4
Test: RANGE - Connections: 100 - Clients: 1000 - Average Latency
ms, Fewer Is Better
A
AA
B
C
10.9
11.0
11.0
10.9
3
6
9
12
15

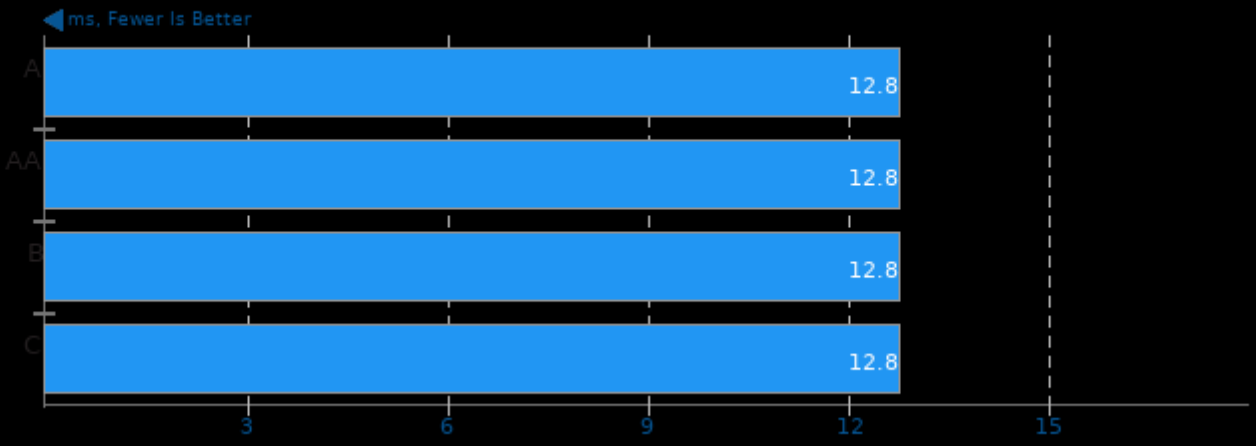
etcd 3.5.4

Test: RANGE - Connections: 500 - Clients: 1000



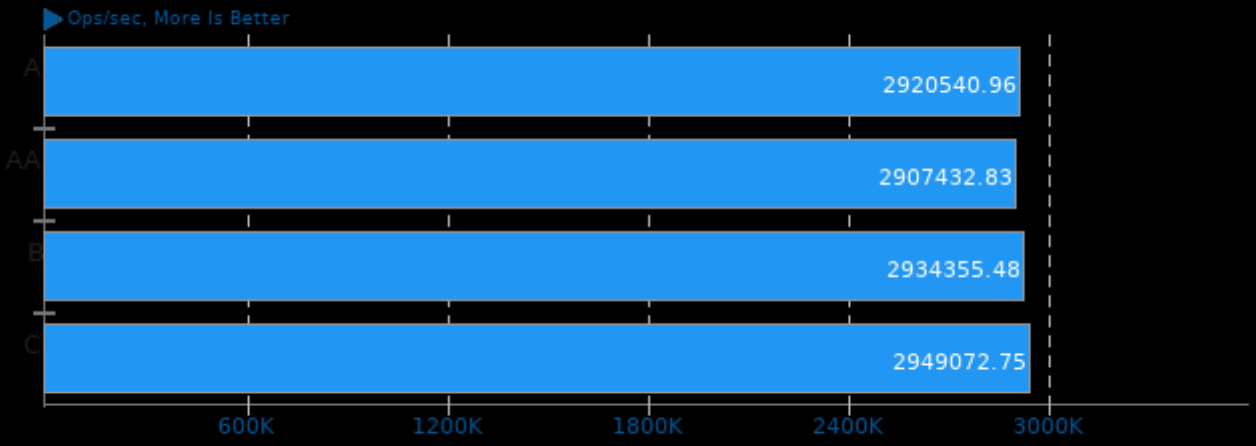
etcd 3.5.4

Test: RANGE - Connections: 500 - Clients: 1000 - Average Latency

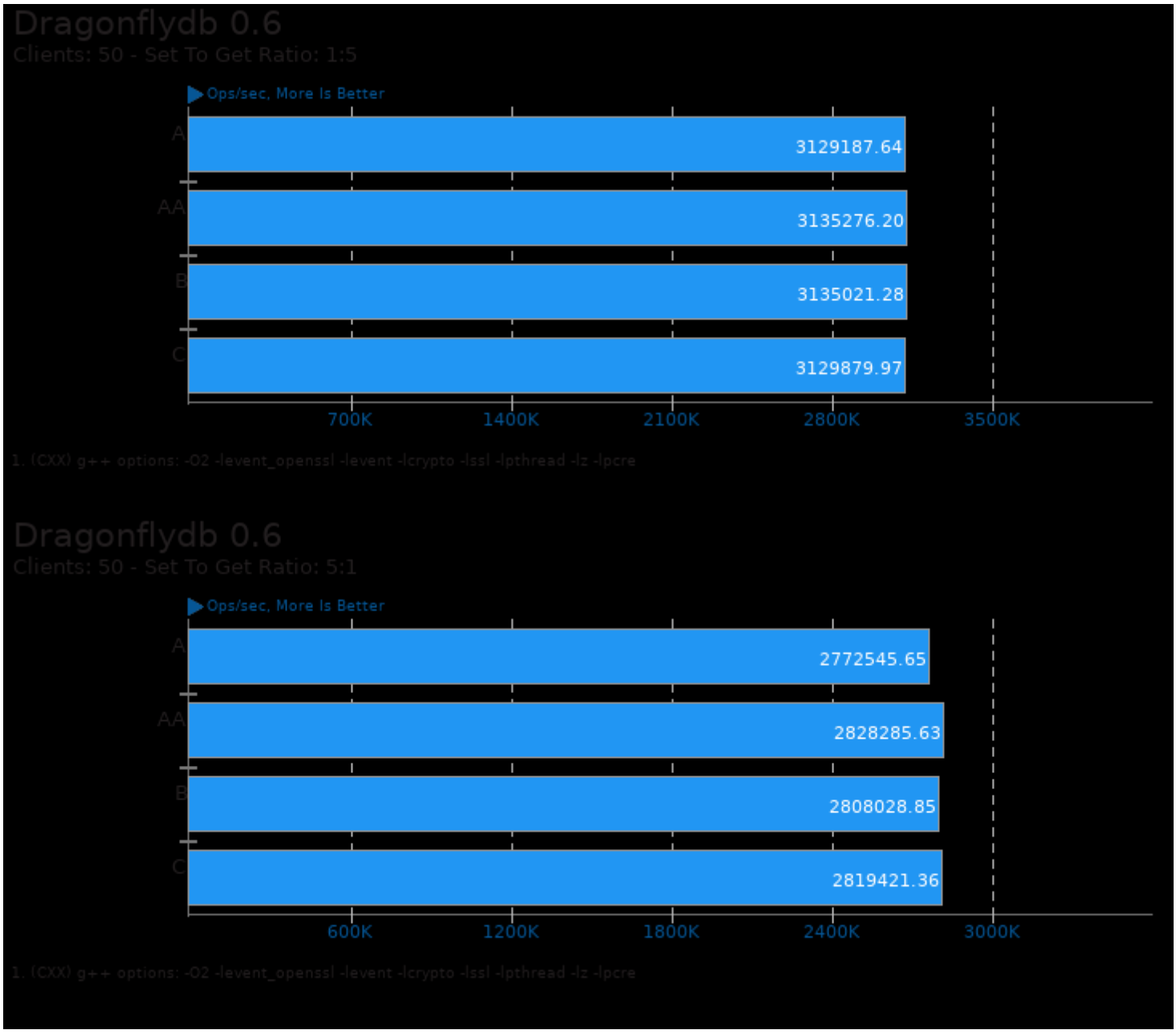


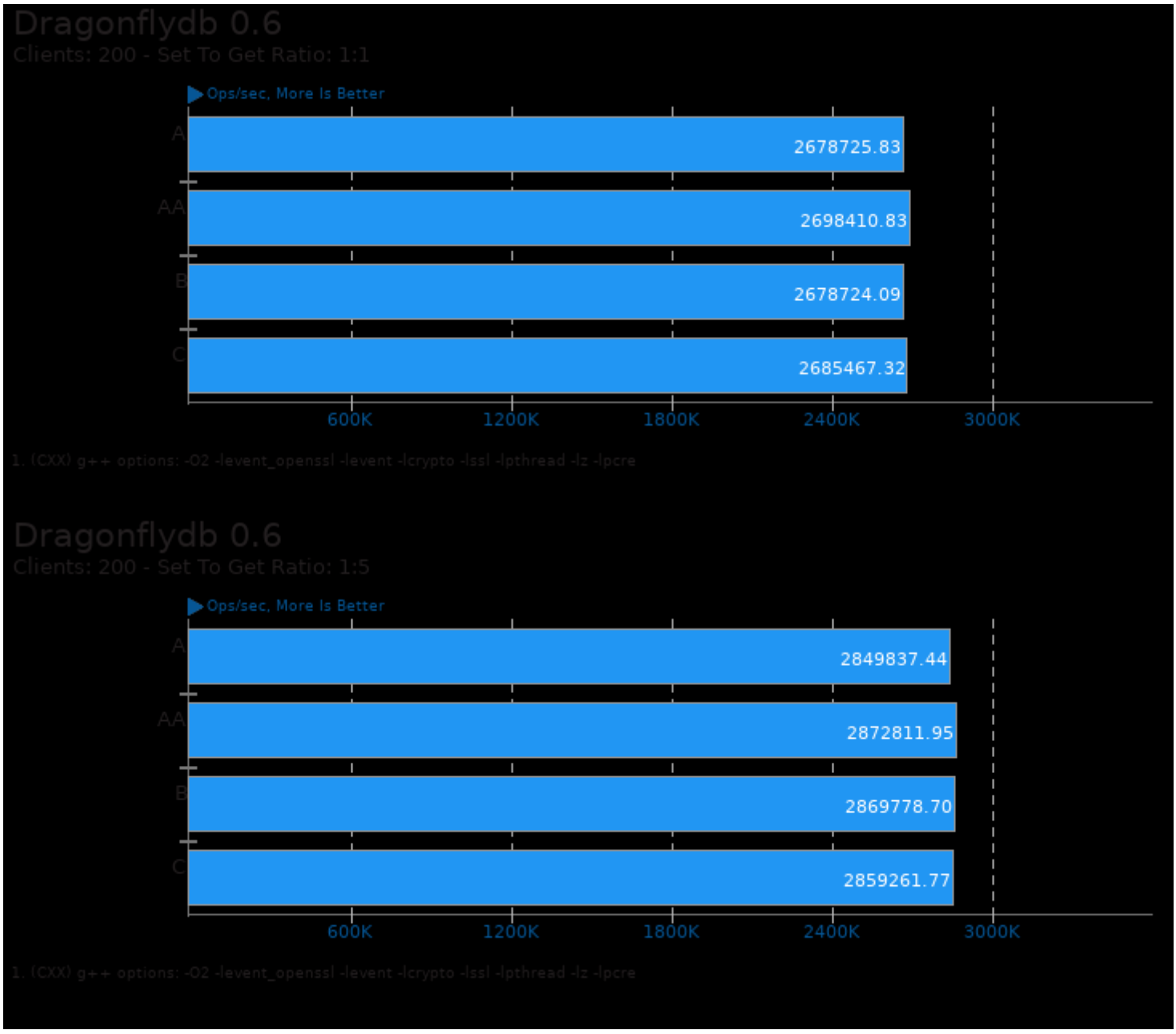
Dragonflydb 0.6

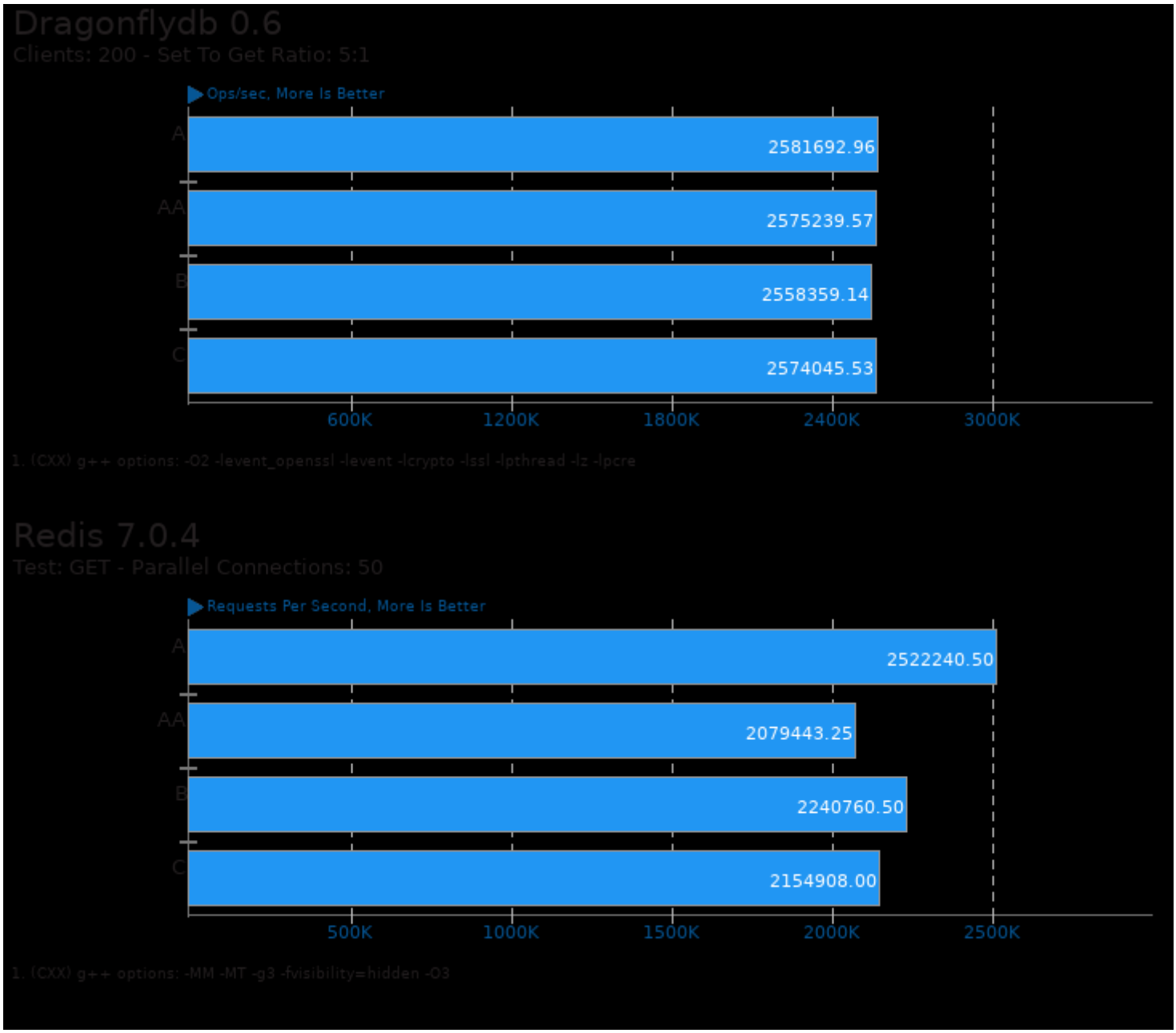
Clients: 50 - Set To Get Ratio: 1:1

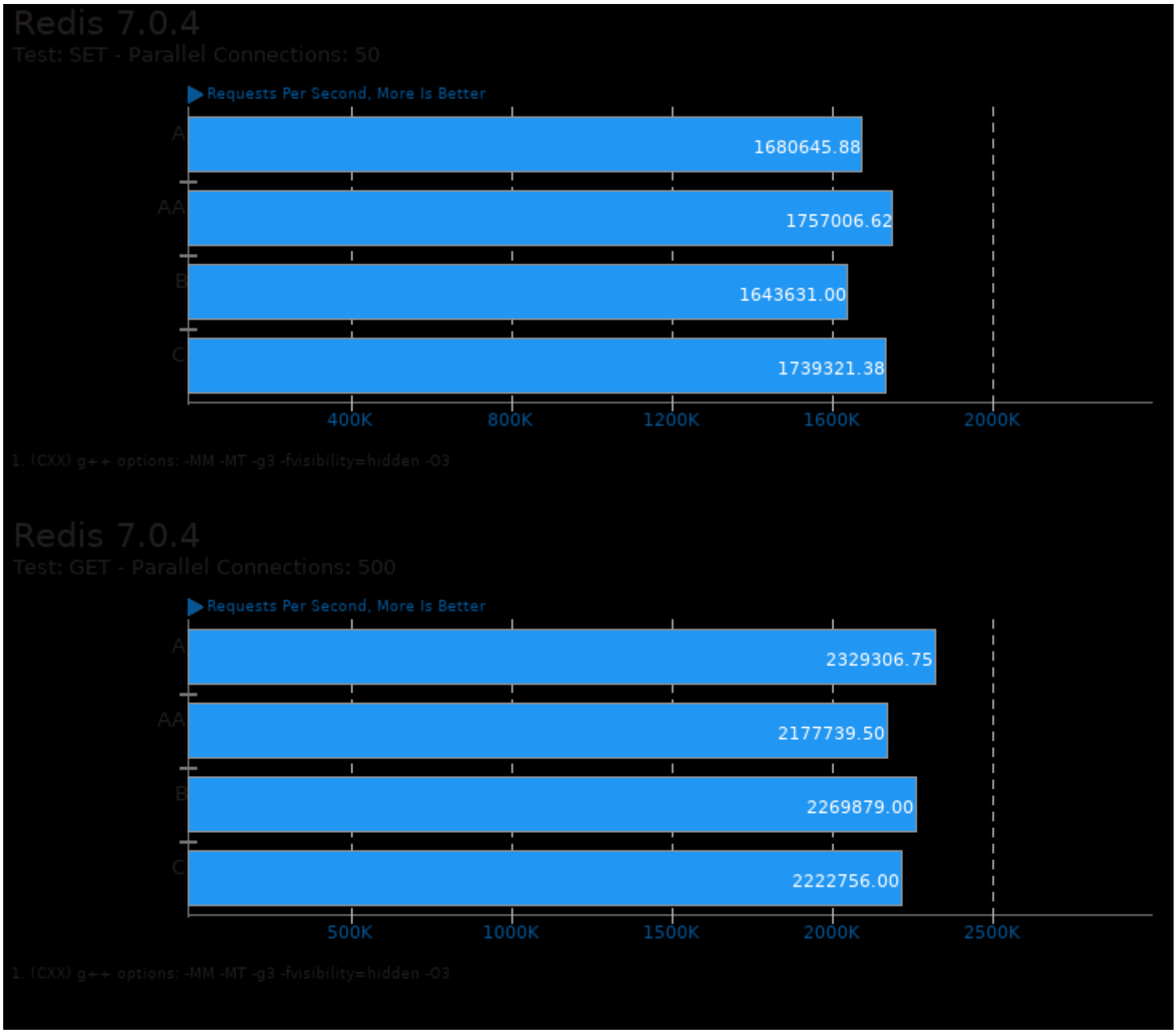


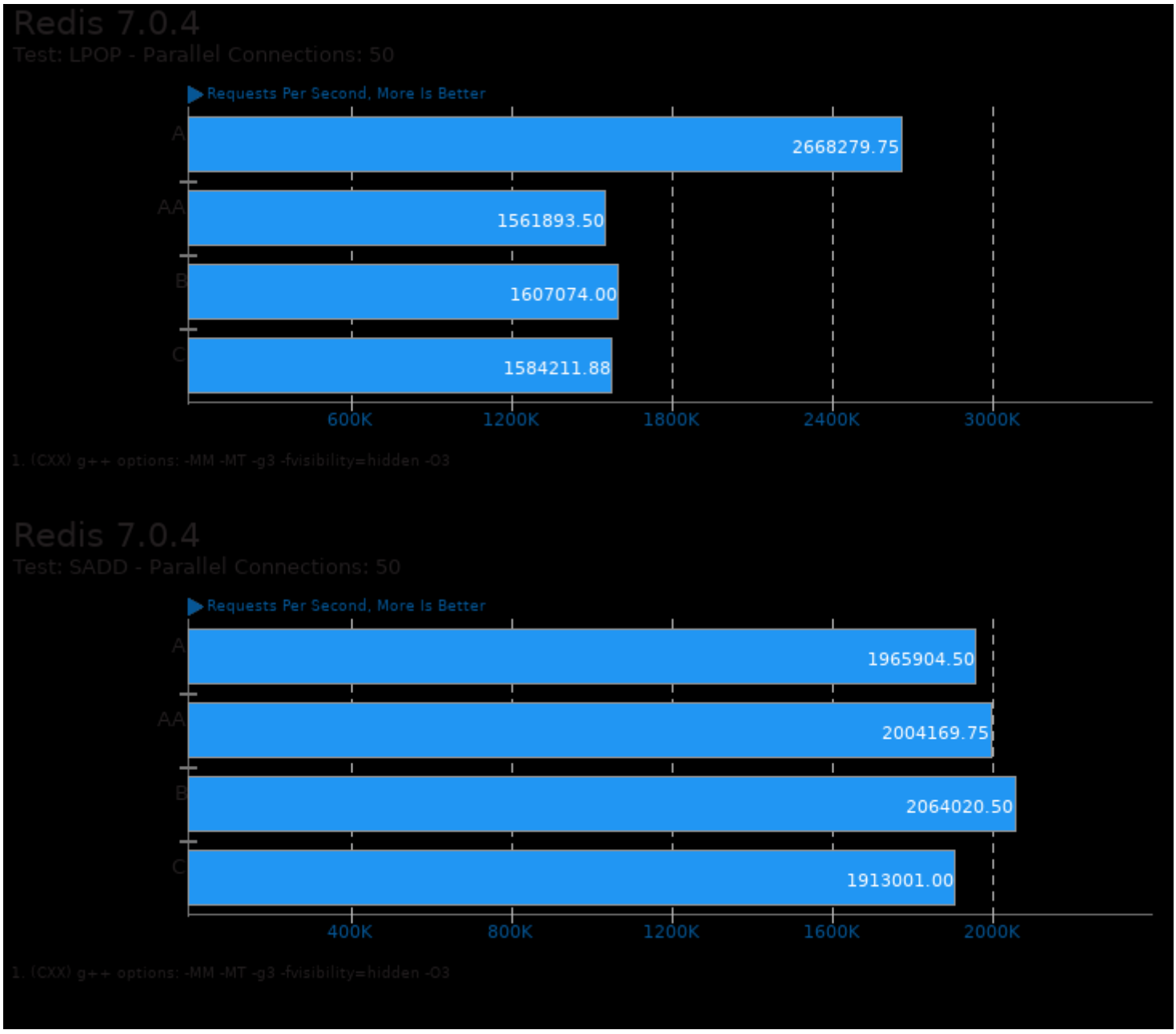
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

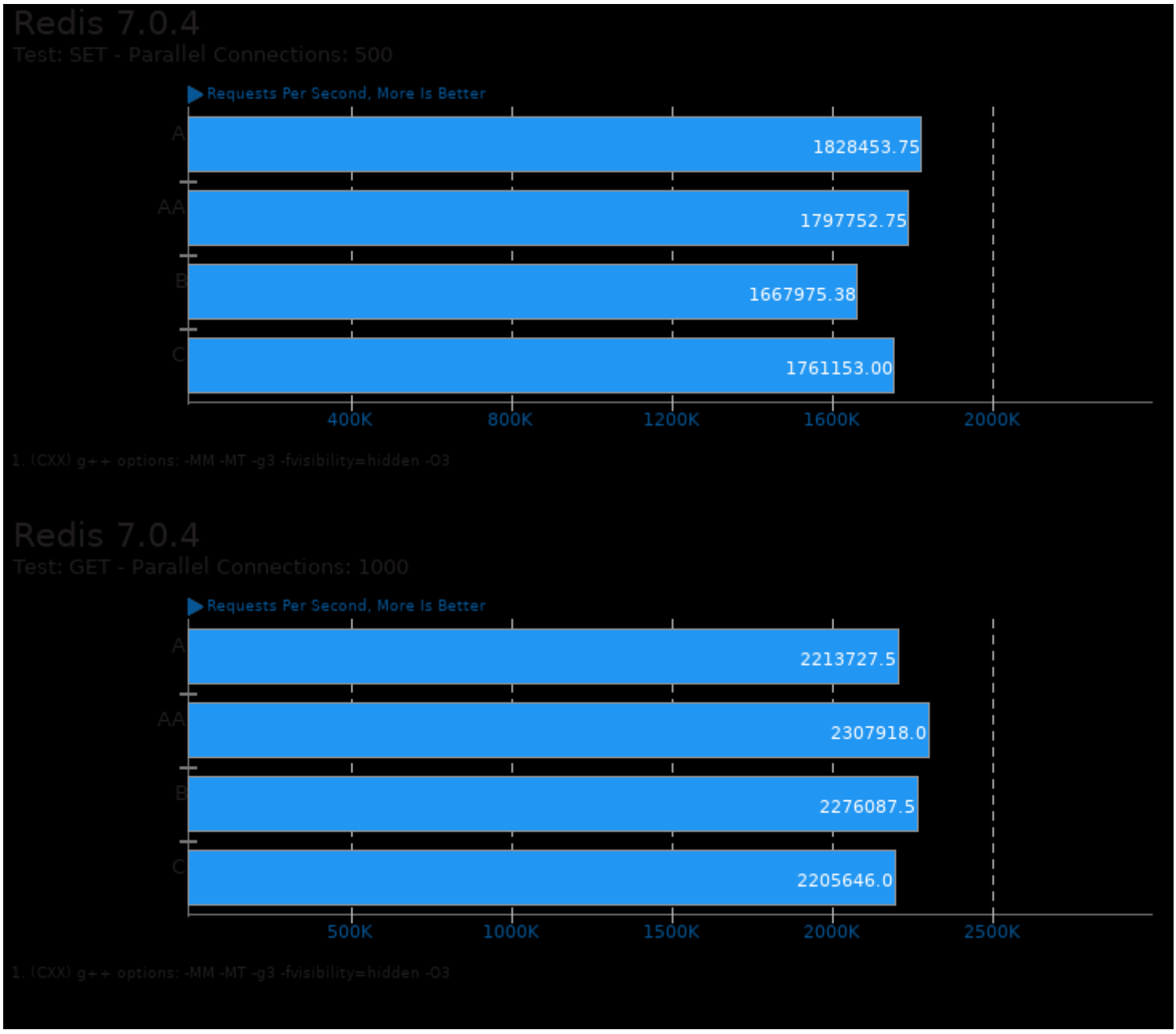

Dragonflydb 0.6
Clients: 50 - Set To Get Ratio: 1:5
Ops/sec, More Is Better
A
AA
B
C
3129187.64
3135276.20
3135021.28
3129879.97
700K
1400K
2100K
2800K
3500K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
Dragonflydb 0.6
Clients: 50 - Set To Get Ratio: 5:1
Ops/sec, More Is Better
A
AA
B
C
2772545.65
2828285.63
2808028.85
2819421.36
600K
1200K
1800K
2400K
3000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

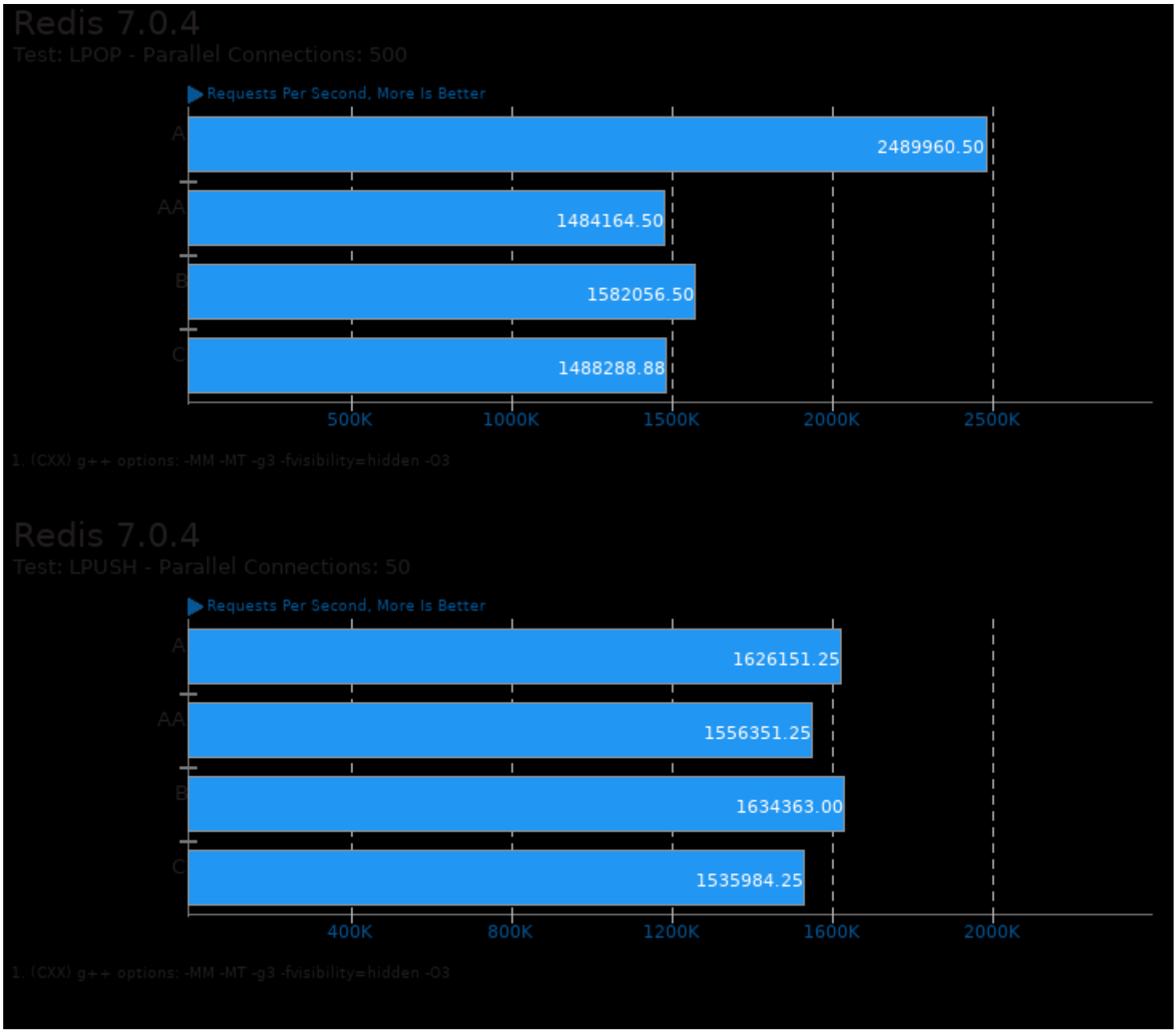

Dragonflydb 0.6
Clients: 200 - Set To Get Ratio: 1:1
Ops/sec, More Is Better
A
AA
B
C
2678725.83
2698410.83
2678724.09
2685467.32
600K
1200K
1800K
2400K
3000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
Dragonflydb 0.6
Clients: 200 - Set To Get Ratio: 1:5
Ops/sec, More Is Better
A
AA
B
C
2849837.44
2872811.95
2869778.70
2859261.77
600K
1200K
1800K
2400K
3000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

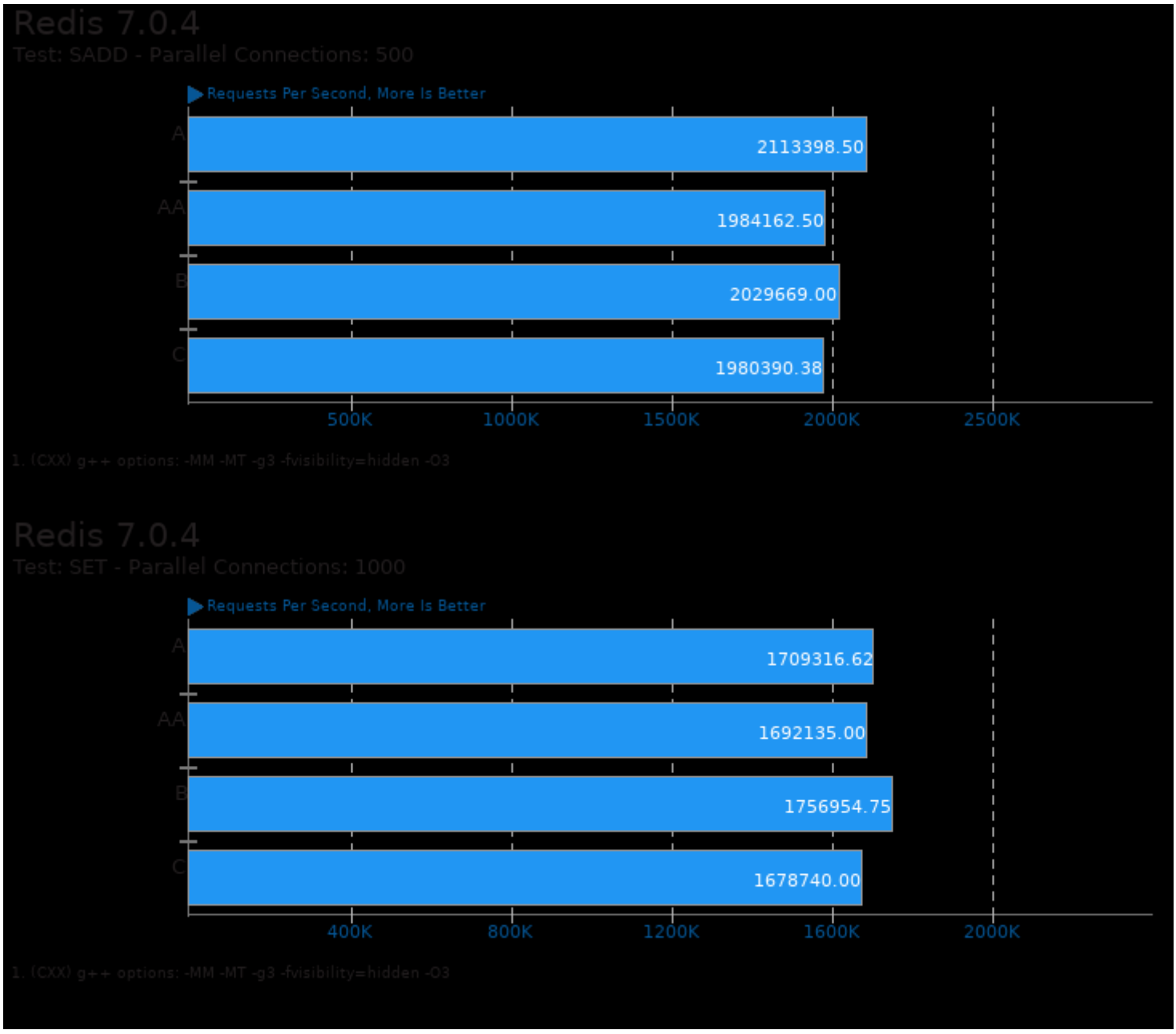

Dragonflydb 0.6
Clients: 200 - Set To Get Ratio: 5:1
Ops/sec, More Is Better
A
AA
B
C
2581692.96
2575239.57
2558359.14
2574045.53
600K
1200K
1800K
2400K
3000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
Redis 7.0.4
Test: GET - Parallel Connections: 50
Requests Per Second, More Is Better
A
AA
B
C
2522240.50
2079443.25
2240760.50
2154908.00
500K
1000K
1500K
2000K
2500K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

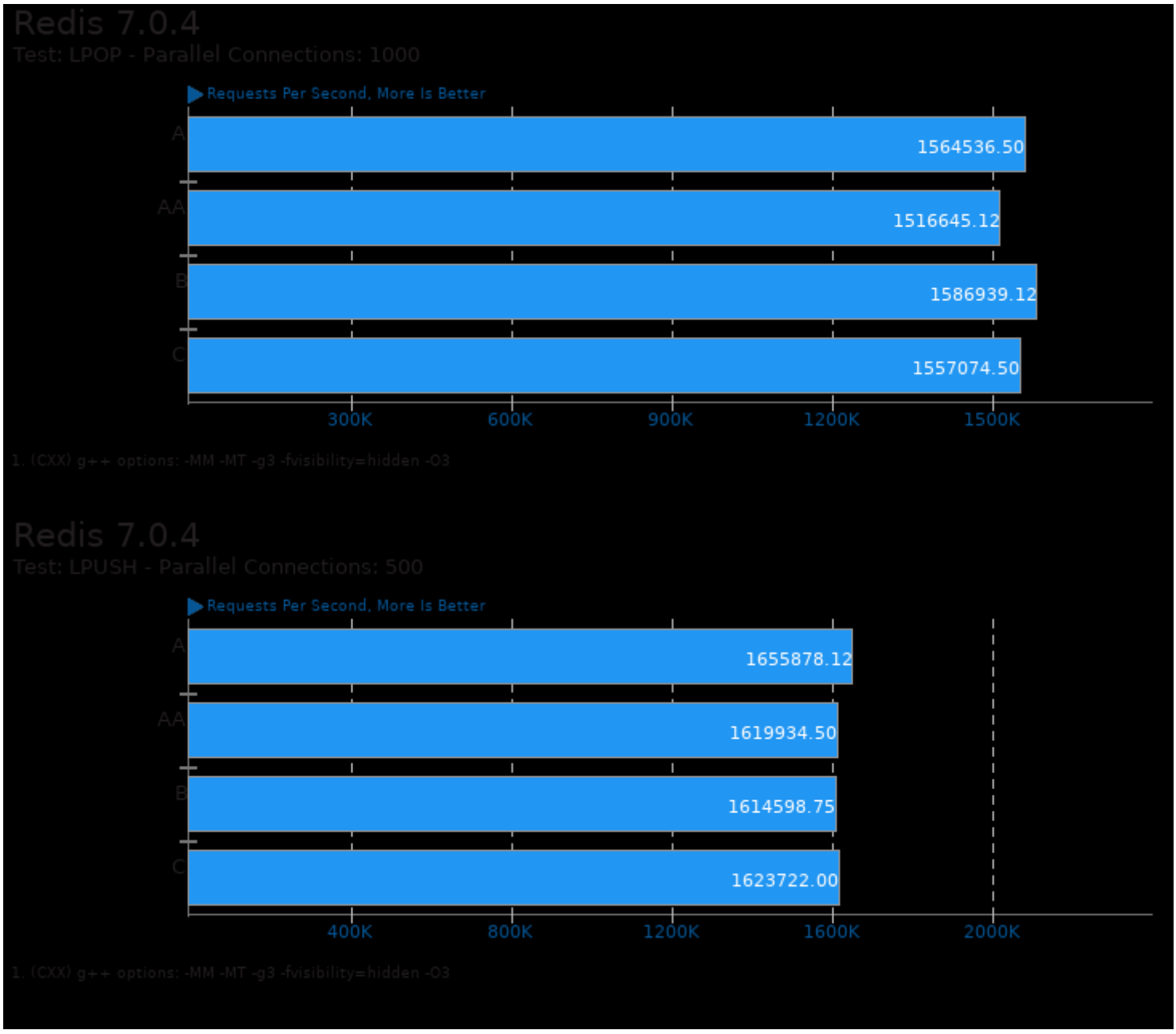

Redis 7.0.4
Test: SET - Parallel Connections: 50
Requests Per Second, More Is Better
A
AA
B
C
1680645.88
1757006.62
1643631.00
1739321.38
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: GET - Parallel Connections: 500
Requests Per Second, More Is Better
A
AA
B
C
2329306.75
2177739.50
2269879.00
2222756.00
500K
1000K
1500K
2000K
2500K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

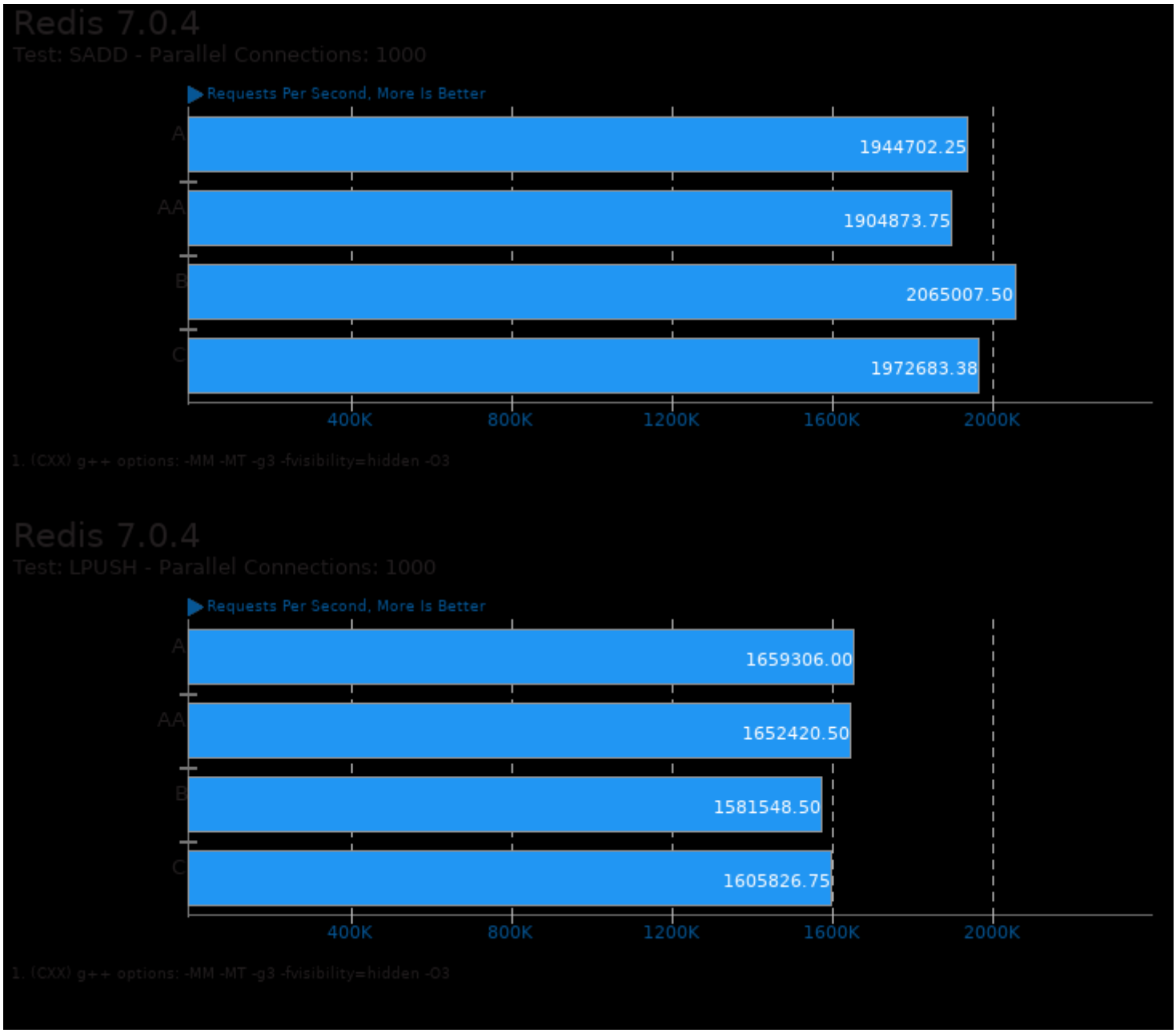

Redis 7.0.4
Test: LPOP - Parallel Connections: 50
Requests Per Second, More Is Better
A
AA
B
C
2668279.75
1561893.50
1607074.00
1584211.88
600K
1200K
1800K
2400K
3000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: SADD - Parallel Connections: 50
Requests Per Second, More Is Better
A
AA
B
C
1965904.50
2004169.75
2064020.50
1913001.00
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

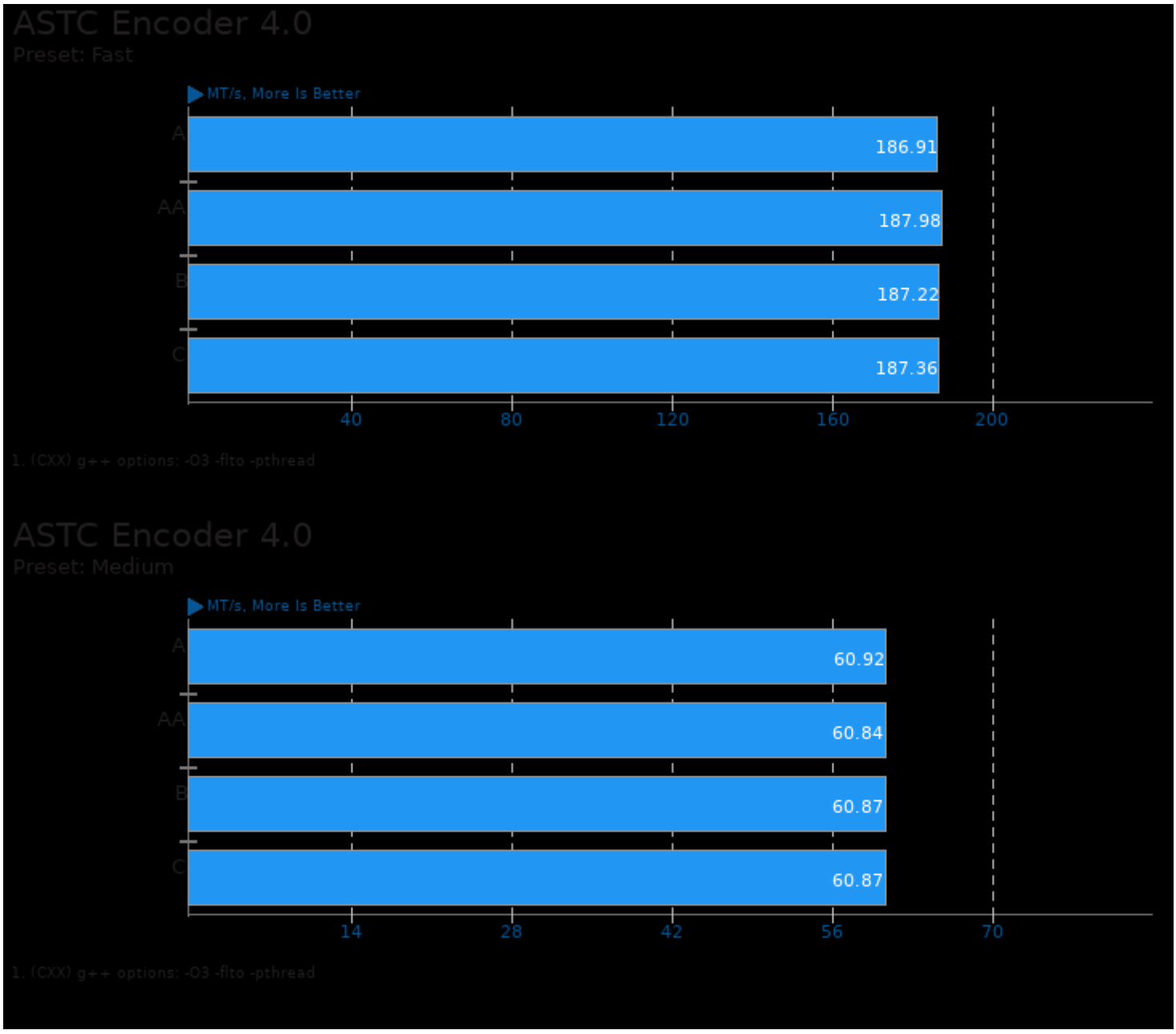

Redis 7.0.4
Test: SET - Parallel Connections: 500
Requests Per Second, More Is Better
A
AA
B
C
1828453.75
1797752.75
1667975.38
1761153.00
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: GET - Parallel Connections: 1000
Requests Per Second, More Is Better
A
AA
B
C
2213727.5
2307918.0
2276087.5
2205646.0
500K
1000K
1500K
2000K
2500K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

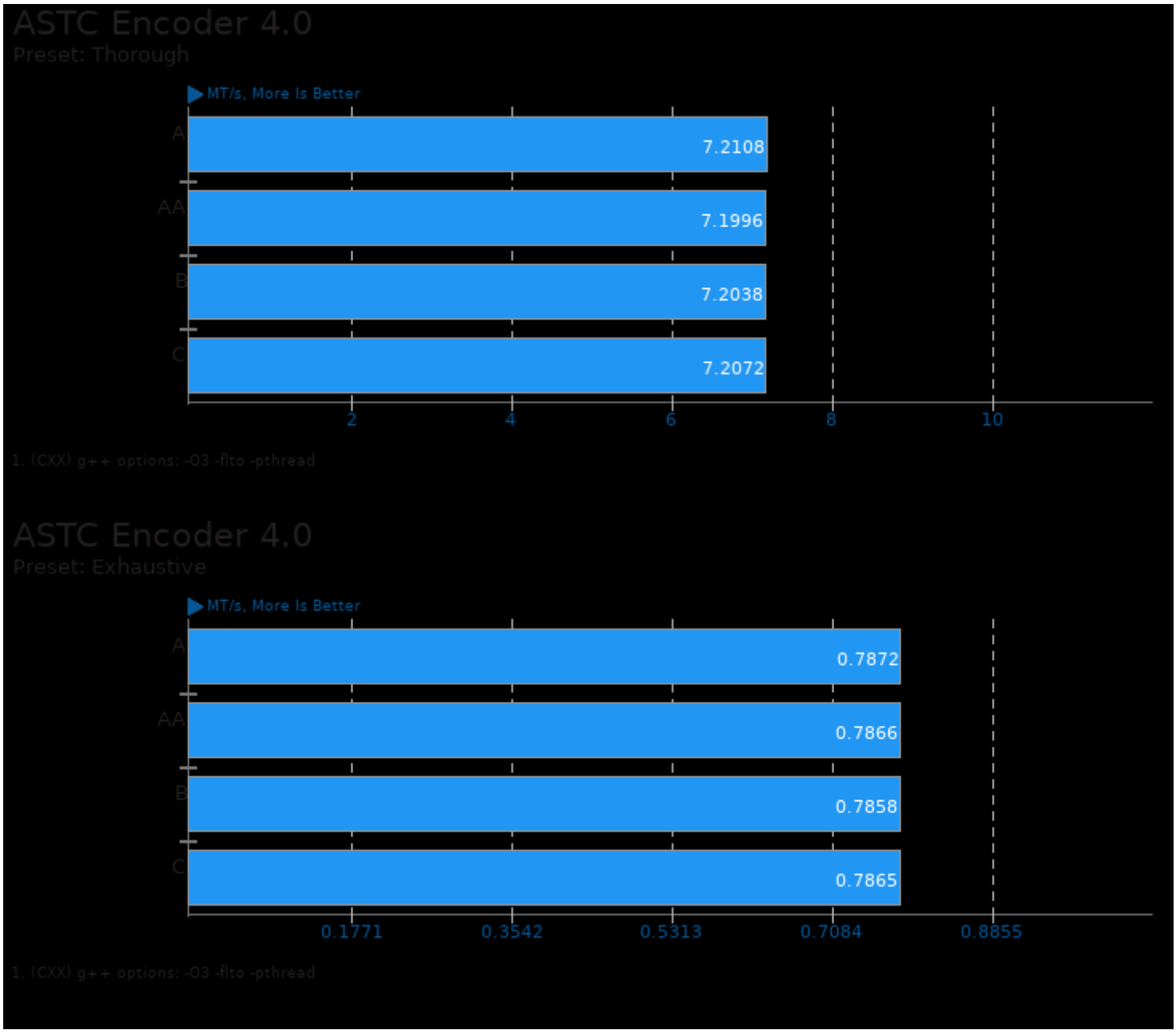

Redis 7.0.4
Test: LPOP - Parallel Connections: 500
Requests Per Second, More Is Better
A
AA
B
C
2489960.50
1484164.50
1582056.50
1488288.88
500K
1000K
1500K
2000K
2500K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: LPUSH - Parallel Connections: 50
Requests Per Second, More Is Better
A
AA
B
C
1626151.25
1556351.25
1634363.00
1535984.25
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

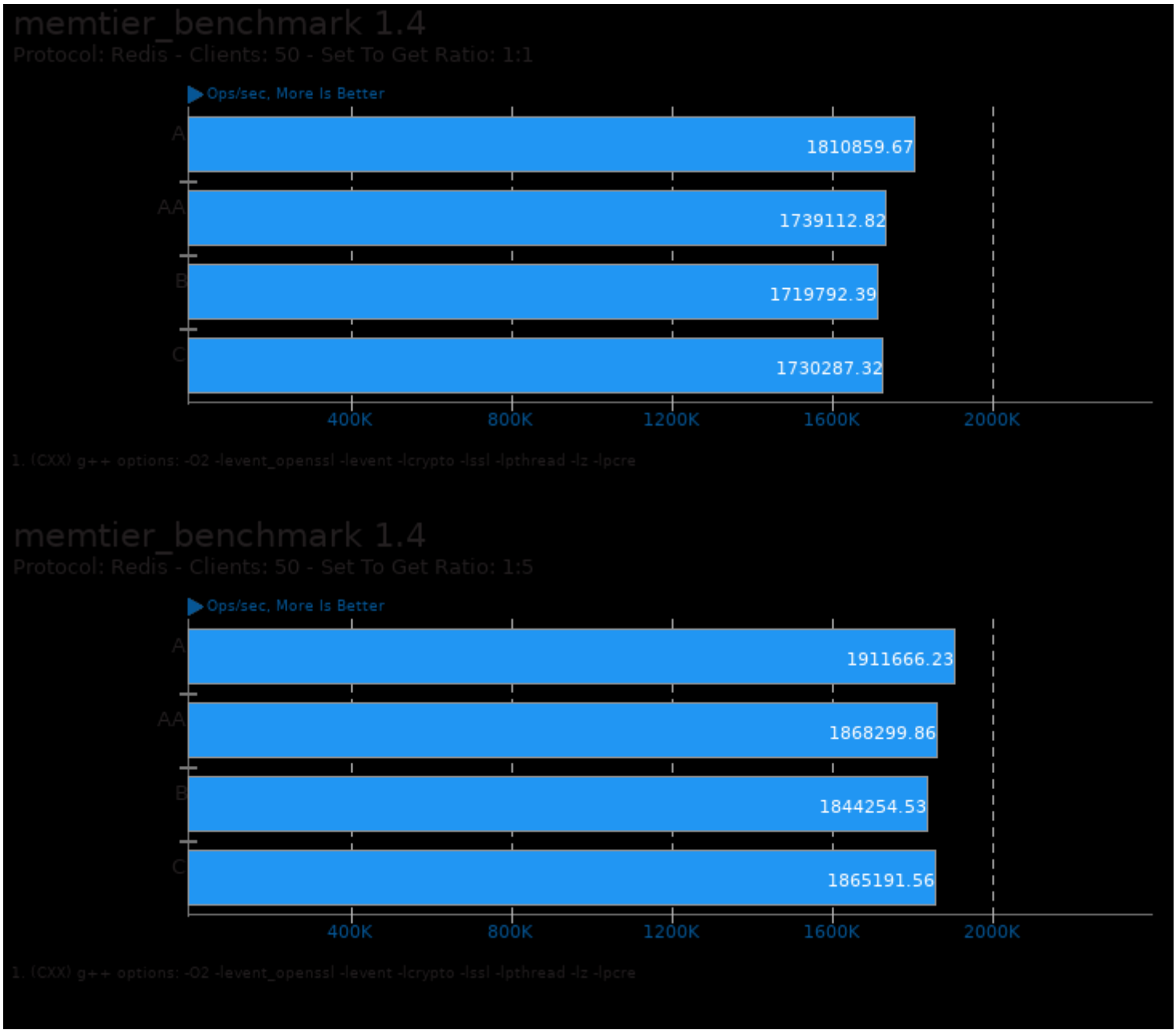

Redis 7.0.4
Test: SADD - Parallel Connections: 500
Requests Per Second, More Is Better
A
AA
B
C
2113398.50
1984162.50
2029669.00
1980390.38
500K
1000K
1500K
2000K
2500K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: SET - Parallel Connections: 1000
Requests Per Second, More Is Better
A
AA
B
C
1709316.62
1692135.00
1756954.75
1678740.00
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

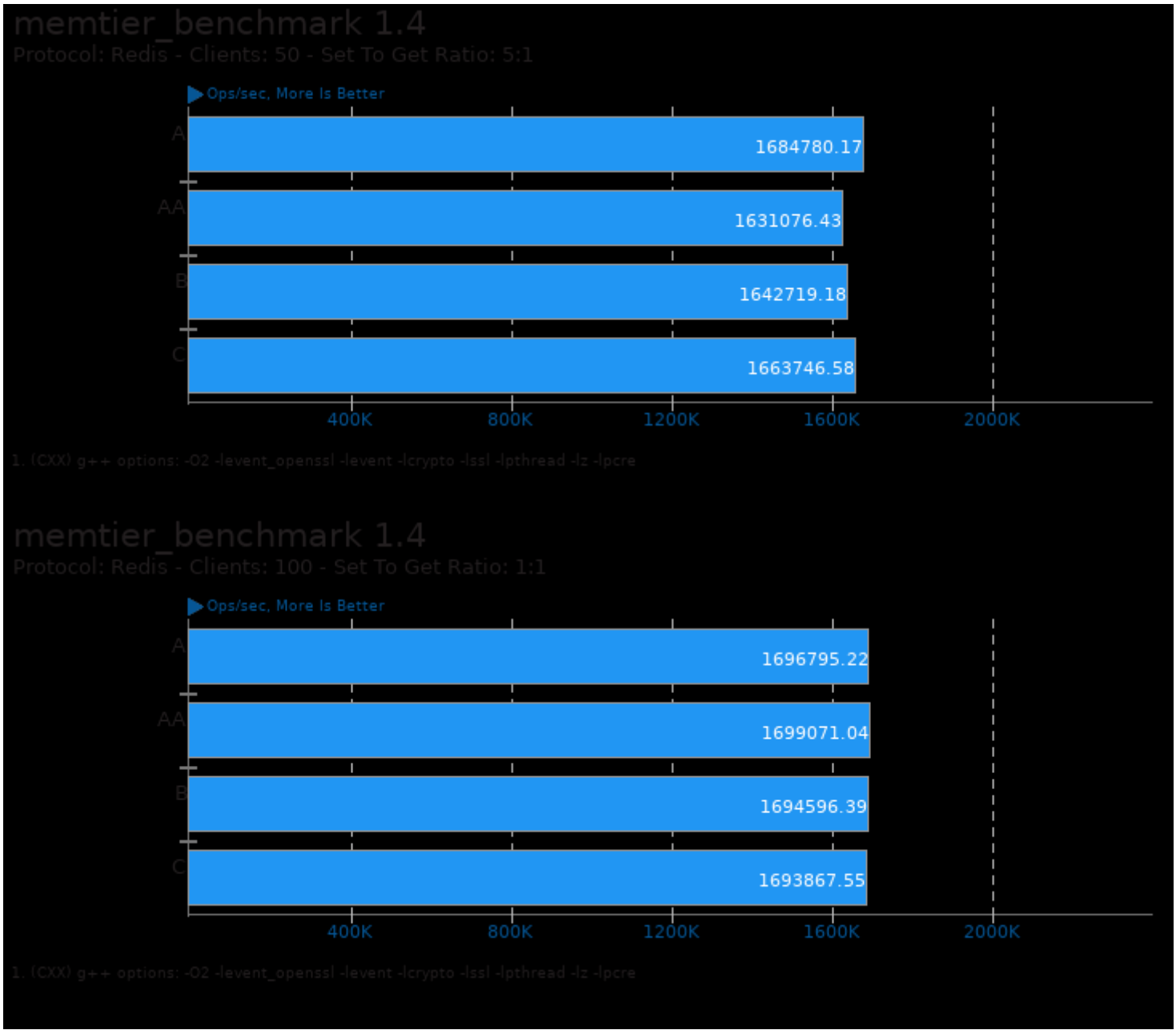

Redis 7.0.4
Test: LPOP - Parallel Connections: 1000
Requests Per Second, More Is Better
A
AA
B
C
1564536.50
1516645.12
1586939.12
1557074.50
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: LPUSH - Parallel Connections: 500
Requests Per Second, More Is Better
A
AA
B
C
1655878.12
1619934.50
1614598.75
1623722.00
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

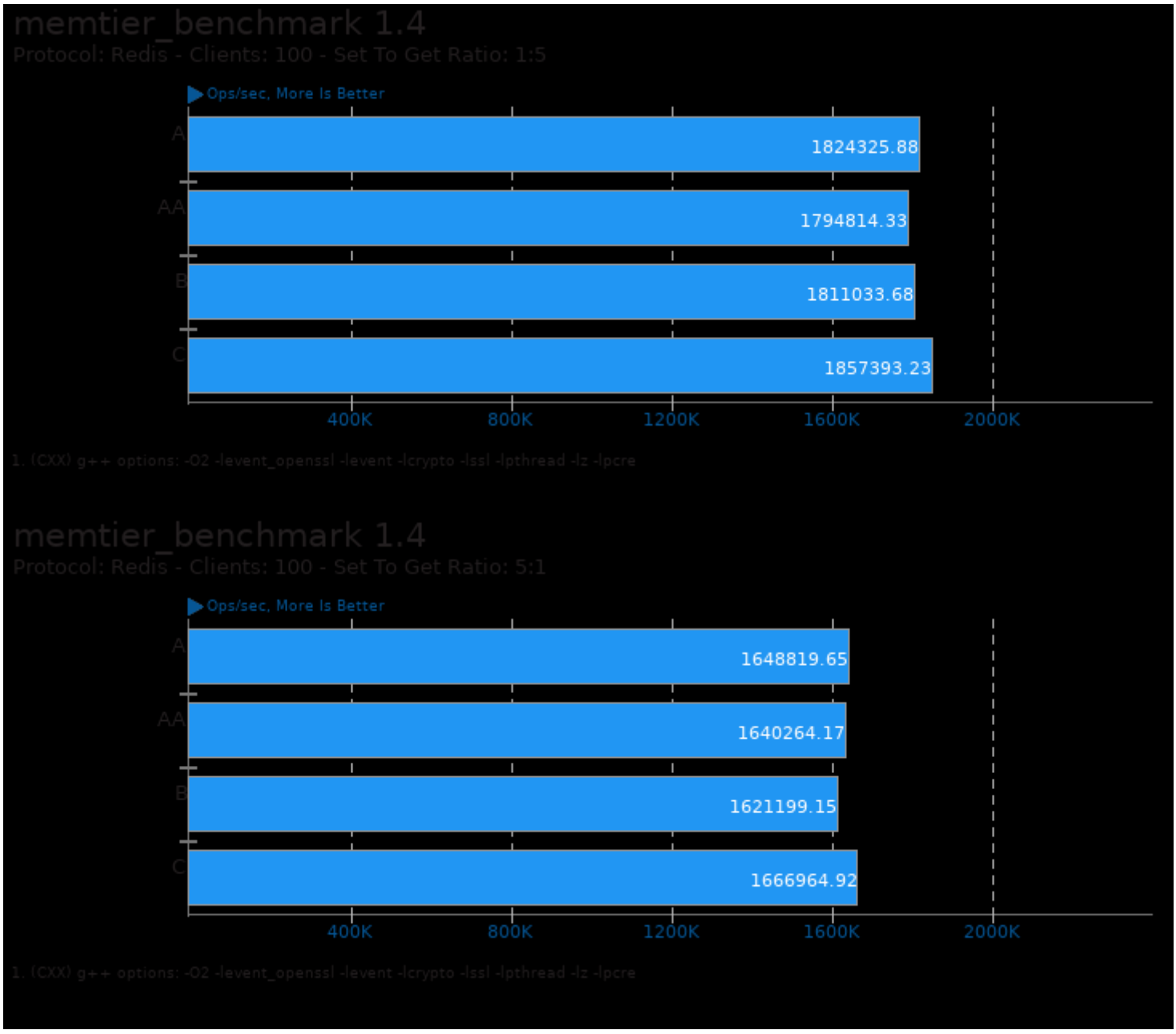

Redis 7.0.4
Test: SADD - Parallel Connections: 1000
Requests Per Second, More Is Better
A
AA
B
C
1944702.25
1904873.75
2065007.50
1972683.38
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3
Redis 7.0.4
Test: LPUSH - Parallel Connections: 1000
Requests Per Second, More Is Better
A
AA
B
C
1659306.00
1652420.50
1581548.50
1605826.75
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -MM -MT -g3 -fvisibility=hidden -O3

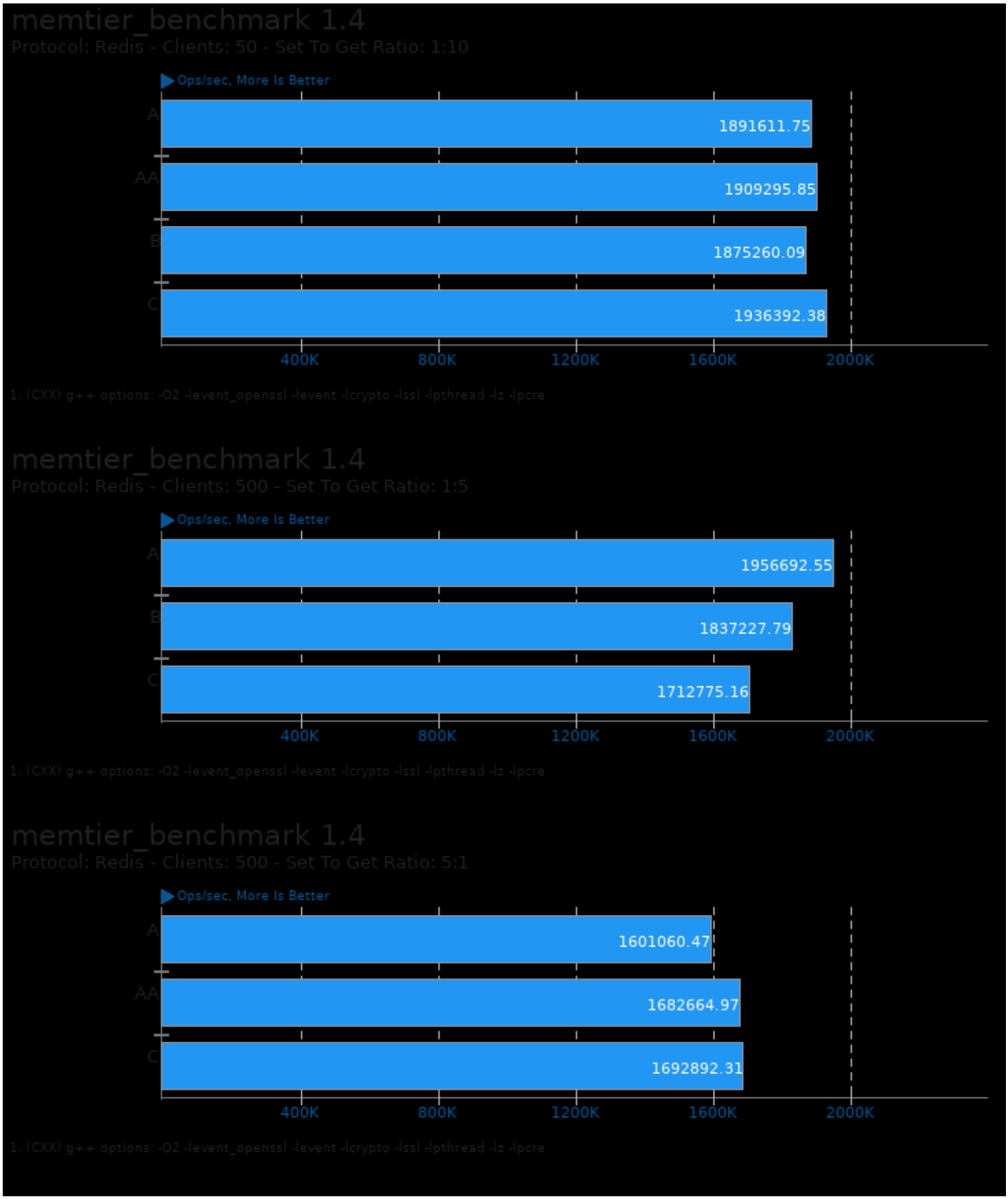

ASTC Encoder 4.0
Preset: Fast
MT/s, More Is Better
A
AA
B
C
186.91
187.98
187.22
187.36
40
80
120
160
200
1. (CXX) g++ options: -O3 -flto -pthread
ASTC Encoder 4.0
Preset: Medium
MT/s, More Is Better
A
AA
B
C
60.92
60.84
60.87
60.87
14
28
42
56
70
1. (CXX) g++ options: -O3 -flto -pthread

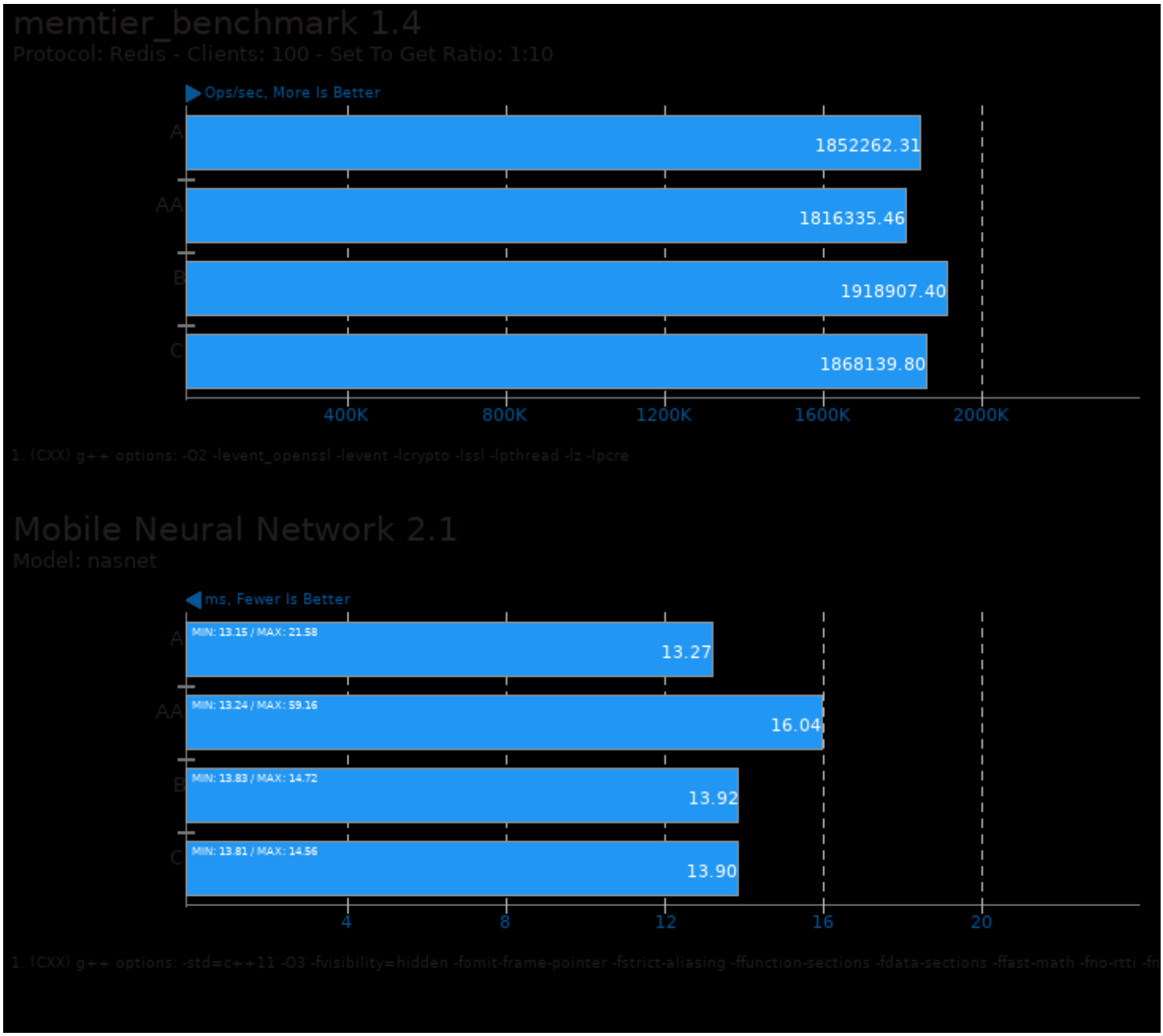

ASTC Encoder 4.0
Preset: Thorough
MT/s, More Is Better
A
AA
B
C
7.2108
7.1996
7.2038
7.2072
2
4
6
8
10
1. (CXX) g++ options: -O3 -flto -pthread
ASTC Encoder 4.0
Preset: Exhaustive
MT/s, More Is Better
A
AA
B
C
0.7872
0.7866
0.7858
0.7865
0.1771
0.3542
0.5313
0.7084
0.8855
1. (CXX) g++ options: -O3 -flto -pthread

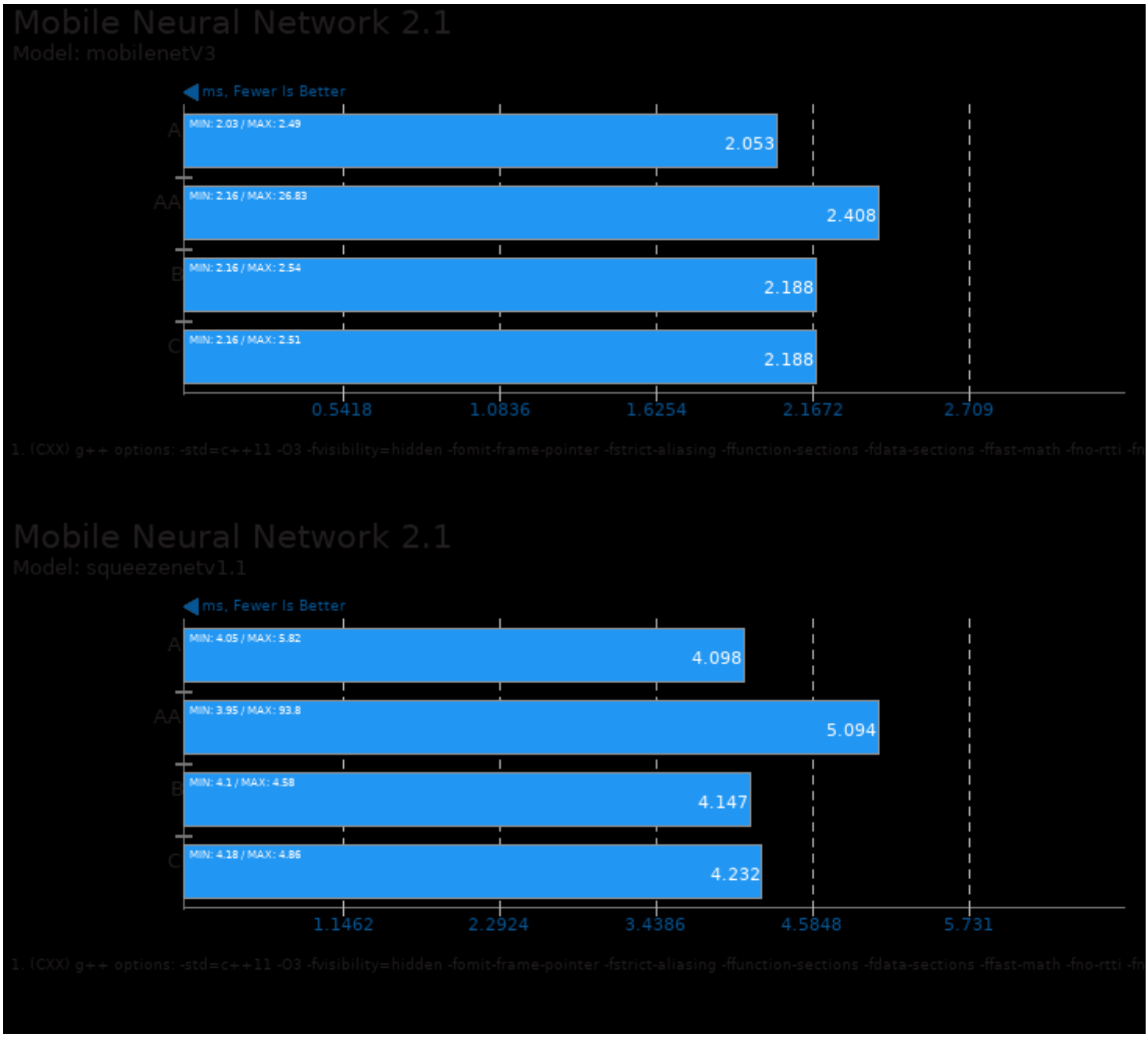

memtier_benchmark 1.4
Protocol: Redis - Clients: 50 - Set To Get Ratio: 1:1
Ops/sec, More Is Better
A
AA
B
C
1810859.67
1739112.82
1719792.39
1730287.32
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
memtier_benchmark 1.4
Protocol: Redis - Clients: 50 - Set To Get Ratio: 1:5
Ops/sec, More Is Better
A
AA
B
C
1911666.23
1868299.86
1844254.53
1865191.56
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

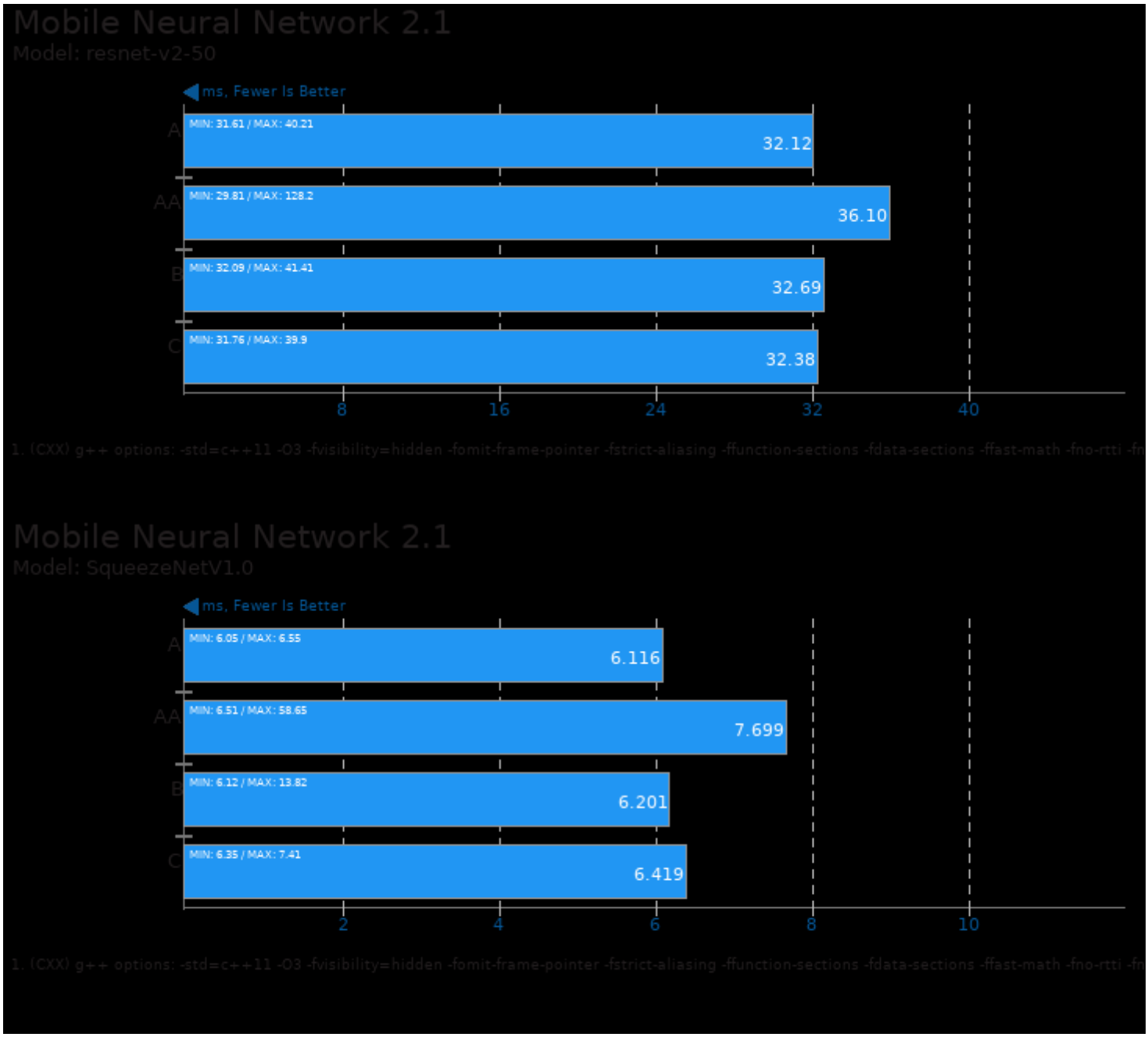

memtier_benchmark 1.4
Protocol: Redis - Clients: 50 - Set To Get Ratio: 5:1
Ops/sec, More Is Better
A
AA
B
C
1684780.17
1631076.43
1642719.18
1663746.58
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
memtier_benchmark 1.4
Protocol: Redis - Clients: 100 - Set To Get Ratio: 1:1
Ops/sec, More Is Better
A
AA
B
C
1696795.22
1699071.04
1694596.39
1693867.55
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

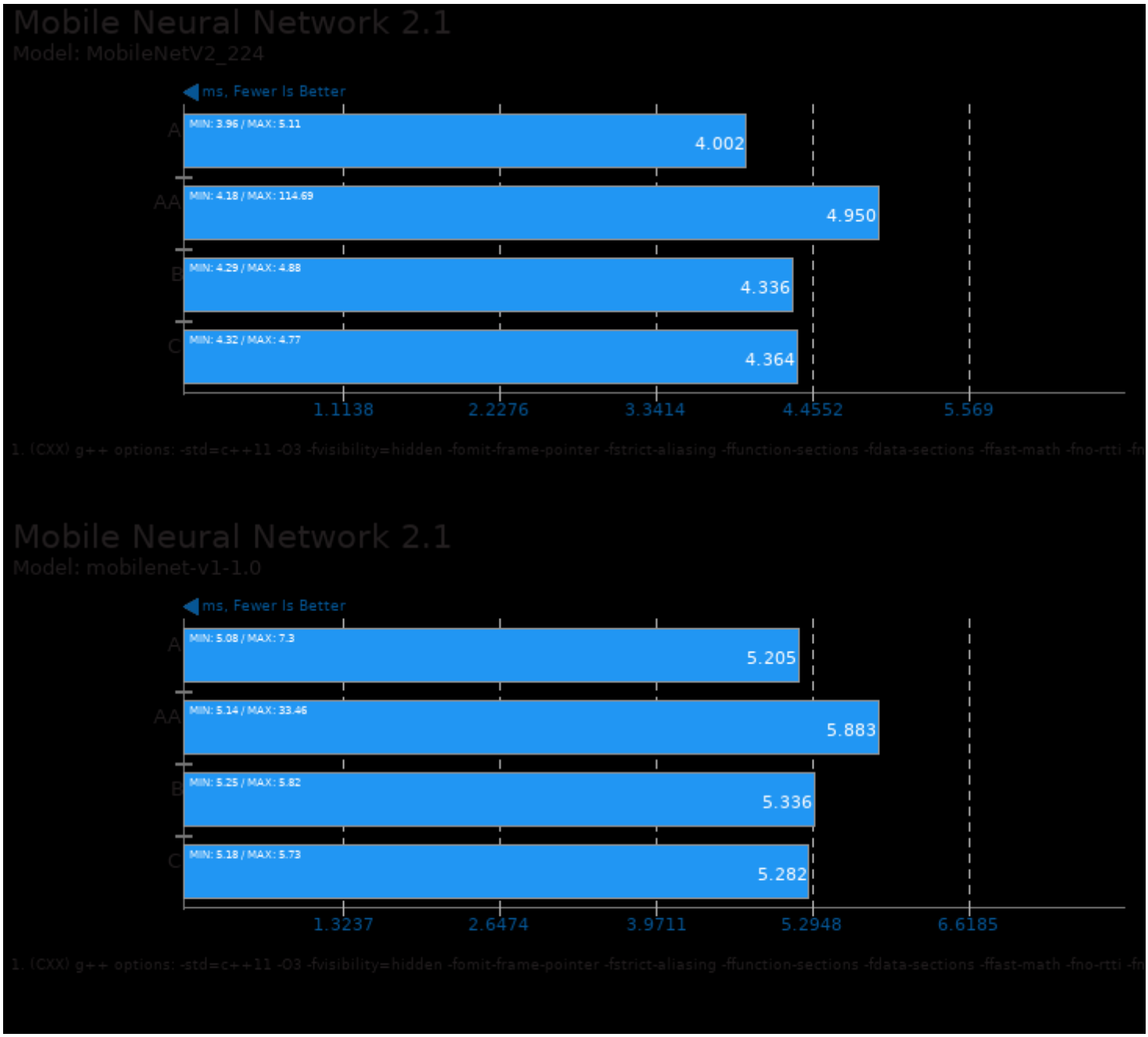

memtier_benchmark 1.4
Protocol: Redis - Clients: 100 - Set To Get Ratio: 1:5
Ops/sec, More Is Better
A
AA
B
C
1824325.88
1794814.33
1811033.68
1857393.23
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
memtier_benchmark 1.4
Protocol: Redis - Clients: 100 - Set To Get Ratio: 5:1
Ops/sec, More Is Better
A
AA
B
C
1648819.65
1640264.17
1621199.15
1666964.92
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

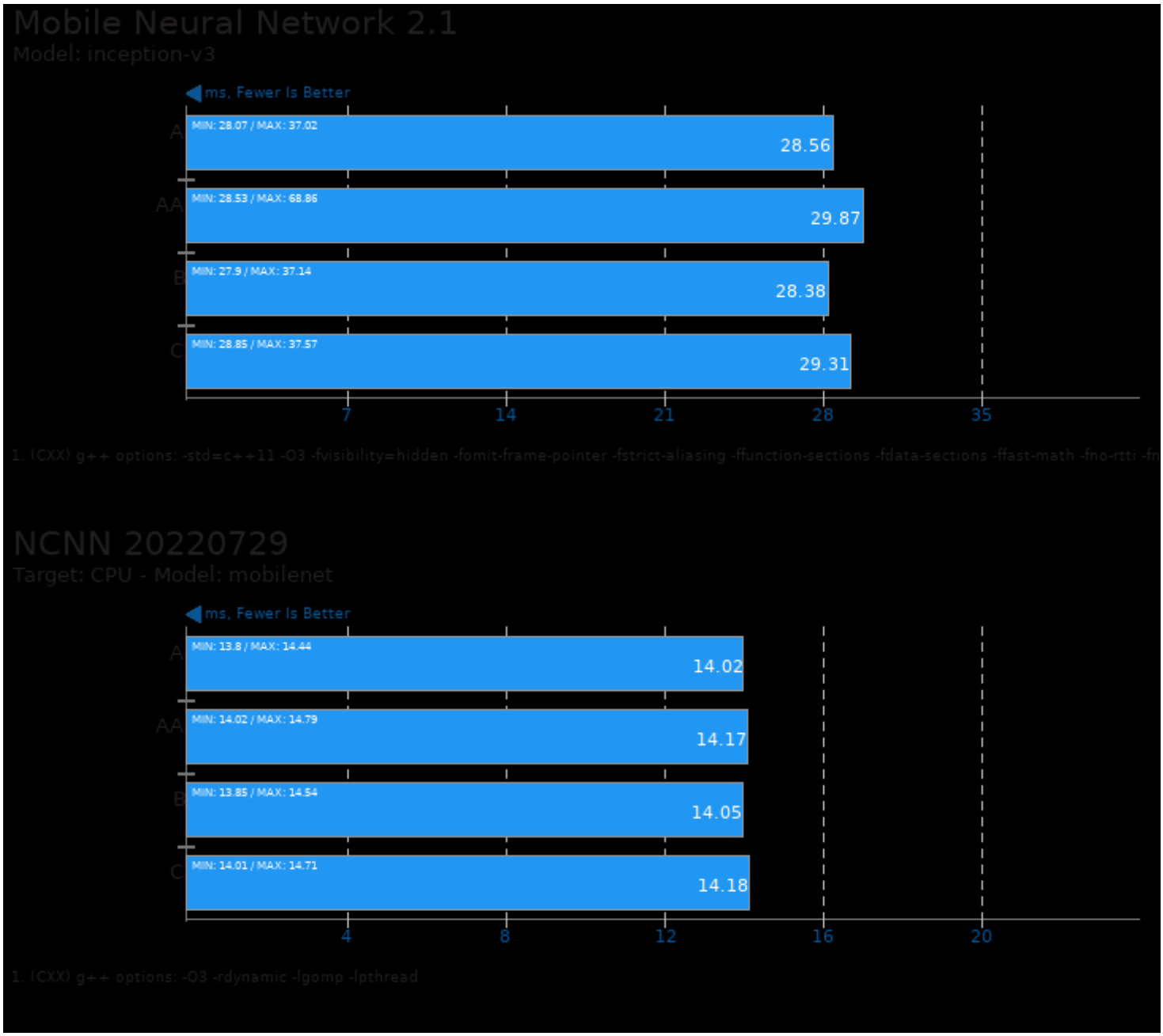

memtier_benchmark 1.4
Protocol: Redis - Clients: 50 - Set To Get Ratio: 1:10
Ops/sec, More Is Better
A
AA
B
C
1891611.75
1909295.85
1875260.09
1936392.38
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
memtier_benchmark 1.4
Protocol: Redis - Clients: 500 - Set To Get Ratio: 1:5
Ops/sec, More Is Better
A
B
C
1956692.55
1837227.79
1712775.16
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
memtier_benchmark 1.4
Protocol: Redis - Clients: 500 - Set To Get Ratio: 5:1
Ops/sec, More Is Better
A
AA
C
1601060.47
1682664.97
1692892.31
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

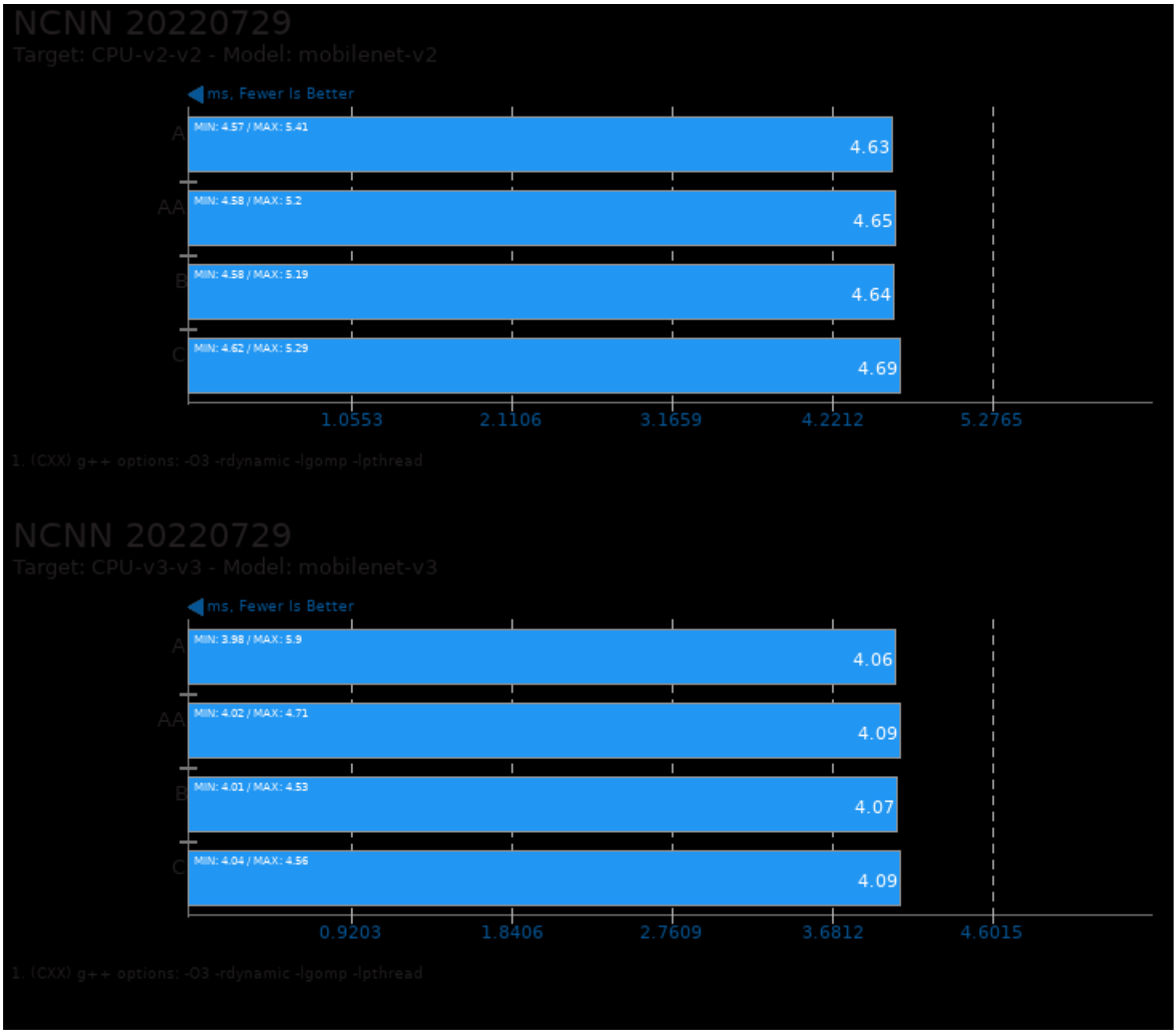

memtier_benchmark 1.4
Protocol: Redis - Clients: 100 - Set To Get Ratio: 1:10
Ops/sec, More Is Better
A
AA
B
C
1852262.31
1816335.46
1918907.40
1868139.80
400K
800K
1200K
1600K
2000K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre
Mobile Neural Network 2.1
Model: nasnet
ms, Fewer Is Better
MIN: 13.15 / MAX: 21.58
13.27
MIN: 13.24 / MAX: 59.16
16.04
MIN: 13.83 / MAX: 14.72
13.92
MIN: 13.81 / MAX: 14.56
13.90
4
8
12
16
20
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti

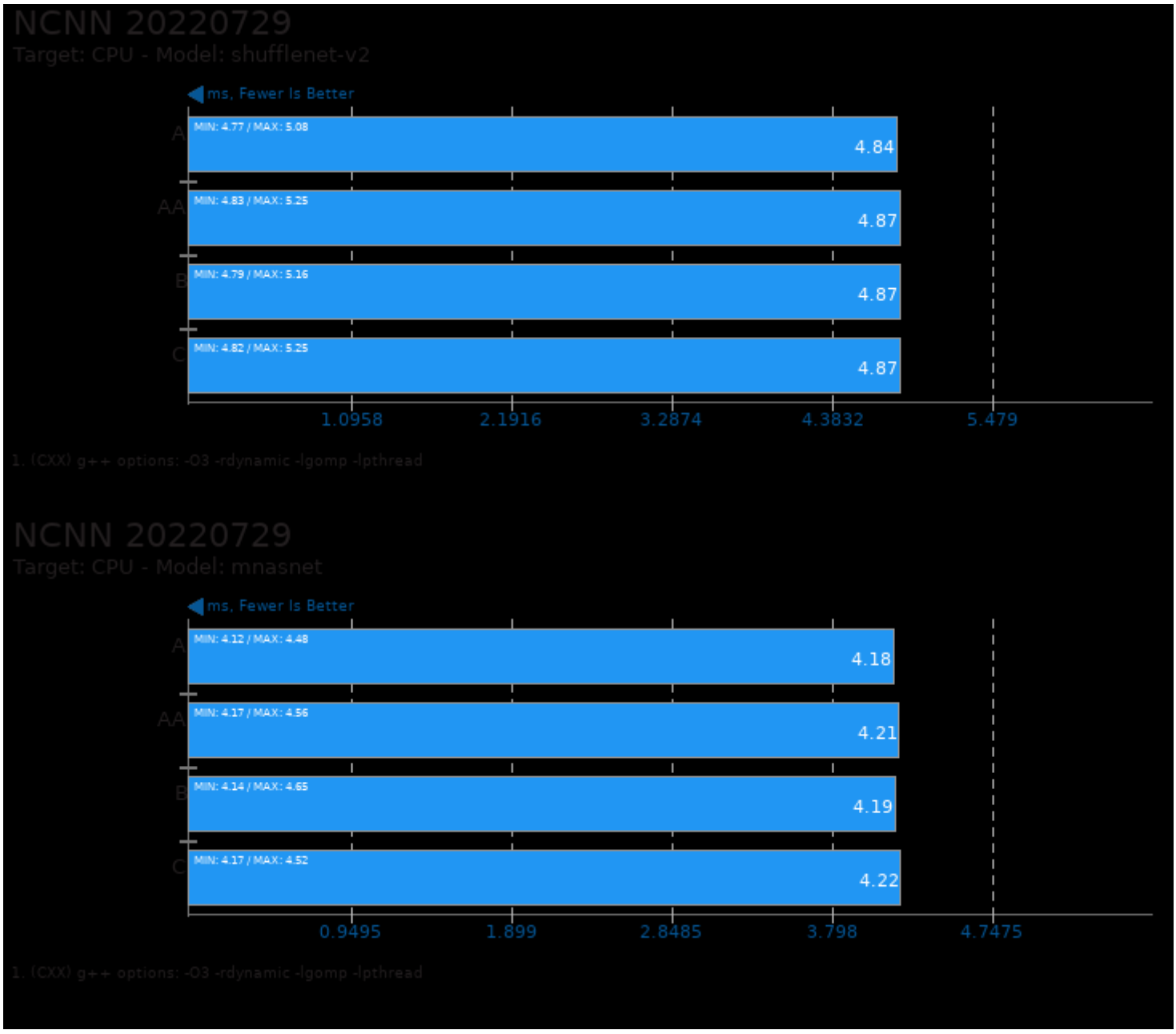

Mobile Neural Network 2.1
Model: mobilenetV3
ms, Fewer Is Better
A
MIN: 2.03 / MAX: 2.49
2.053
AA
MIN: 2.16 / MAX: 26.83
2.408
B
MIN: 2.16 / MAX: 2.54
2.188
C
MIN: 2.16 / MAX: 2.51
2.188
0.5418
1.0836
1.6254
2.1672
2.709
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr
Mobile Neural Network 2.1
Model: squeezenetv1.1
ms, Fewer Is Better
A
MIN: 4.05 / MAX: 5.82
4.098
AA
MIN: 3.95 / MAX: 93.8
5.094
B
MIN: 4.1 / MAX: 4.58
4.147
C
MIN: 4.18 / MAX: 4.86
4.232
1.1462
2.2924
3.4386
4.5848
5.731
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr

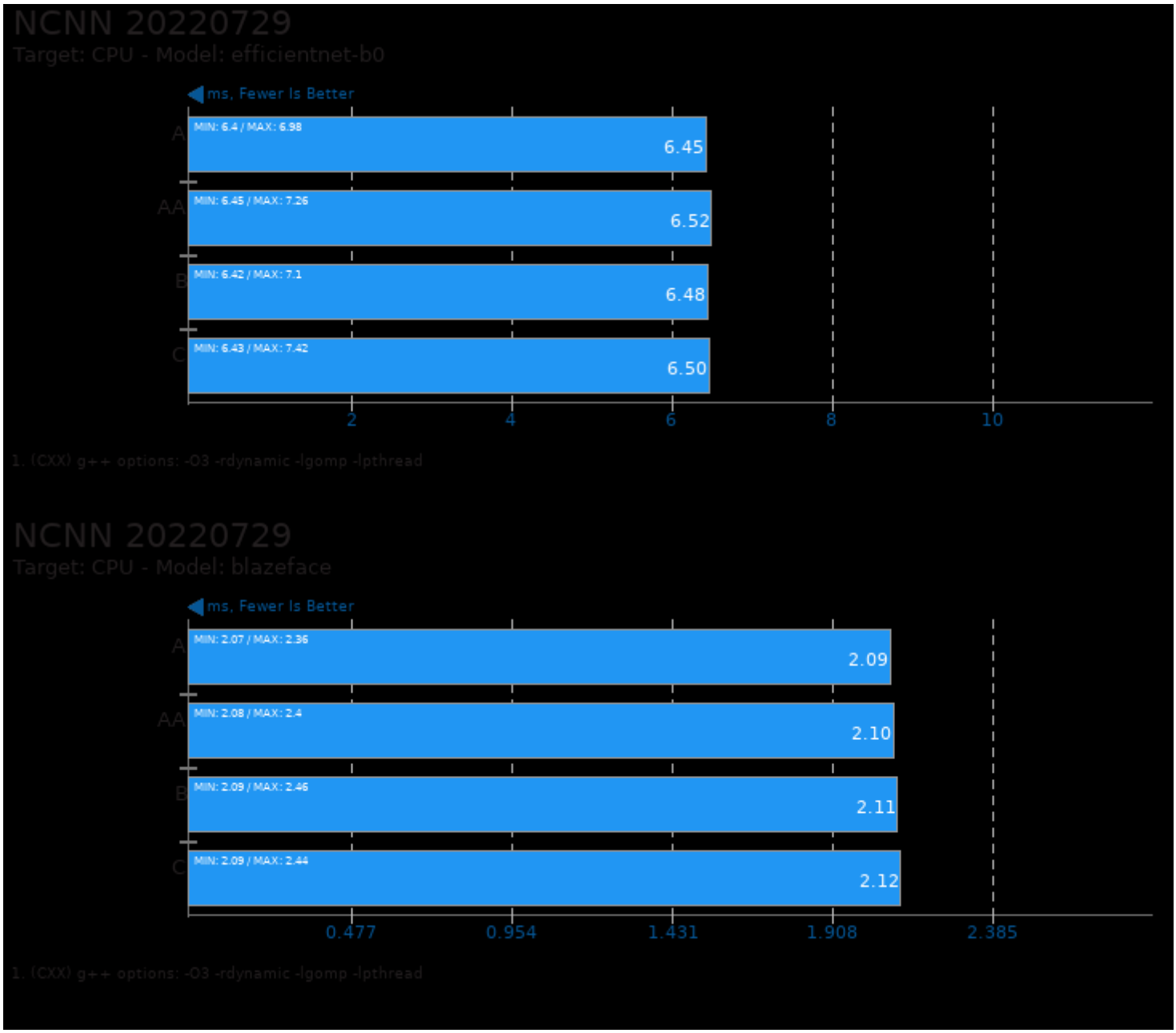

Mobile Neural Network 2.1
Model: resnet-v2-50
ms, Fewer Is Better
A
MIN: 31.61 / MAX: 40.21
32.12
AA
MIN: 29.81 / MAX: 128.2
36.10
B
MIN: 32.09 / MAX: 41.41
32.69
C
MIN: 31.76 / MAX: 39.9
32.38
8
16
24
32
40
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr
Mobile Neural Network 2.1
Model: SqueezeNetV1.0
ms, Fewer Is Better
A
MIN: 6.05 / MAX: 6.55
6.116
AA
MIN: 6.51 / MAX: 58.65
7.699
B
MIN: 6.12 / MAX: 13.82
6.201
C
MIN: 6.35 / MAX: 7.41
6.419
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 -fr

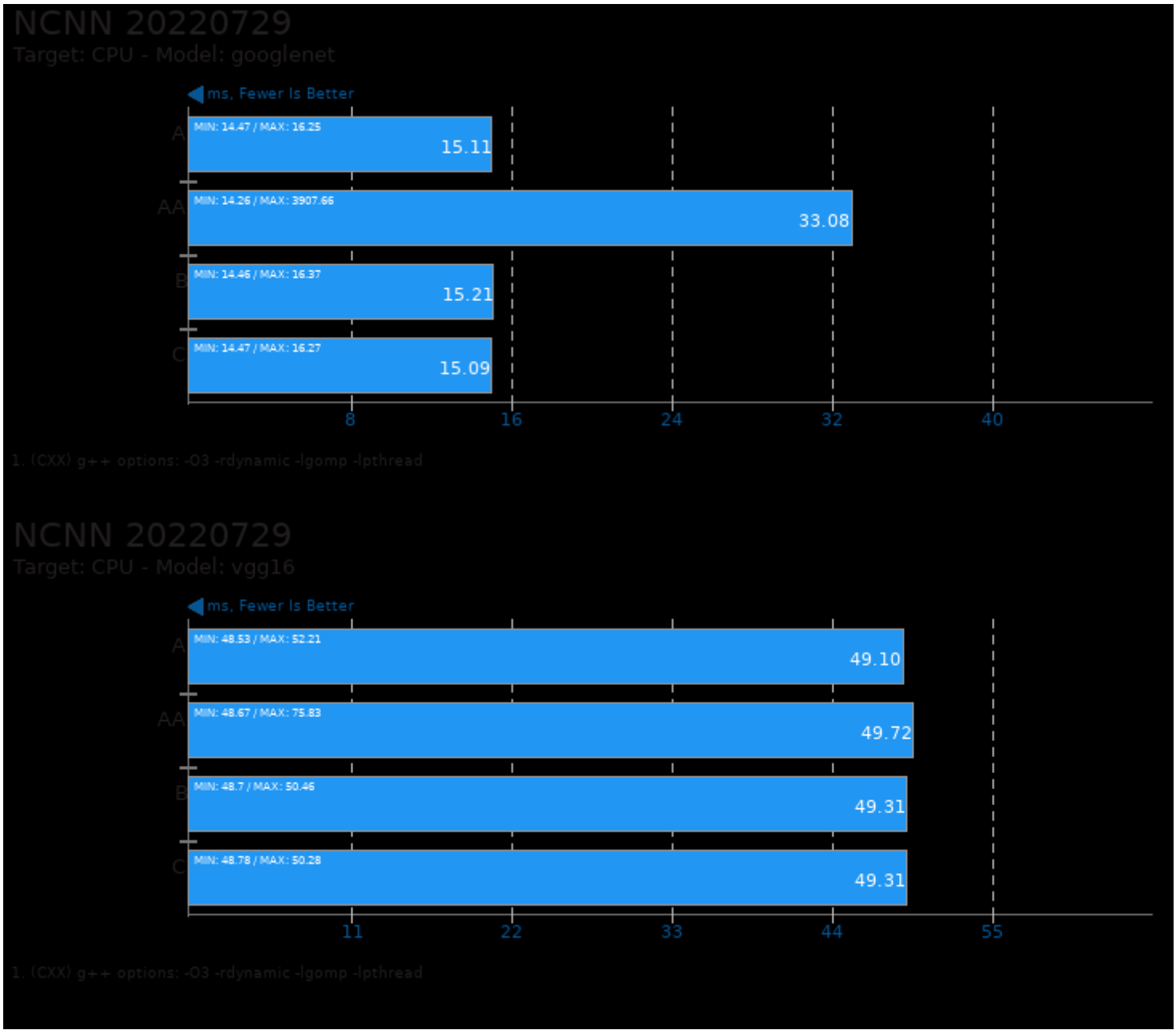

Mobile Neural Network 2.1
Model: MobileNetV2_224
ms, Fewer Is Better
A
MIN: 3.96 / MAX: 5.11
4.002
AA
MIN: 4.18 / MAX: 114.69
4.950
B
MIN: 4.29 / MAX: 4.88
4.336
C
MIN: 4.32 / MAX: 4.77
4.364
1.1138
2.2276
3.3414
4.4552
5.569
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr
Mobile Neural Network 2.1
Model: mobilenet-v1-1.0
ms, Fewer Is Better
A
MIN: 5.08 / MAX: 7.3
5.205
AA
MIN: 5.14 / MAX: 33.46
5.883
B
MIN: 5.25 / MAX: 5.82
5.336
C
MIN: 5.18 / MAX: 5.73
5.282
1.3237
2.6474
3.9711
5.2948
6.6185
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr

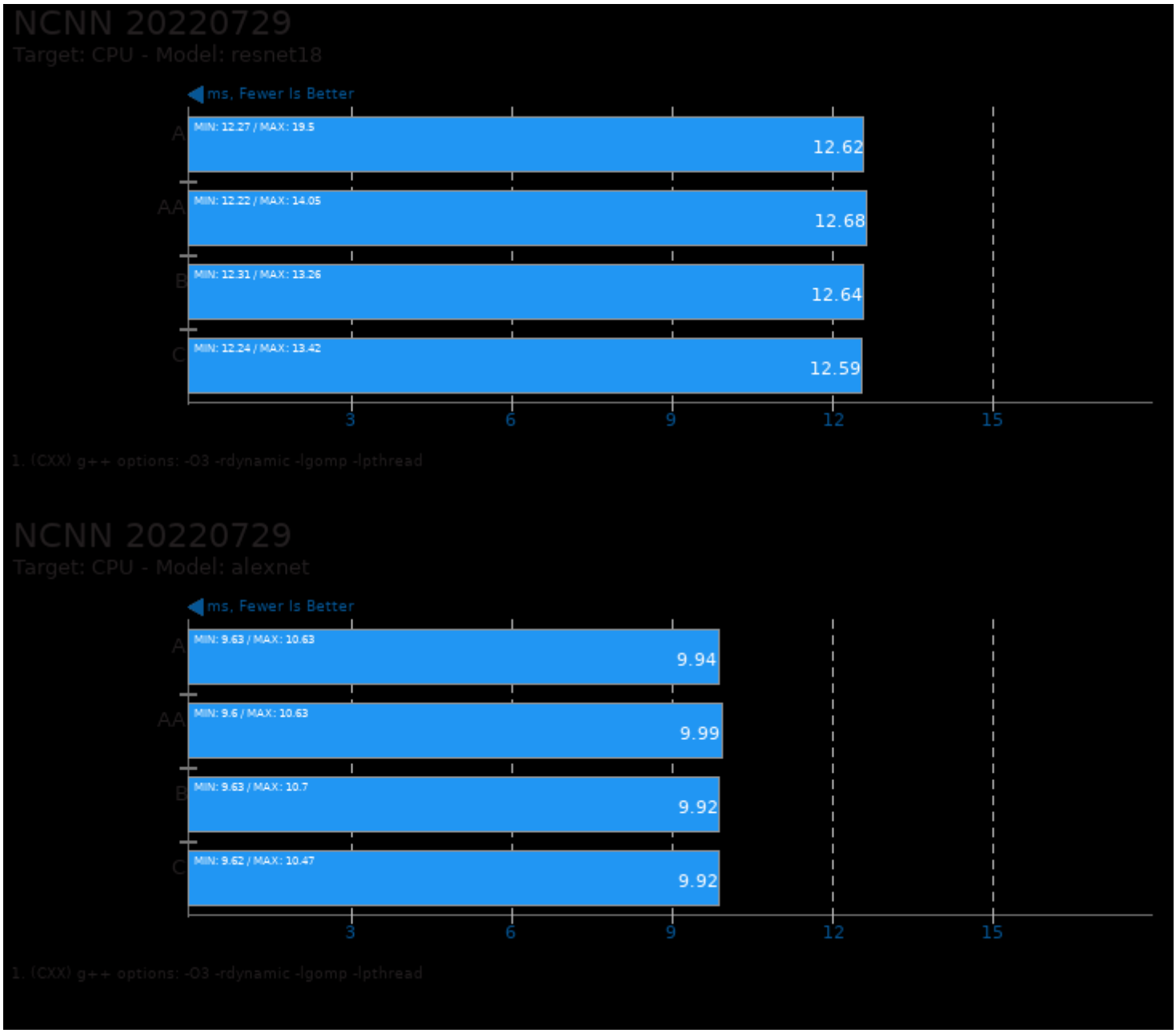

Mobile Neural Network 2.1
Model: inception-v3
ms, Fewer Is Better
A
MIN: 28.07 / MAX: 37.02
28.56
AA
MIN: 28.53 / MAX: 68.86
29.87
B
MIN: 27.9 / MAX: 37.14
28.38
C
MIN: 28.85 / MAX: 37.57
29.31
7
14
21
28
35
1. (CXX) g++ options: -std=c++11 -O3 -fvisibility=hidden -fomit-frame-pointer -fstrict-aliasing -ffunction-sections -fdata-sections -ffast-math -fno-rtti -fr
NCNN 20220729
Target: CPU - Model: mobilenet
ms, Fewer Is Better
A
MIN: 13.8 / MAX: 14.44
14.02
AA
MIN: 14.02 / MAX: 14.79
14.17
B
MIN: 13.85 / MAX: 14.54
14.05
C
MIN: 14.01 / MAX: 14.71
14.18
4
8
12
16
20
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

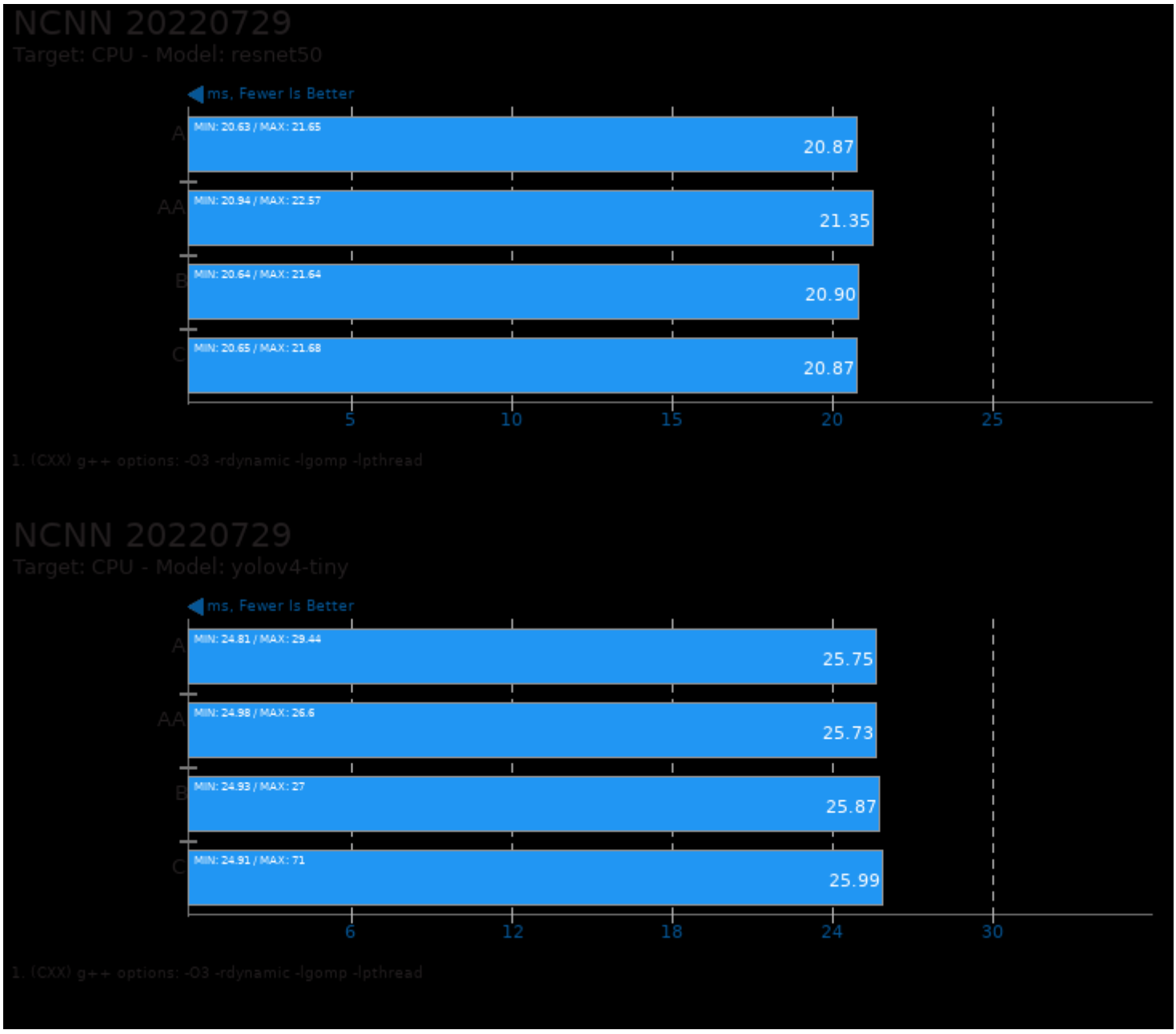

NCNN 20220729
Target: CPU-v2-v2 - Model: mobilenet-v2
ms, Fewer Is Better
A
MIN: 4.57 / MAX: 5.41
4.63
AA
MIN: 4.58 / MAX: 5.2
4.65
B
MIN: 4.58 / MAX: 5.19
4.64
C
MIN: 4.62 / MAX: 5.29
4.69
1.0553
2.1106
3.1659
4.2212
5.2765
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU-v3-v3 - Model: mobilenet-v3
ms, Fewer Is Better
A
MIN: 3.98 / MAX: 5.9
4.06
AA
MIN: 4.02 / MAX: 4.71
4.09
B
MIN: 4.01 / MAX: 4.53
4.07
C
MIN: 4.04 / MAX: 4.56
4.09
0.9203
1.8406
2.7609
3.6812
4.6015
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

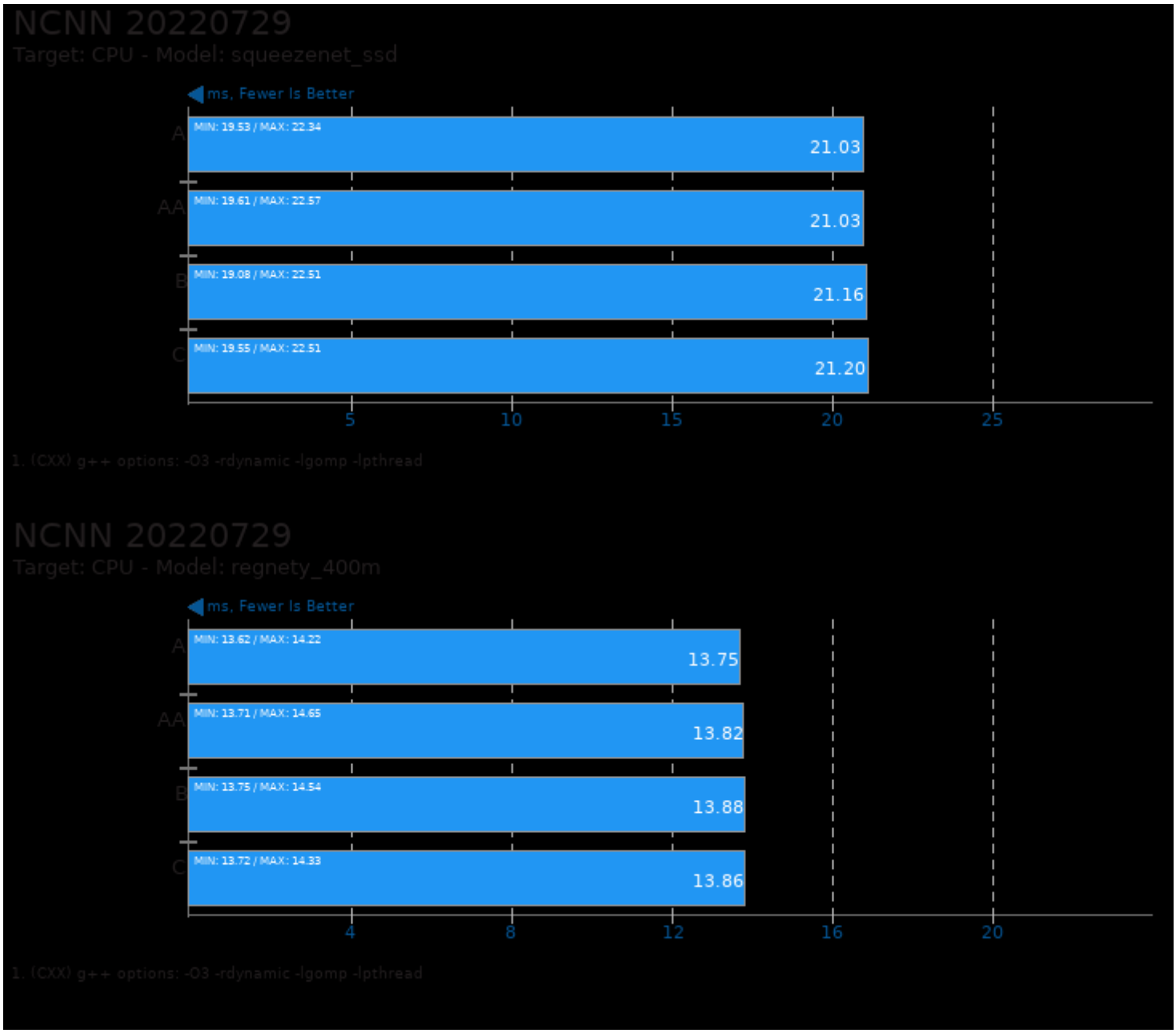

NCNN 20220729
Target: CPU - Model: shufflenet-v2
ms, Fewer Is Better
A
MIN: 4.77 / MAX: 5.08
4.84
AA
MIN: 4.83 / MAX: 5.25
4.87
B
MIN: 4.79 / MAX: 5.16
4.87
C
MIN: 4.82 / MAX: 5.25
4.87
1.0958
2.1916
3.2874
4.3832
5.479
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: mnasnet
ms, Fewer Is Better
A
MIN: 4.12 / MAX: 4.48
4.18
AA
MIN: 4.17 / MAX: 4.56
4.21
B
MIN: 4.14 / MAX: 4.65
4.19
C
MIN: 4.17 / MAX: 4.52
4.22
0.9495
1.899
2.8485
3.798
4.7475
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

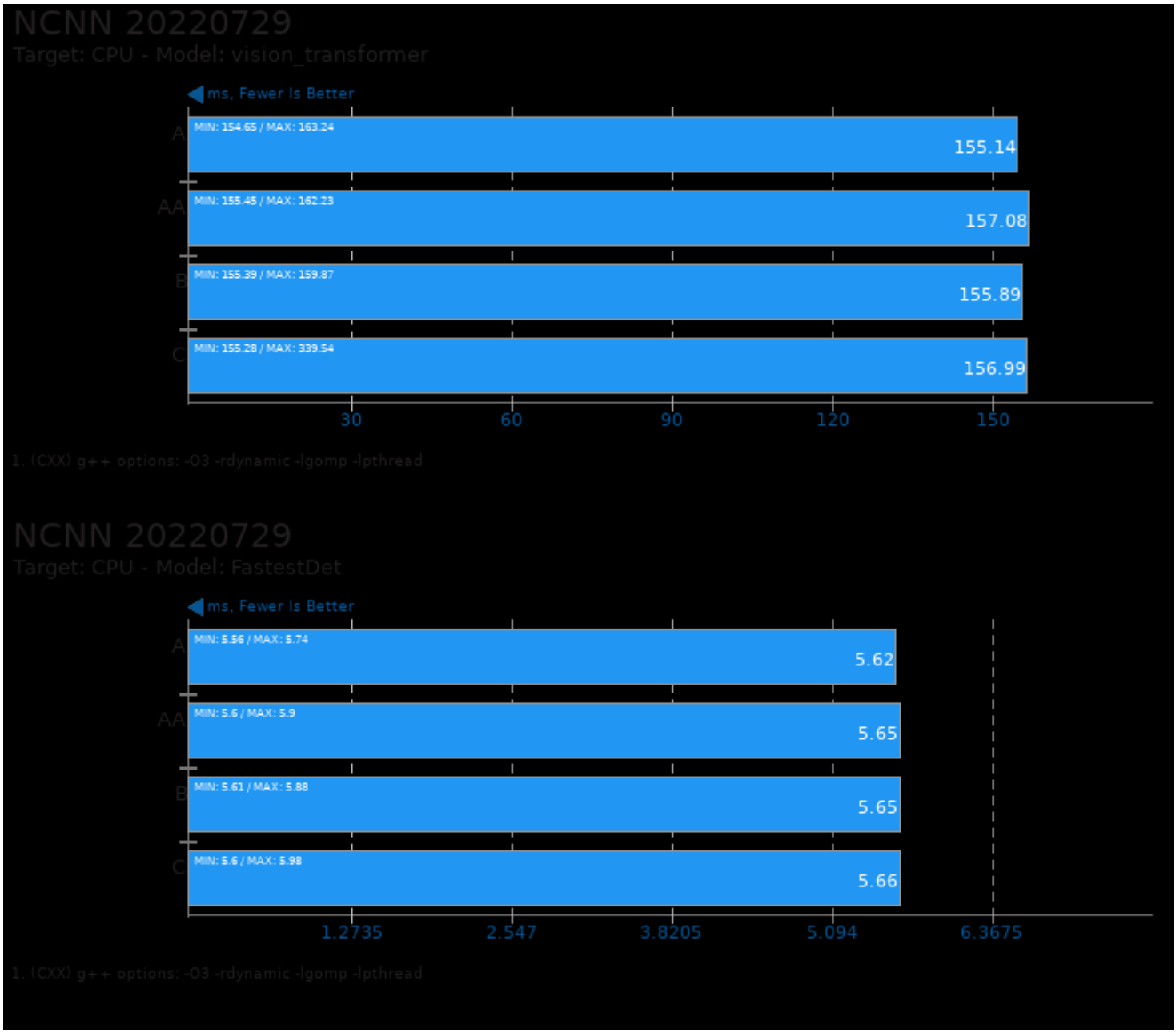

NCNN 20220729
Target: CPU - Model: efficientnet-b0
ms, Fewer Is Better
A
MIN: 6.4 / MAX: 6.98
6.45
AA
MIN: 6.45 / MAX: 7.26
6.52
B
MIN: 6.42 / MAX: 7.1
6.48
C
MIN: 6.43 / MAX: 7.42
6.50
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: blazeface
ms, Fewer Is Better
A
MIN: 2.07 / MAX: 2.36
2.09
AA
MIN: 2.08 / MAX: 2.4
2.10
B
MIN: 2.09 / MAX: 2.46
2.11
C
MIN: 2.09 / MAX: 2.44
2.12
0.477
0.954
1.431
1.908
2.385
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

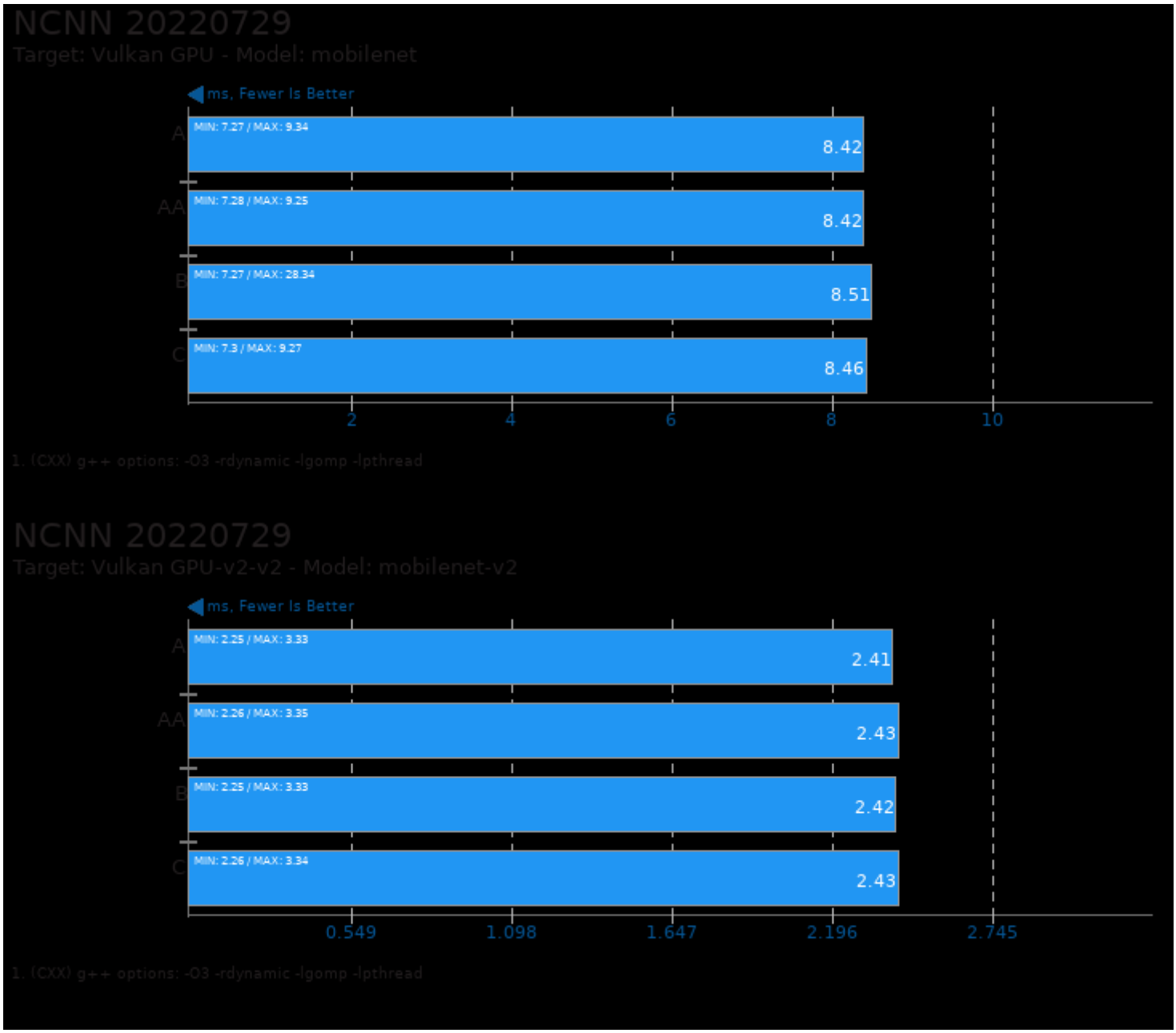

NCNN 20220729
Target: CPU - Model: googlenet
ms, Fewer Is Better
A
MIN: 14.47 / MAX: 16.25
15.11
AA
MIN: 14.26 / MAX: 3907.66
33.08
B
MIN: 14.46 / MAX: 16.37
15.21
C
MIN: 14.47 / MAX: 16.27
15.09
8
16
24
32
40
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: vgg16
ms, Fewer Is Better
A
MIN: 48.53 / MAX: 52.21
49.10
AA
MIN: 48.67 / MAX: 75.83
49.72
B
MIN: 48.7 / MAX: 50.46
49.31
C
MIN: 48.78 / MAX: 50.28
49.31
11
22
33
44
55
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

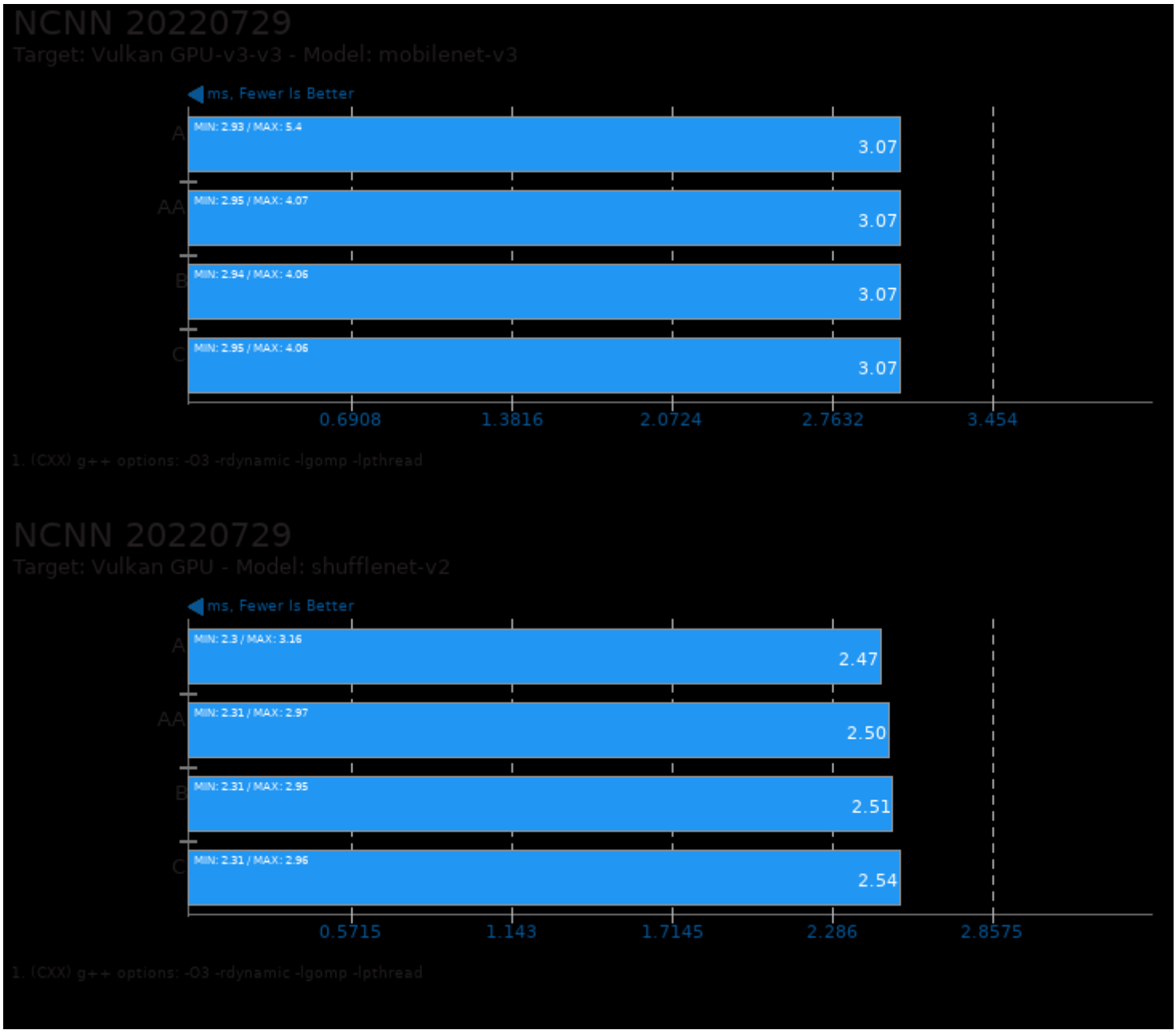

NCNN 20220729
Target: CPU - Model: resnet18
ms, Fewer Is Better
A
MIN: 12.27 / MAX: 19.5
12.62
AA
MIN: 12.22 / MAX: 14.05
12.68
B
MIN: 12.31 / MAX: 13.26
12.64
C
MIN: 12.24 / MAX: 13.42
12.59
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: alexnet
ms, Fewer Is Better
A
MIN: 9.63 / MAX: 10.63
9.94
AA
MIN: 9.6 / MAX: 10.63
9.99
B
MIN: 9.63 / MAX: 10.7
9.92
C
MIN: 9.62 / MAX: 10.47
9.92
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

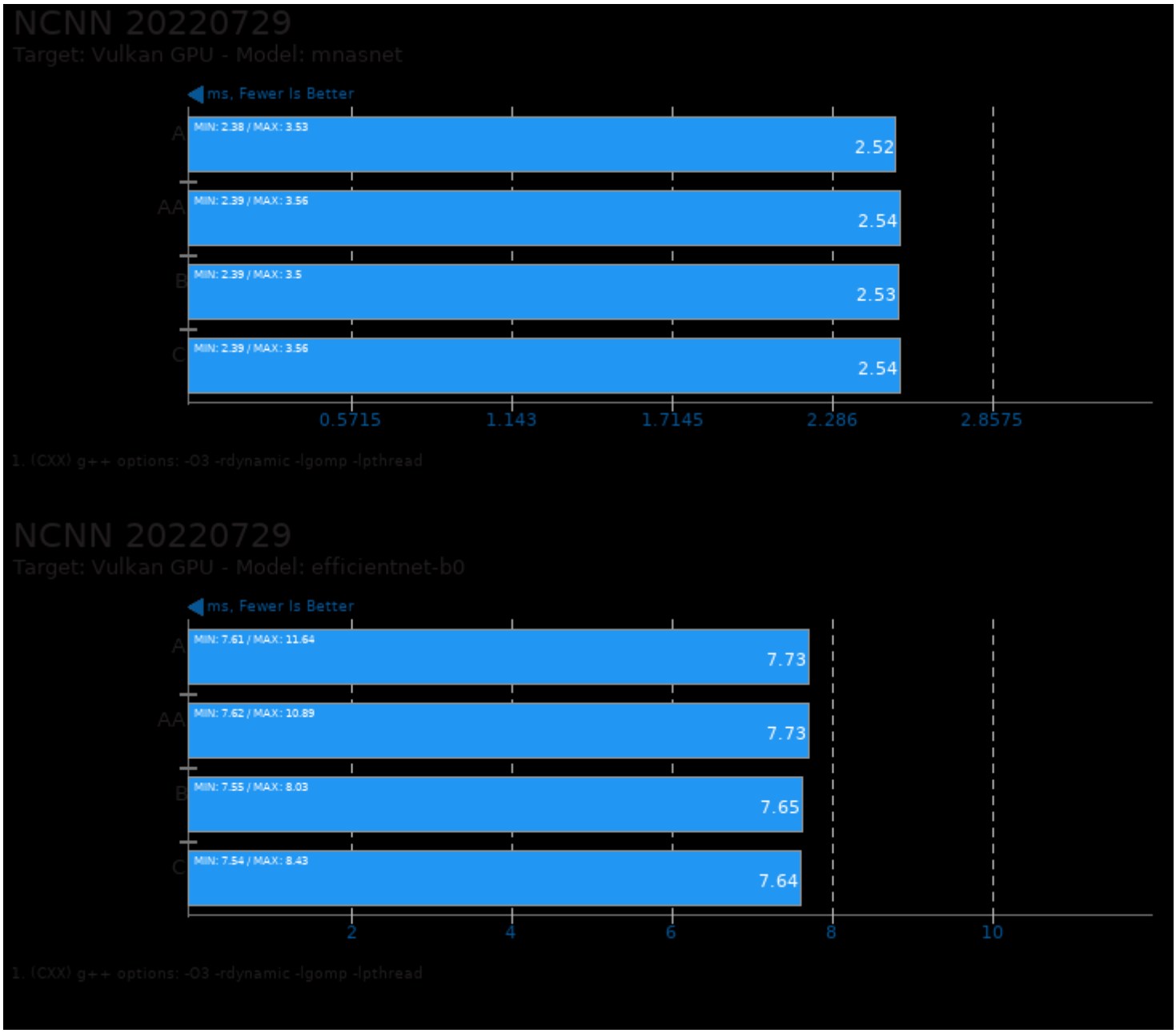

NCNN 20220729
Target: CPU - Model: resnet50
ms, Fewer Is Better
A
MIN: 20.63 / MAX: 21.65
20.87
AA
MIN: 20.94 / MAX: 22.57
21.35
B
MIN: 20.64 / MAX: 21.64
20.90
C
MIN: 20.65 / MAX: 21.68
20.87
5
10
15
20
25
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: yolov4-tiny
ms, Fewer Is Better
A
MIN: 24.81 / MAX: 29.44
25.75
AA
MIN: 24.98 / MAX: 26.6
25.73
B
MIN: 24.93 / MAX: 27
25.87
C
MIN: 24.91 / MAX: 71
25.99
6
12
18
24
30
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

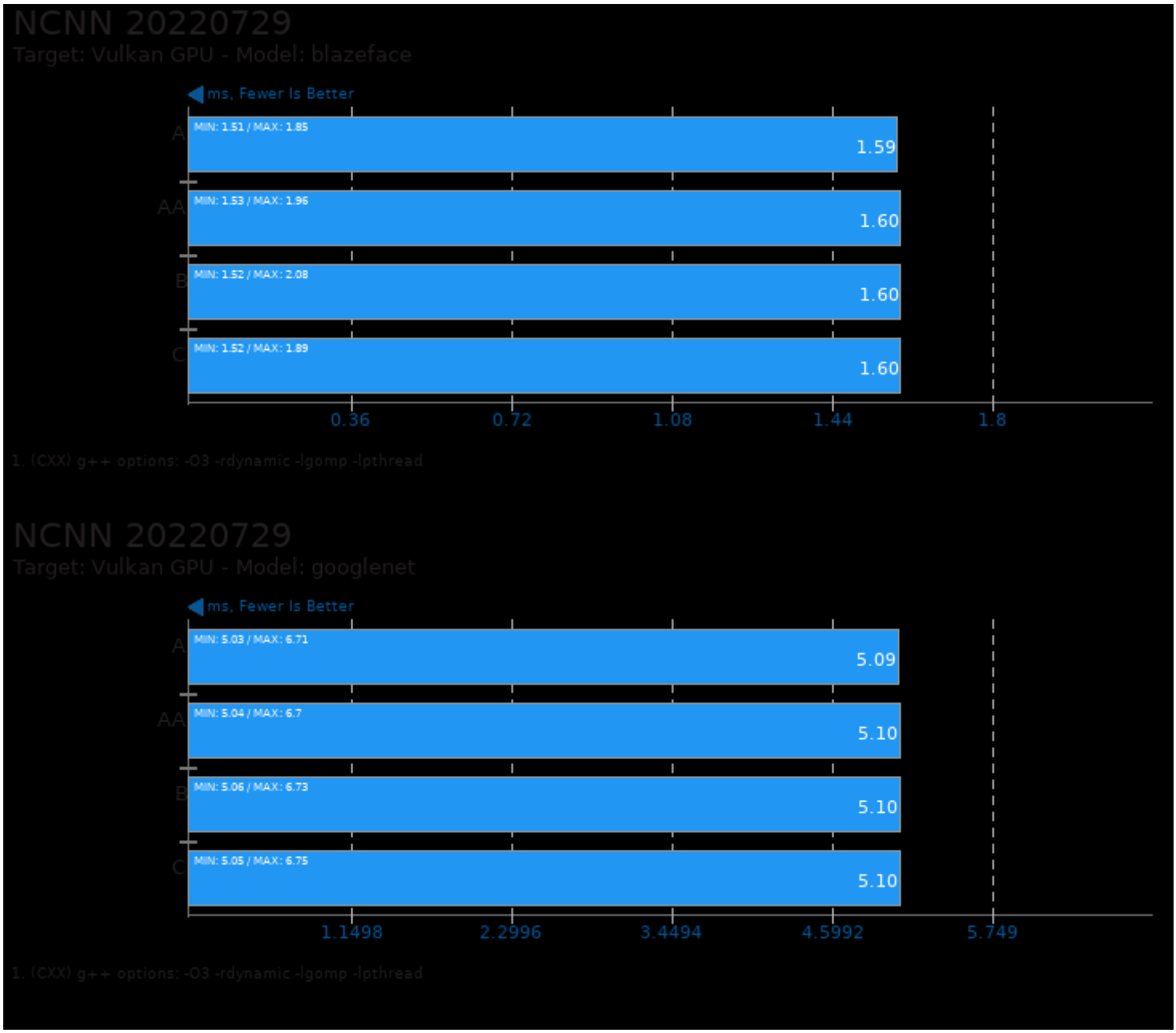

NCNN 20220729
Target: CPU - Model: squeezenet_ssd
ms, Fewer Is Better
A
MIN: 19.53 / MAX: 22.34
21.03
AA
MIN: 19.61 / MAX: 22.57
21.03
B
MIN: 19.08 / MAX: 22.51
21.16
C
MIN: 19.55 / MAX: 22.51
21.20
5
10
15
20
25
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: regnety_400m
ms, Fewer Is Better
A
MIN: 13.62 / MAX: 14.22
13.75
AA
MIN: 13.71 / MAX: 14.65
13.82
B
MIN: 13.75 / MAX: 14.54
13.88
C
MIN: 13.72 / MAX: 14.33
13.86
4
8
12
16
20
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

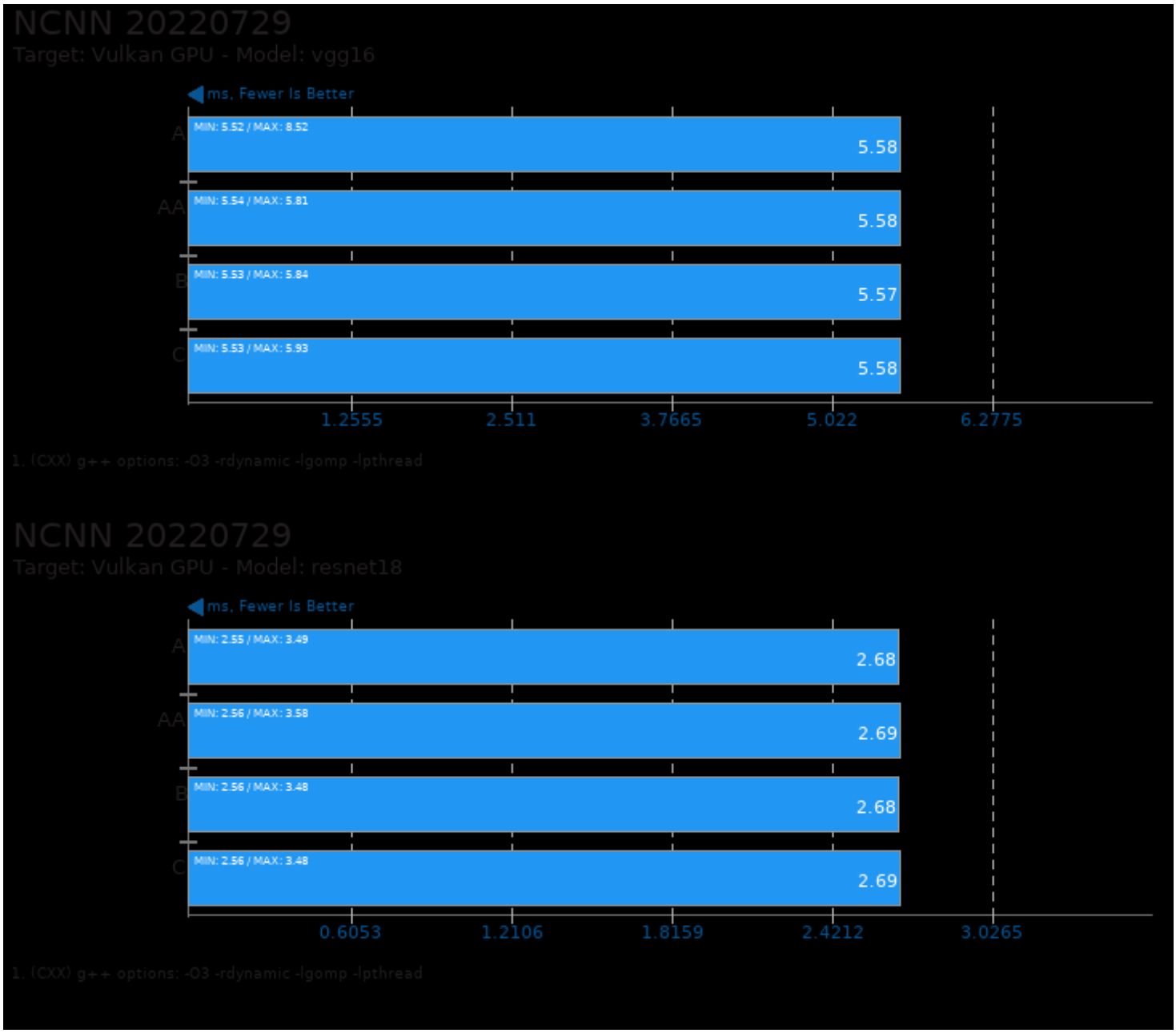

NCNN 20220729
Target: CPU - Model: vision_transformer
ms, Fewer Is Better
A
MIN: 154.65 / MAX: 163.24
155.14
AA
MIN: 155.45 / MAX: 162.23
157.08
B
MIN: 155.39 / MAX: 159.87
155.89
C
MIN: 155.28 / MAX: 339.54
156.99
30
60
90
120
150
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: CPU - Model: FastestDet
ms, Fewer Is Better
A
MIN: 5.56 / MAX: 5.74
5.62
AA
MIN: 5.6 / MAX: 5.9
5.65
B
MIN: 5.61 / MAX: 5.88
5.65
C
MIN: 5.6 / MAX: 5.98
5.66
1.2735
2.547
3.8205
5.094
6.3675
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

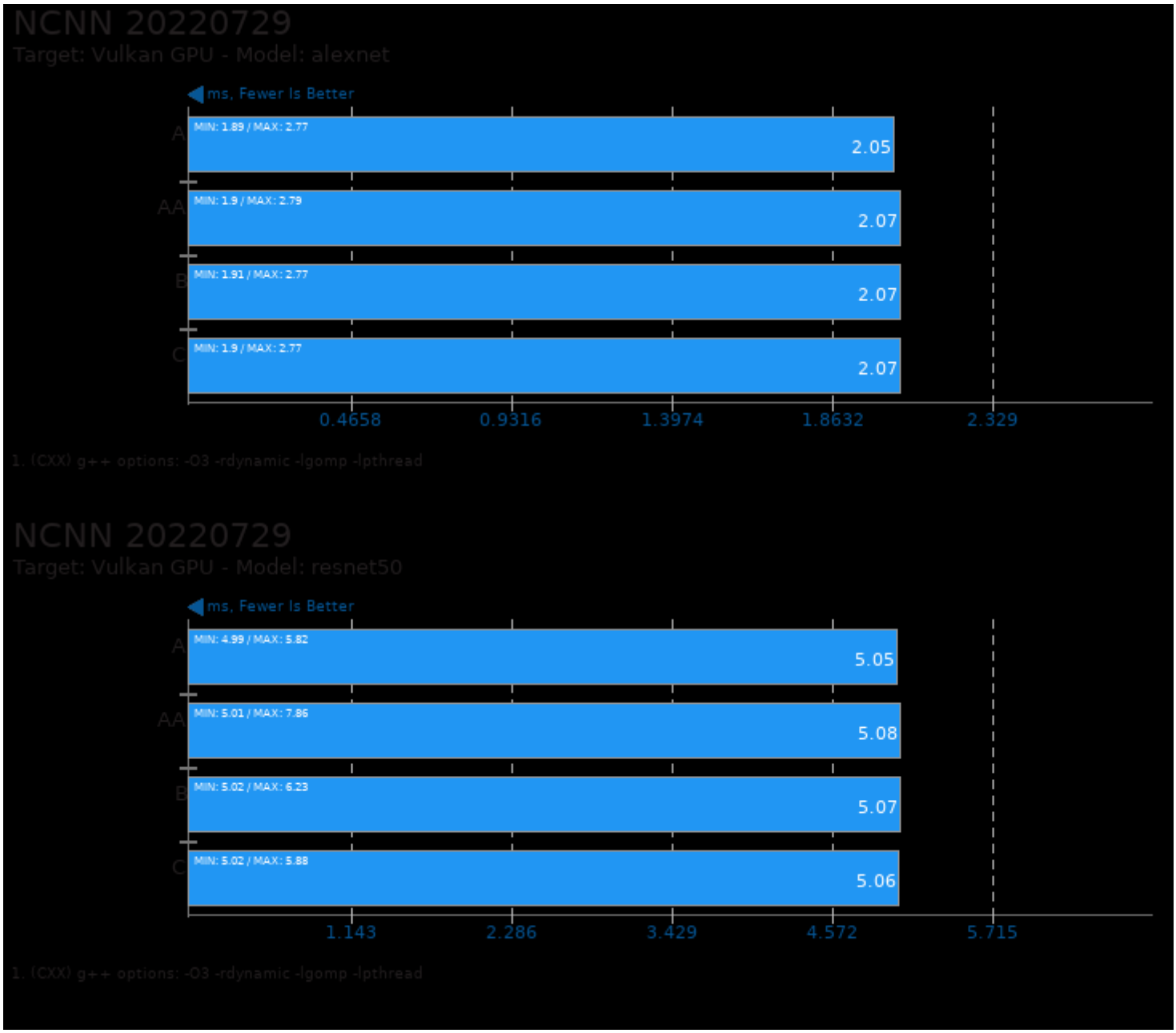

NCNN 20220729
Target: Vulkan GPU - Model: mobilenet
ms, Fewer Is Better
A
MIN: 7.27 / MAX: 9.34
8.42
AA
MIN: 7.28 / MAX: 9.25
8.42
B
MIN: 7.27 / MAX: 28.34
8.51
C
MIN: 7.3 / MAX: 9.27
8.46
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU-v2-v2 - Model: mobilenet-v2
ms, Fewer Is Better
A
MIN: 2.25 / MAX: 3.33
2.41
AA
MIN: 2.26 / MAX: 3.35
2.43
B
MIN: 2.25 / MAX: 3.33
2.42
C
MIN: 2.26 / MAX: 3.34
2.43
0.549
1.098
1.647
2.196
2.745
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

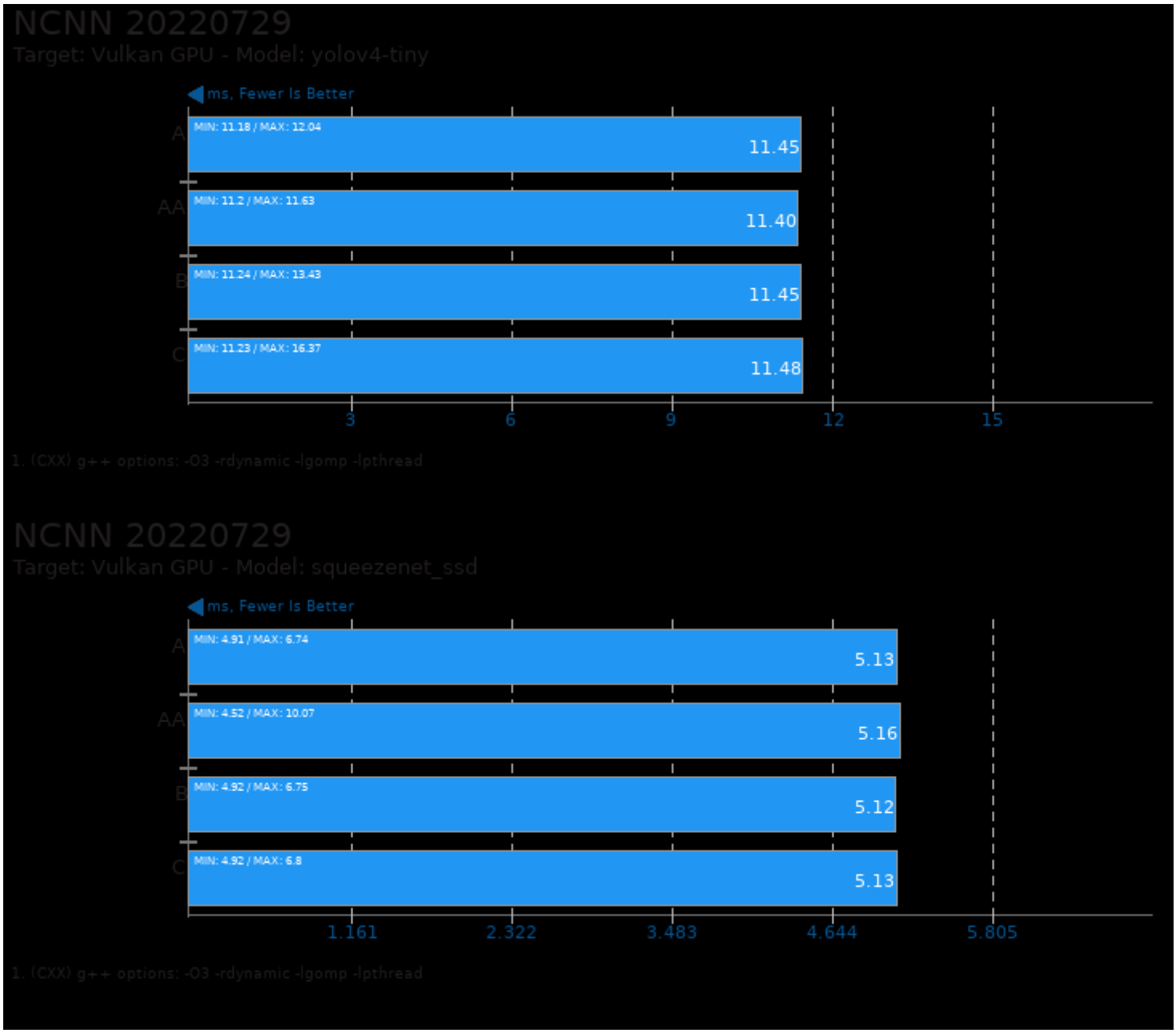

NCNN 20220729
Target: Vulkan GPU-v3-v3 - Model: mobilenet-v3
ms, Fewer Is Better
A
MIN: 2.93 / MAX: 5.4
3.07
AA
MIN: 2.95 / MAX: 4.07
3.07
B
MIN: 2.94 / MAX: 4.06
3.07
C
MIN: 2.95 / MAX: 4.06
3.07
0.6908
1.3816
2.0724
2.7632
3.454
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: shufflenet-v2
ms, Fewer Is Better
A
MIN: 2.3 / MAX: 3.16
2.47
AA
MIN: 2.31 / MAX: 2.97
2.50
B
MIN: 2.31 / MAX: 2.95
2.51
C
MIN: 2.31 / MAX: 2.96
2.54
0.5715
1.143
1.7145
2.286
2.8575
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

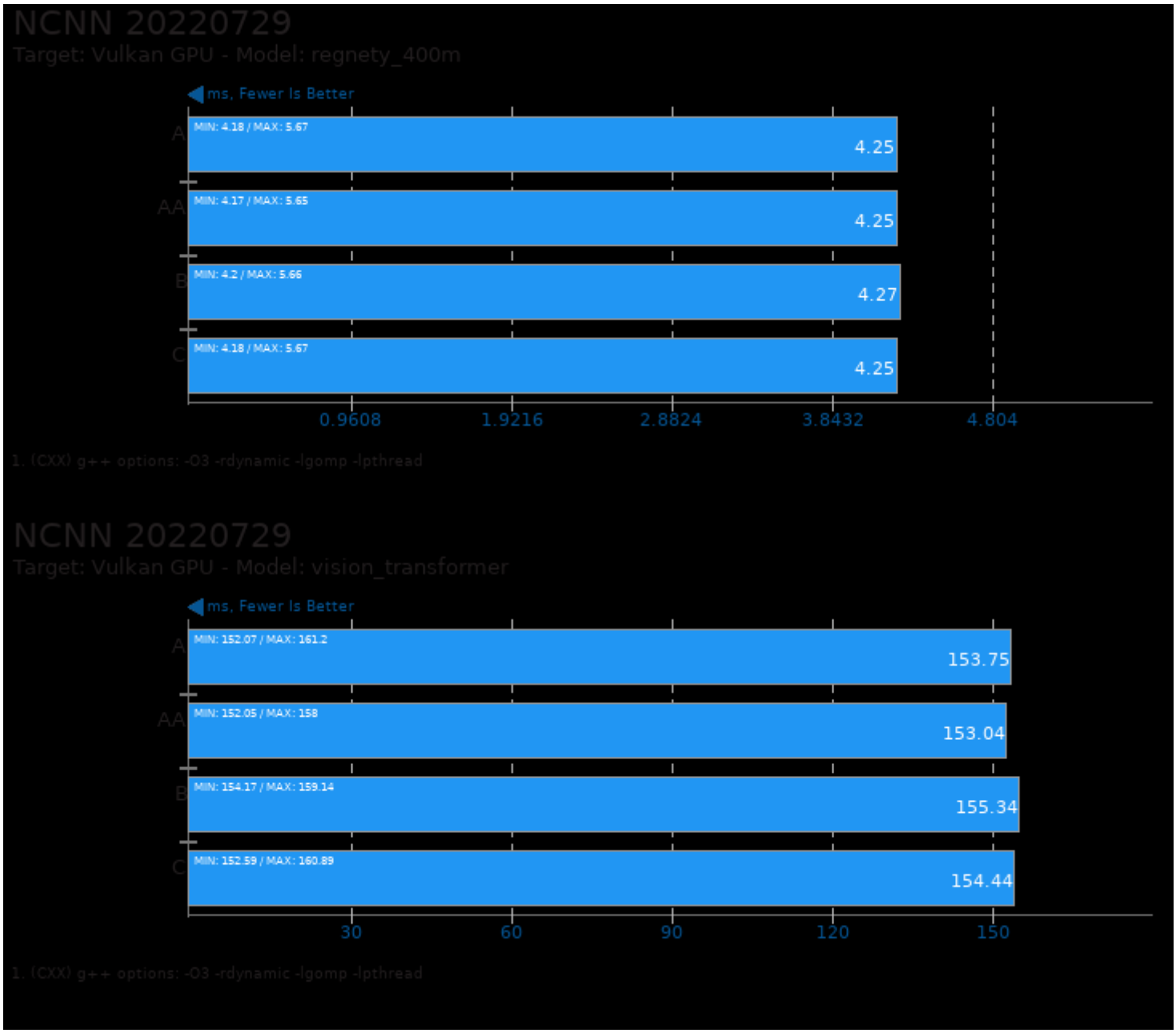

NCNN 20220729
Target: Vulkan GPU - Model: mnasnet
ms, Fewer Is Better
A
MIN: 2.38 / MAX: 3.53
2.52
AA
MIN: 2.39 / MAX: 3.56
2.54
B
MIN: 2.39 / MAX: 3.5
2.53
C
MIN: 2.39 / MAX: 3.56
2.54
0.5715
1.143
1.7145
2.286
2.8575
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: efficientnet-b0
ms, Fewer Is Better
A
MIN: 7.61 / MAX: 11.64
7.73
AA
MIN: 7.62 / MAX: 10.89
7.73
B
MIN: 7.55 / MAX: 8.03
7.65
C
MIN: 7.54 / MAX: 8.43
7.64
2
4
6
8
10
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread


NCNN 20220729
Target: Vulkan GPU - Model: blazeface
ms, Fewer Is Better
A
MIN: 1.51 / MAX: 1.85
1.59
AA
MIN: 1.53 / MAX: 1.96
1.60
B
MIN: 1.52 / MAX: 2.08
1.60
C
MIN: 1.52 / MAX: 1.89
1.60
0.36
0.72
1.08
1.44
1.8
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: googlenet
ms, Fewer Is Better
A
MIN: 5.03 / MAX: 6.71
5.09
AA
MIN: 5.04 / MAX: 6.7
5.10
B
MIN: 5.06 / MAX: 6.73
5.10
C
MIN: 5.05 / MAX: 6.75
5.10
1.1498
2.2996
3.4494
4.5992
5.749
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread


NCNN 20220729
Target: Vulkan GPU - Model: vgg16
ms, Fewer Is Better
A
MIN: 5.52 / MAX: 8.52
5.58
AA
MIN: 5.54 / MAX: 5.81
5.58
B
MIN: 5.53 / MAX: 5.84
5.57
C
MIN: 5.53 / MAX: 5.93
5.58
1.2555
2.511
3.7665
5.022
6.2775
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: resnet18
ms, Fewer Is Better
A
MIN: 2.55 / MAX: 3.49
2.68
AA
MIN: 2.56 / MAX: 3.58
2.69
B
MIN: 2.56 / MAX: 3.48
2.68
C
MIN: 2.56 / MAX: 3.48
2.69
0.6053
1.2106
1.8159
2.4212
3.0265
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

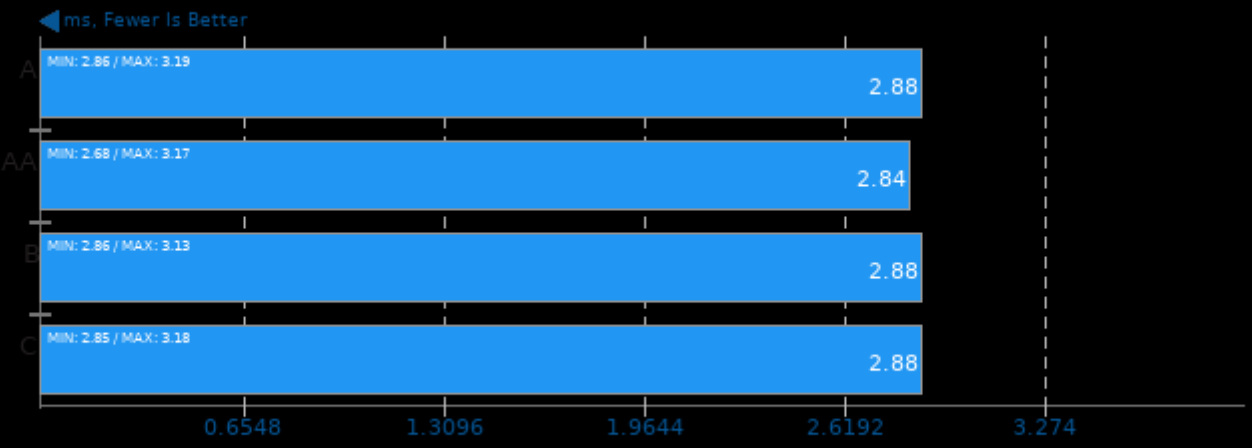

NCNN 20220729
Target: Vulkan GPU - Model: alexnet
ms, Fewer Is Better
A
MIN: 1.89 / MAX: 2.77
2.05
AA
MIN: 1.9 / MAX: 2.79
2.07
B
MIN: 1.91 / MAX: 2.77
2.07
C
MIN: 1.9 / MAX: 2.77
2.07
0.4658
0.9316
1.3974
1.8632
2.329
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: resnet50
ms, Fewer Is Better
A
MIN: 4.99 / MAX: 5.82
5.05
AA
MIN: 5.01 / MAX: 7.86
5.08
B
MIN: 5.02 / MAX: 6.23
5.07
C
MIN: 5.02 / MAX: 5.88
5.06
1.143
2.286
3.429
4.572
5.715
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread


NCNN 20220729
Target: Vulkan GPU - Model: yolov4-tiny
ms, Fewer Is Better
A
MIN: 11.18 / MAX: 12.04
11.45
AA
MIN: 11.2 / MAX: 11.63
11.40
B
MIN: 11.24 / MAX: 13.43
11.45
C
MIN: 11.23 / MAX: 16.37
11.48
3
6
9
12
15
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: squeezenet_ssd
ms, Fewer Is Better
A
MIN: 4.91 / MAX: 6.74
5.13
AA
MIN: 4.52 / MAX: 10.07
5.16
B
MIN: 4.92 / MAX: 6.75
5.12
C
MIN: 4.92 / MAX: 6.8
5.13
1.161
2.322
3.483
4.644
5.805
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread


NCNN 20220729
Target: Vulkan GPU - Model: regnety_400m
ms, Fewer Is Better
A
MIN: 4.18 / MAX: 5.67
4.25
AA
MIN: 4.17 / MAX: 5.65
4.25
B
MIN: 4.2 / MAX: 5.66
4.27
C
MIN: 4.18 / MAX: 5.67
4.25
0.9608
1.9216
2.8824
3.8432
4.804
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread
NCNN 20220729
Target: Vulkan GPU - Model: vision_transformer
ms, Fewer Is Better
A
MIN: 152.07 / MAX: 161.2
153.75
AA
MIN: 152.05 / MAX: 158
153.04
B
MIN: 154.17 / MAX: 159.14
155.34
C
MIN: 152.59 / MAX: 160.89
154.44
30
60
90
120
150
1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20220729

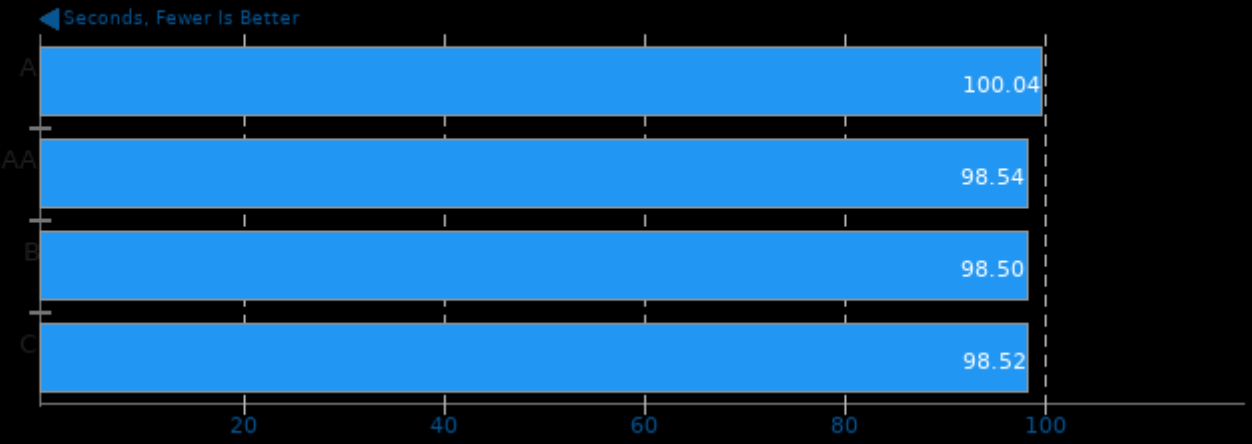
Target: Vulkan GPU - Model: FastestDet



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

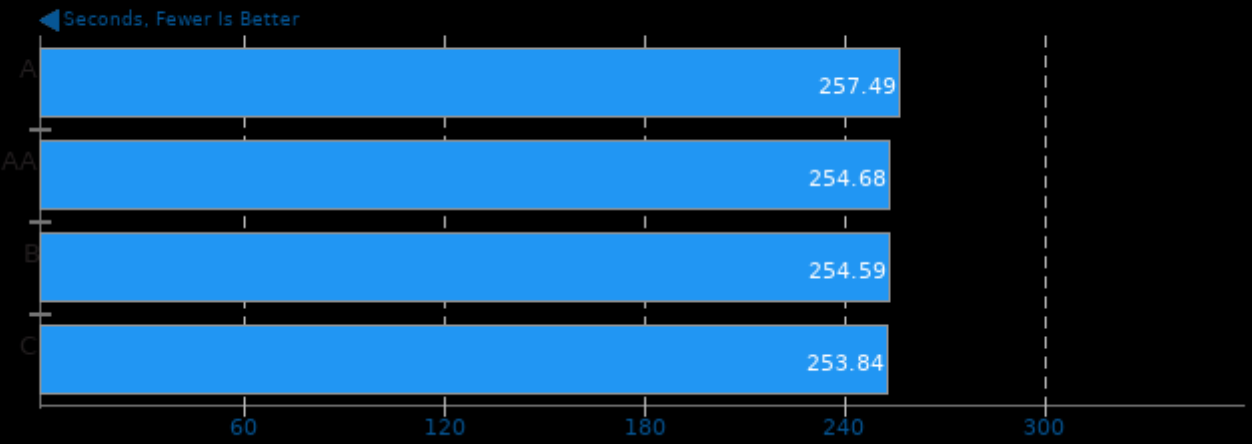
Blender 3.3

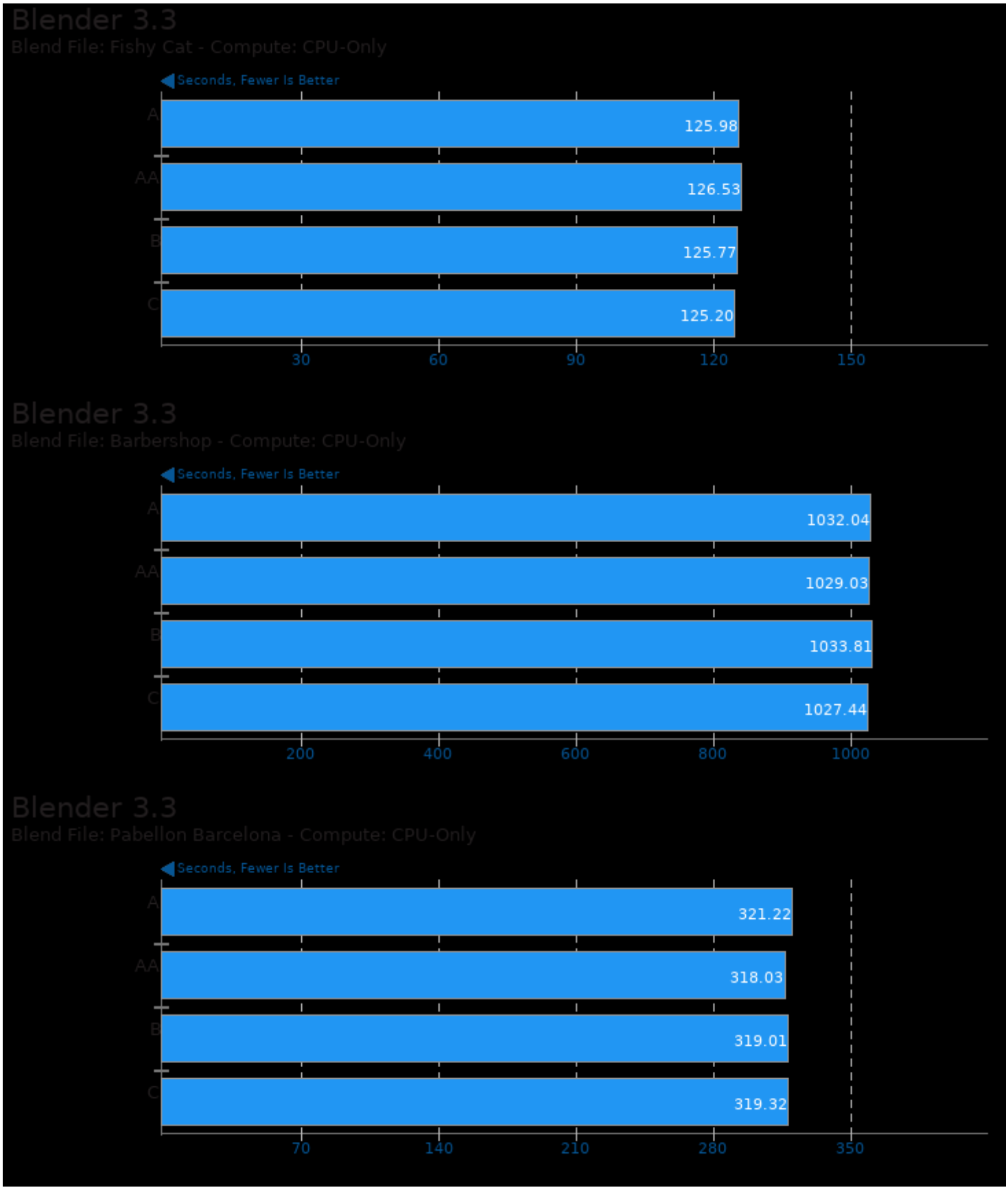
Blend File: BMW27 - Compute: CPU-Only

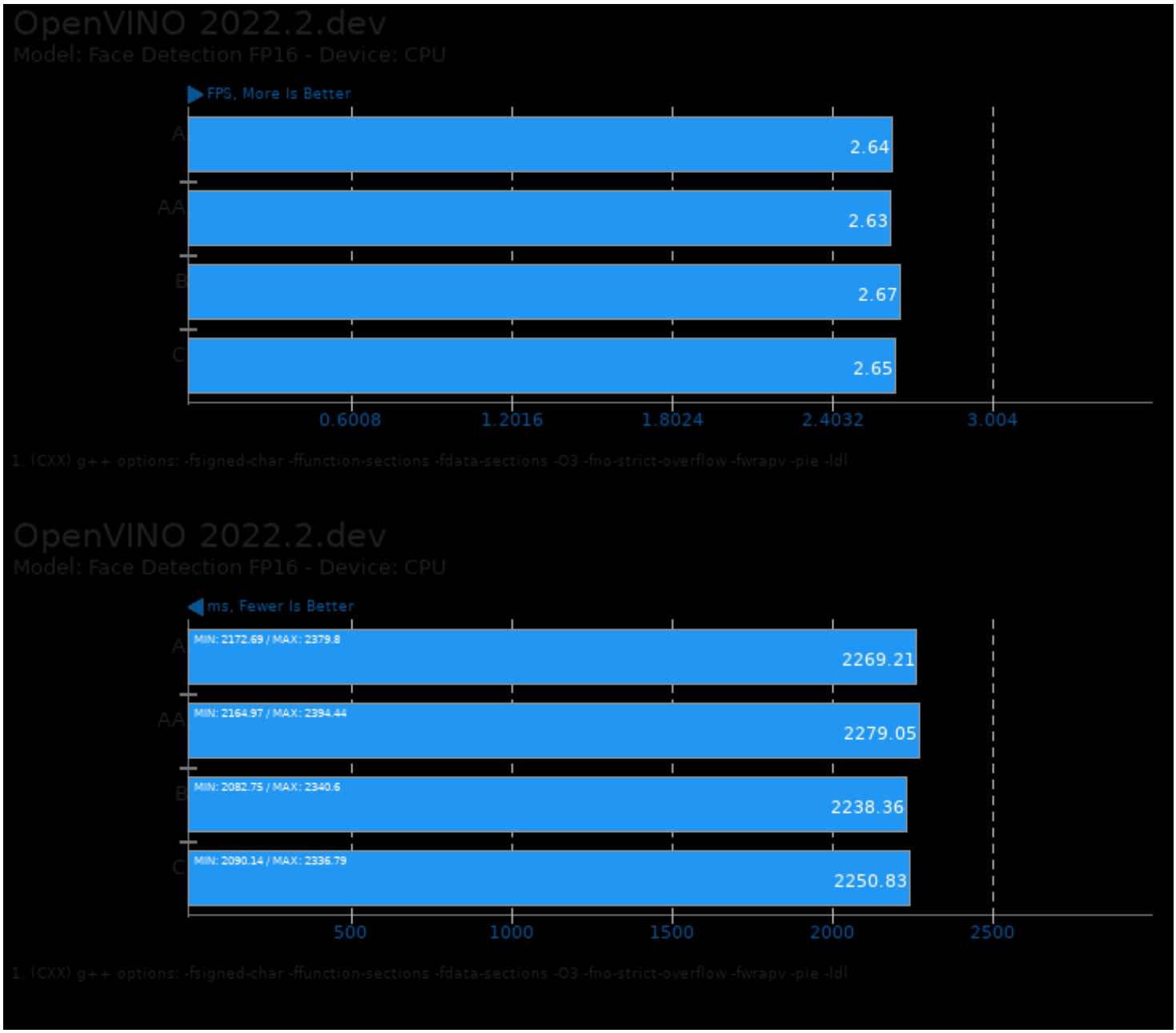


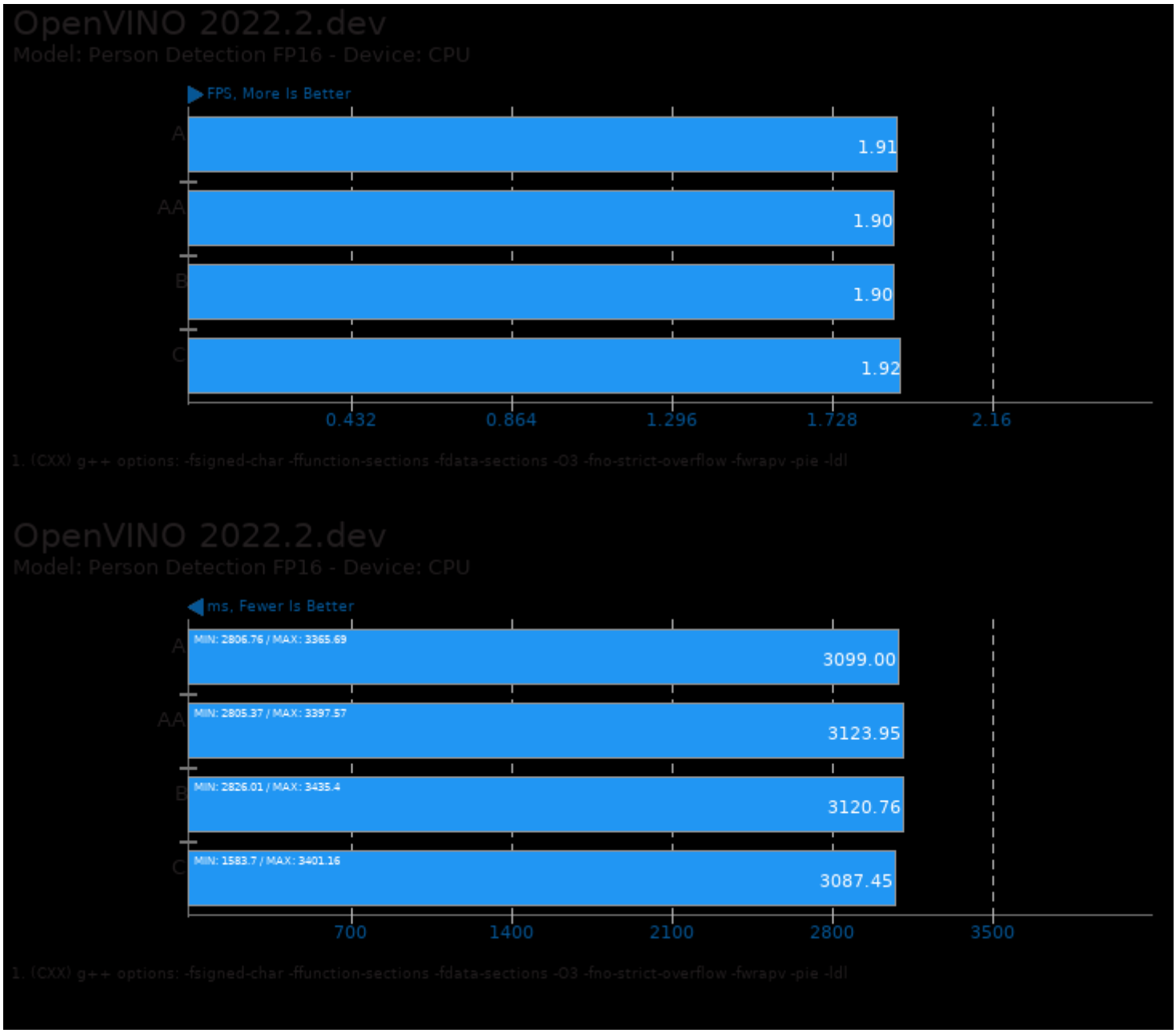
Blender 3.3

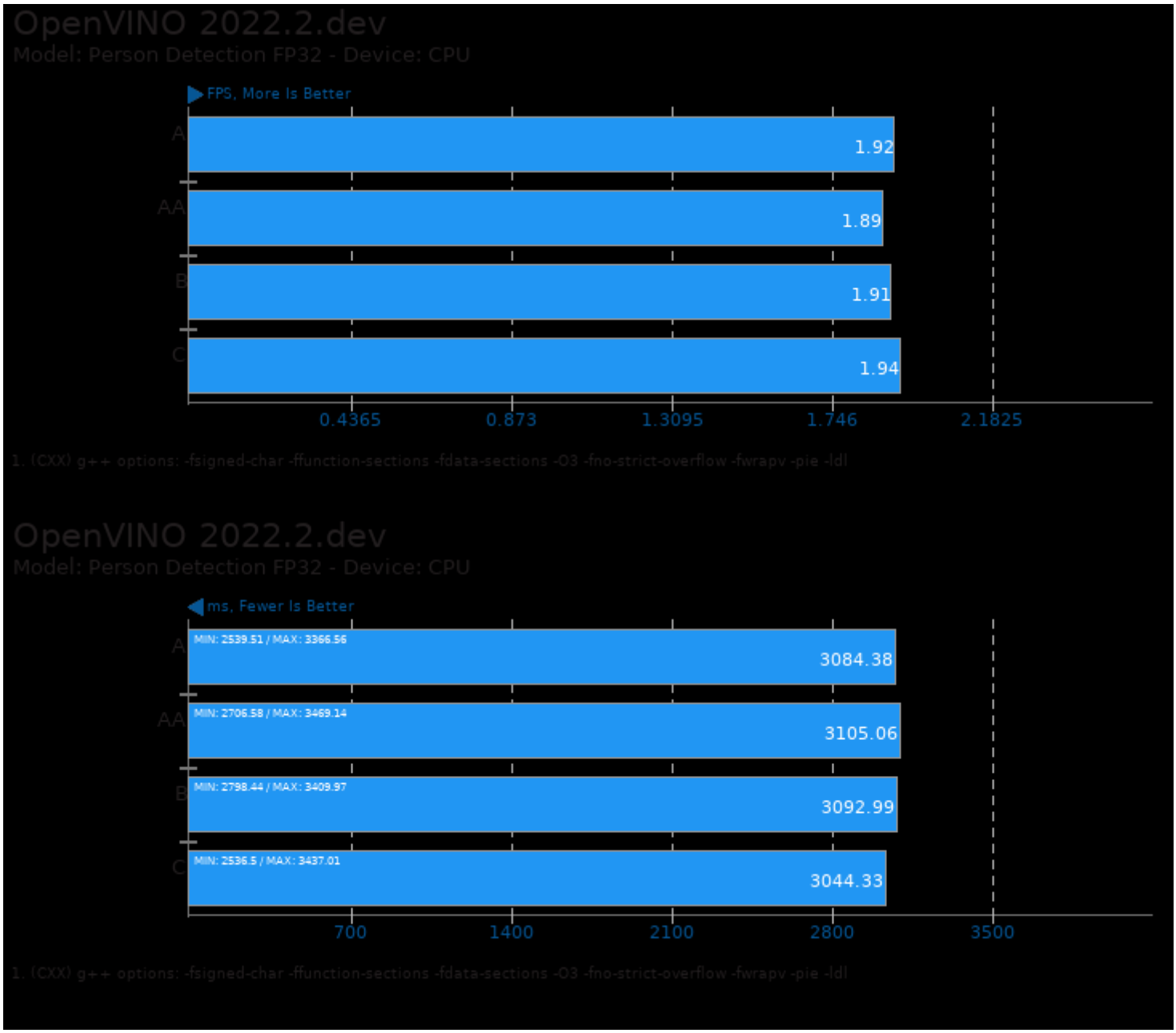
Blend File: Classroom - Compute: CPU-Only

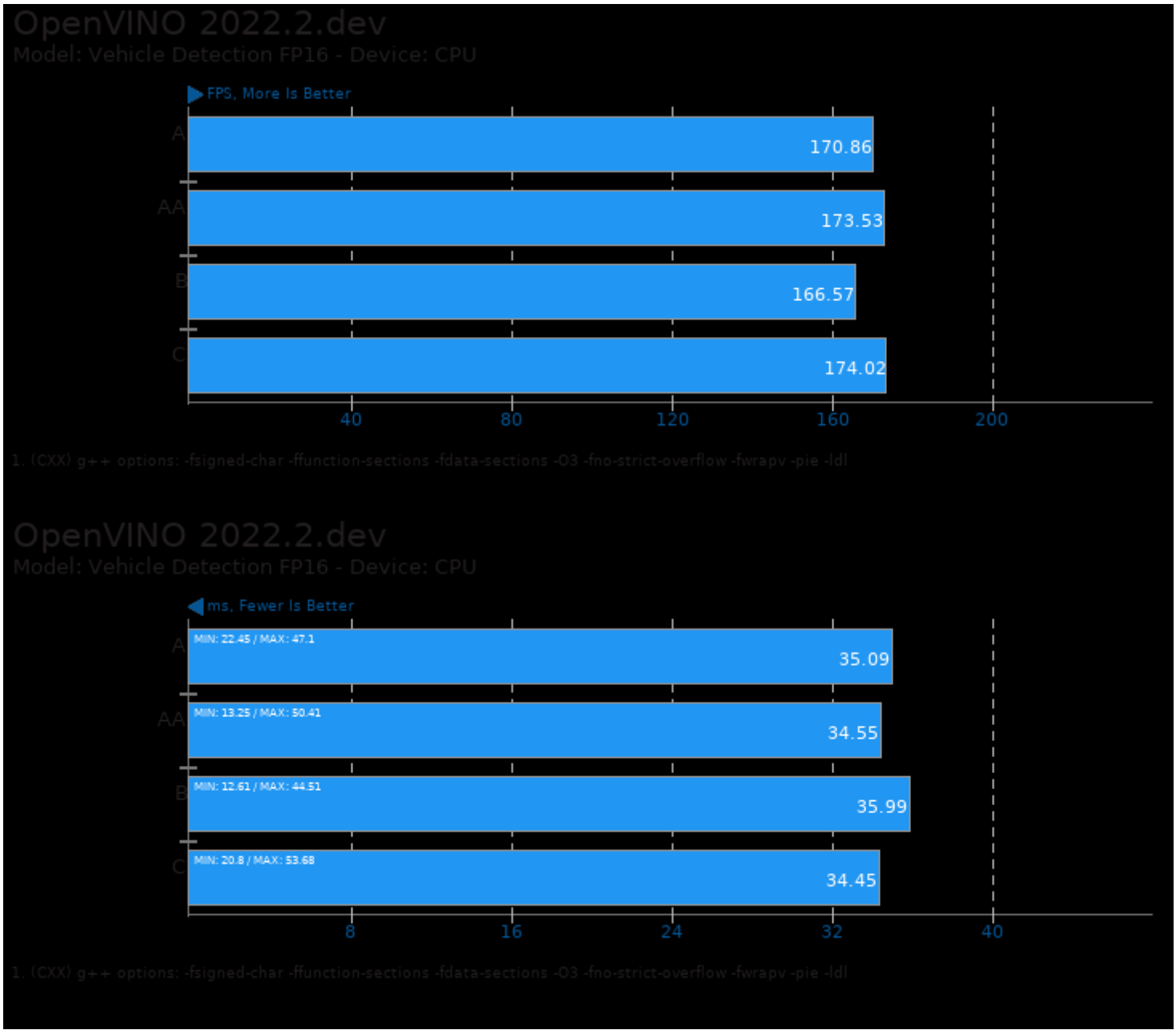


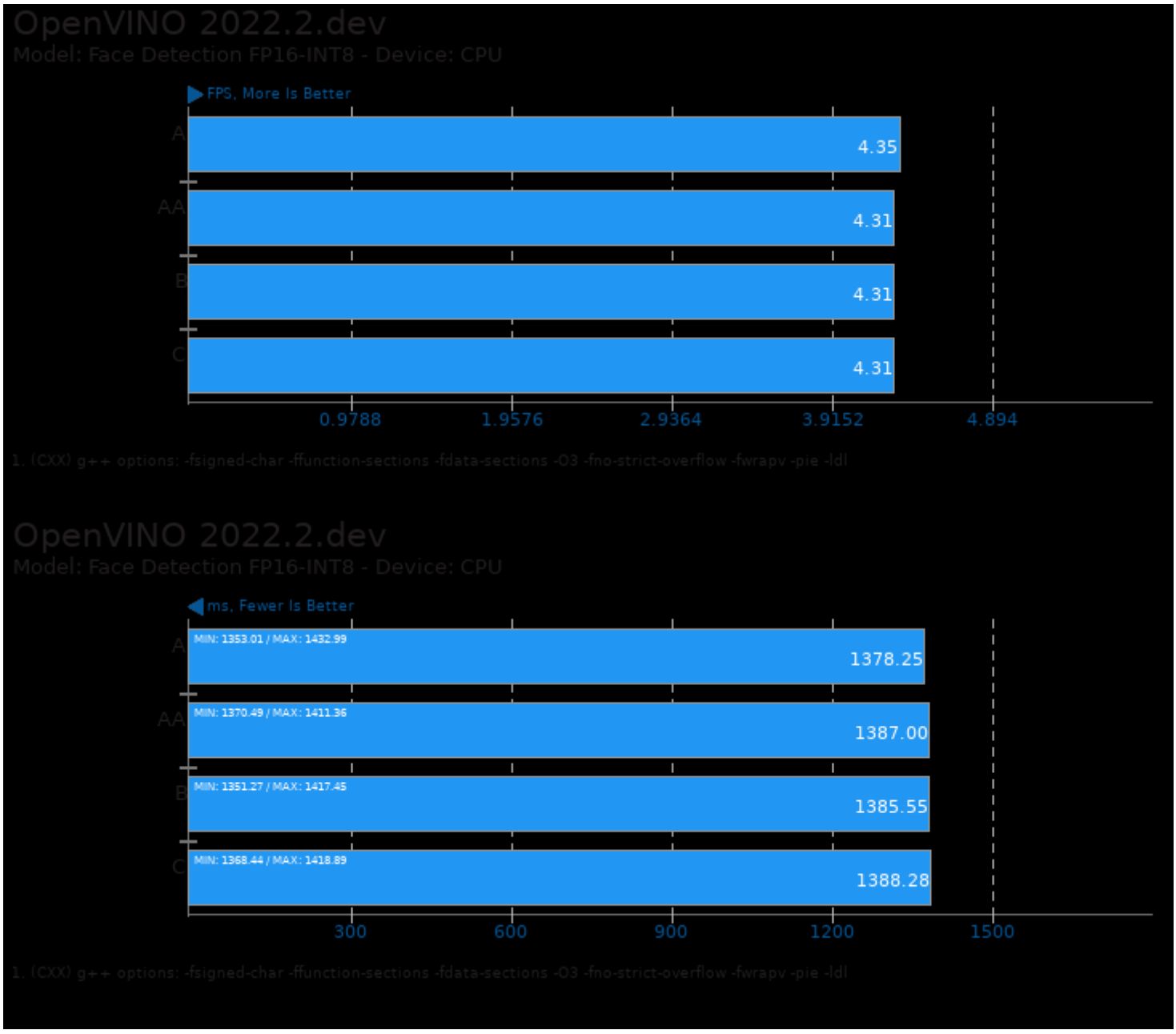

Blender 3.3
Blend File: Fishy Cat - Compute: CPU-Only
Seconds, Fewer Is Better
A
AA
B
C
125.98
126.53
125.77
125.20
30
60
90
120
150
Blender 3.3
Blend File: Barbershop - Compute: CPU-Only
Seconds, Fewer Is Better
A
AA
B
C
1032.04
1029.03
1033.81
1027.44
200
400
600
800
1000
Blender 3.3
Blend File: Pabellon Barcelona - Compute: CPU-Only
Seconds, Fewer Is Better
A
AA
B
C
321.22
318.03
319.01
319.32
70
140
210
280
350

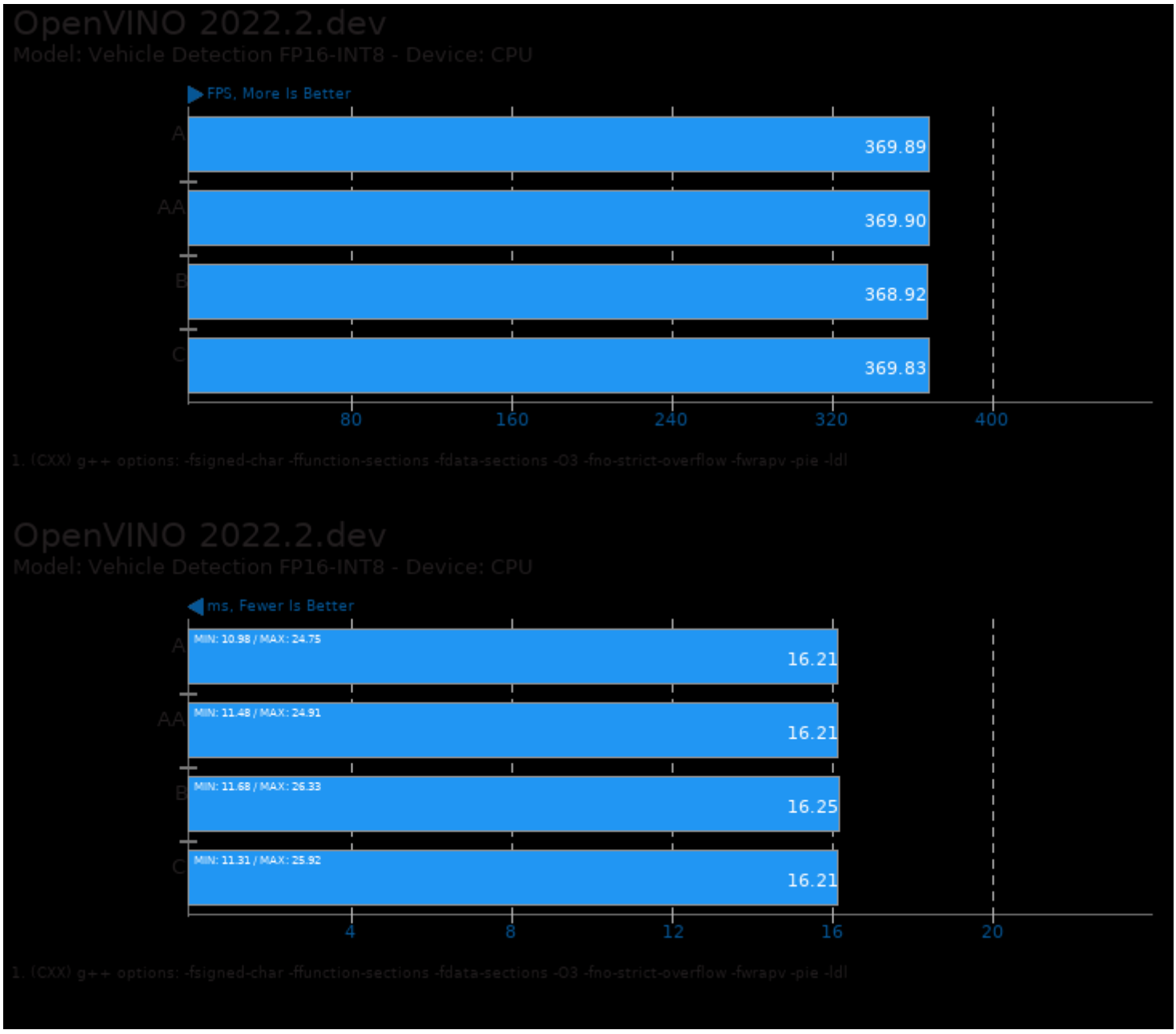

OpenVINO 2022.2.dev
Model: Face Detection FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
2.64
2.63
2.67
2.65
0.6008
1.2016
1.8024
2.4032
3.004
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Face Detection FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 2172.69 / MAX: 2379.8
2269.21
MIN: 2164.97 / MAX: 2394.44
2279.05
MIN: 2082.75 / MAX: 2340.6
2238.36
MIN: 2090.14 / MAX: 2336.79
2250.83
500
1000
1500
2000
2500
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

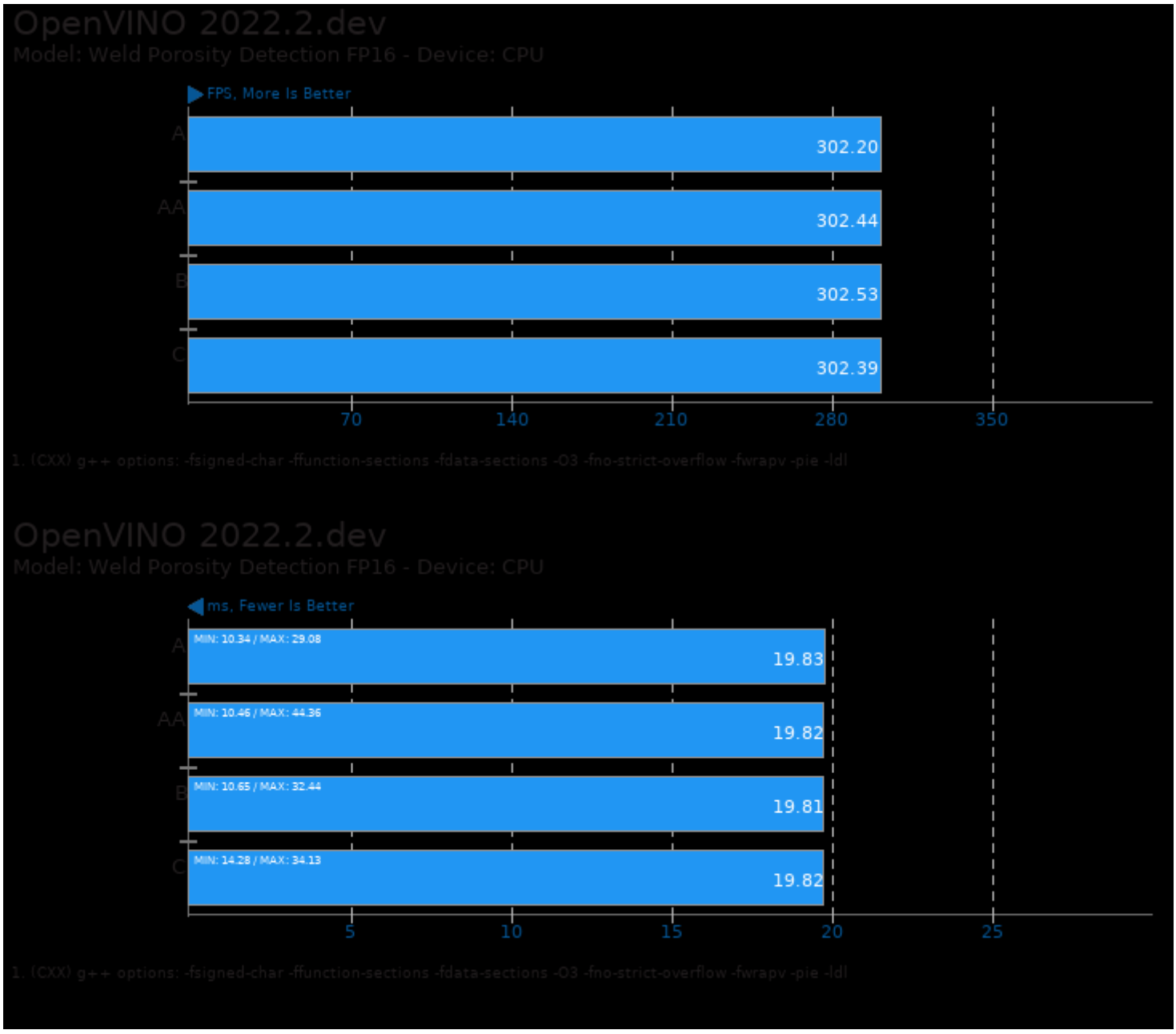

OpenVINO 2022.2.dev
Model: Person Detection FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
1.91
1.90
1.90
1.92
0.432
0.864
1.296
1.728
2.16
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Person Detection FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 2806.76 / MAX: 3365.69
3099.00
MIN: 2805.37 / MAX: 3397.57
3123.95
MIN: 2826.01 / MAX: 3435.4
3120.76
MIN: 1583.7 / MAX: 3401.16
3087.45
700
1400
2100
2800
3500
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

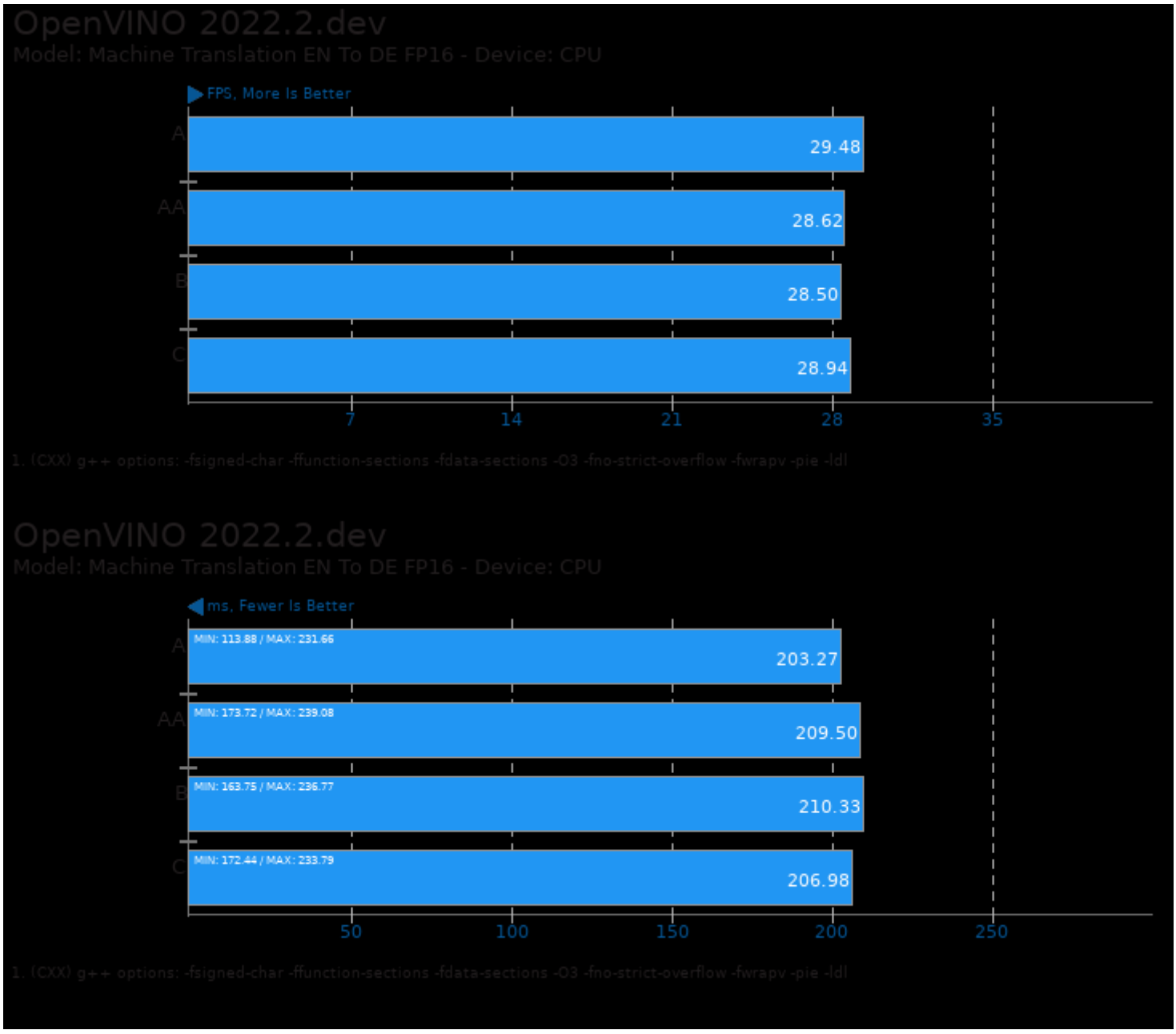

OpenVINO 2022.2.dev
Model: Person Detection FP32 - Device: CPU
FPS, More Is Better
A
AA
B
C
1.92
1.89
1.91
1.94
0.4365
0.873
1.3095
1.746
2.1825
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Person Detection FP32 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 2539.51 / MAX: 3366.56
3084.38
MIN: 2706.58 / MAX: 3469.14
3105.06
MIN: 2798.44 / MAX: 3409.97
3092.99
MIN: 2536.5 / MAX: 3437.01
3044.33
700
1400
2100
2800
3500
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

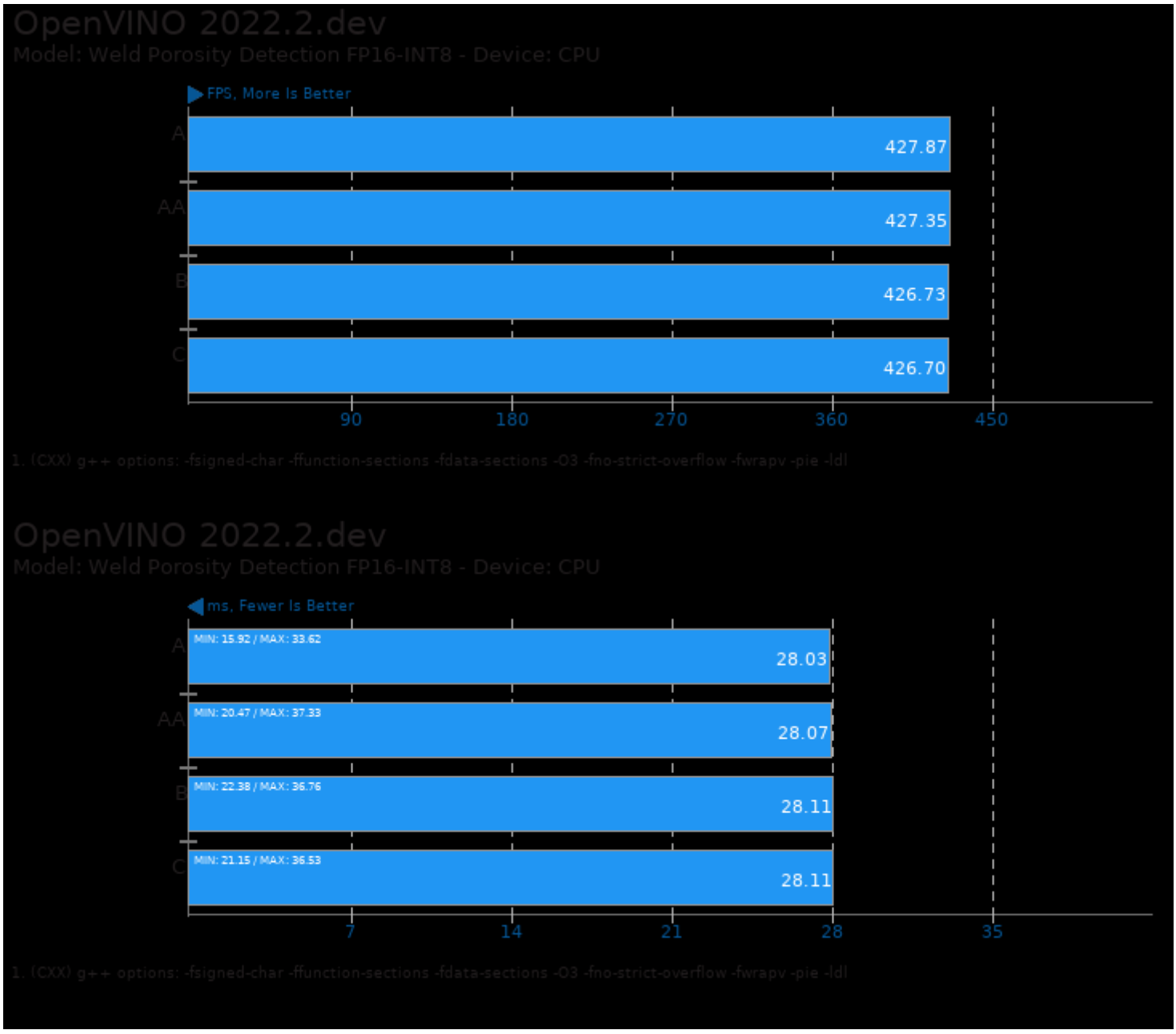

OpenVINO 2022.2.dev
Model: Vehicle Detection FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
170.86
173.53
166.57
174.02
40
80
120
160
200
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Vehicle Detection FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 22.45 / MAX: 47.1
35.09
MIN: 13.25 / MAX: 50.41
34.55
MIN: 12.61 / MAX: 44.51
35.99
MIN: 20.8 / MAX: 53.68
34.45
8
16
24
32
40
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

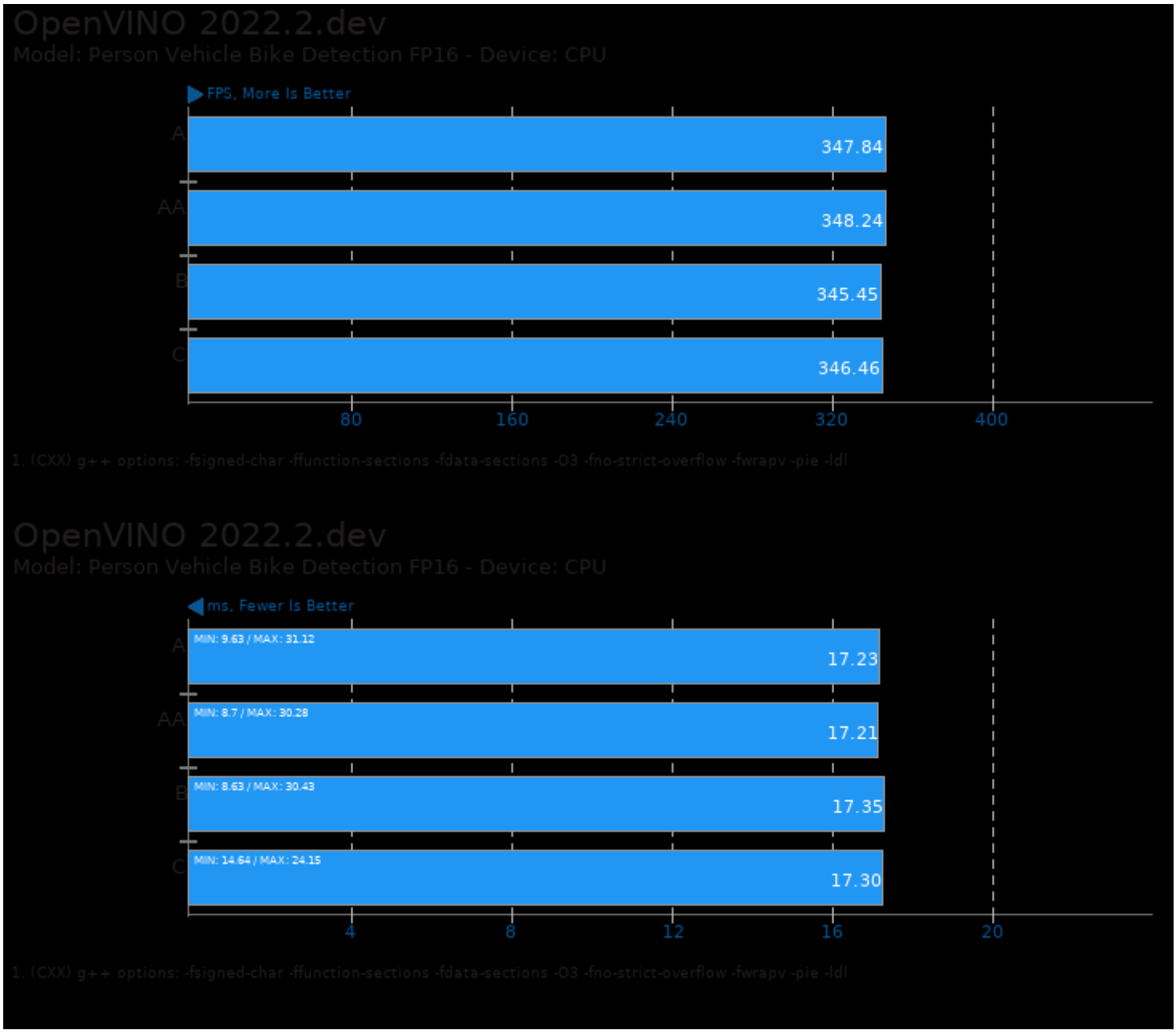

OpenVINO 2022.2.dev
Model: Face Detection FP16-INT8 - Device: CPU
FPS, More Is Better
A
AA
B
C
4.35
4.31
4.31
4.31
0.9788
1.9576
2.9364
3.9152
4.894
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Face Detection FP16-INT8 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 1353.01 / MAX: 1432.99
1378.25
MIN: 1370.49 / MAX: 1411.36
1387.00
MIN: 1351.27 / MAX: 1417.45
1385.55
MIN: 1368.44 / MAX: 1418.89
1388.28
300
600
900
1200
1500
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

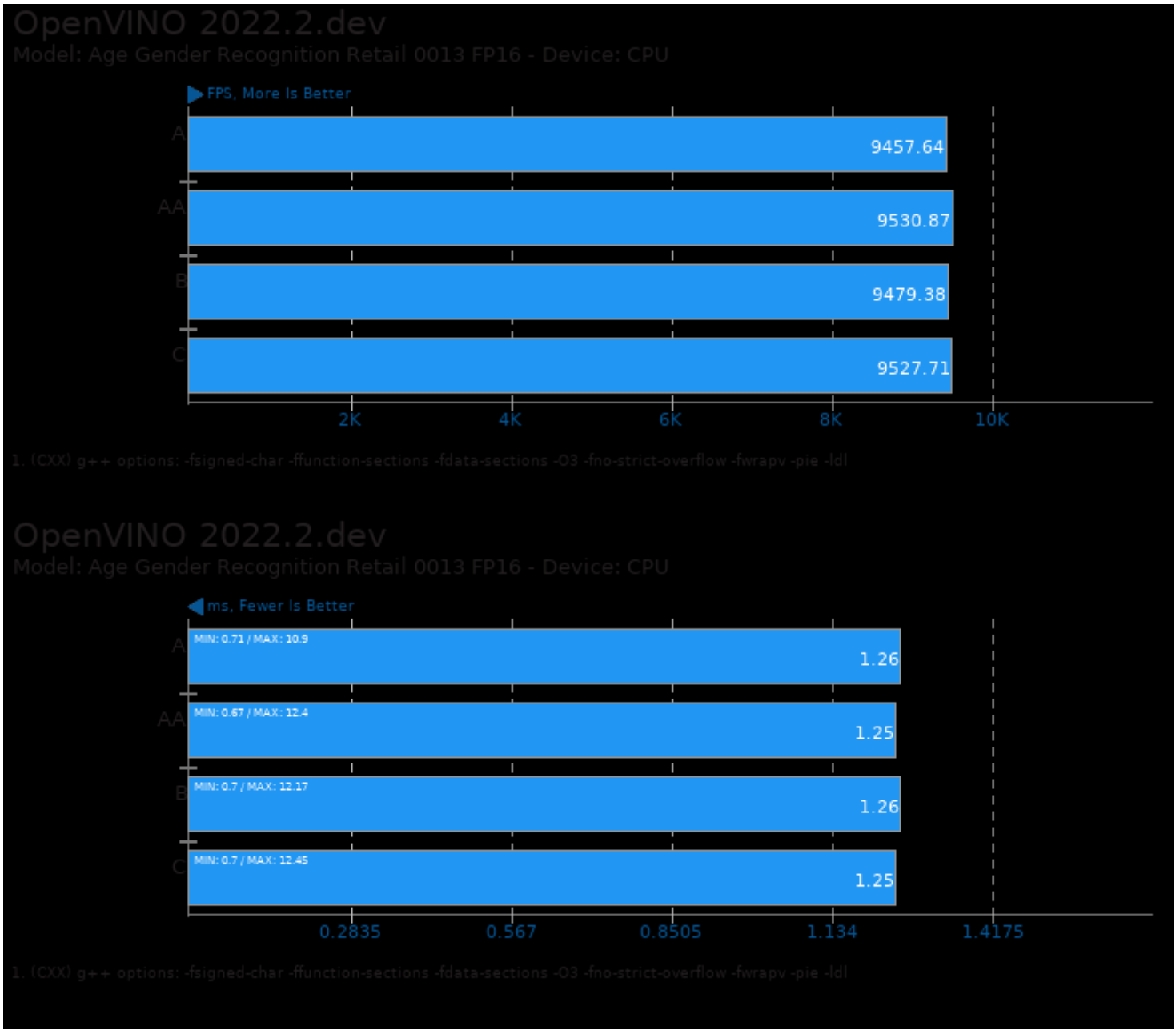

OpenVINO 2022.2.dev
Model: Vehicle Detection FP16-INT8 - Device: CPU
FPS, More Is Better
A
AA
B
C
369.89
369.90
368.92
369.83
80
160
240
320
400
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Vehicle Detection FP16-INT8 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 10.98 / MAX: 24.75
MIN: 11.48 / MAX: 24.91
MIN: 11.68 / MAX: 26.33
MIN: 11.31 / MAX: 25.92
16.21
16.21
16.25
16.21
4
8
12
16
20
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

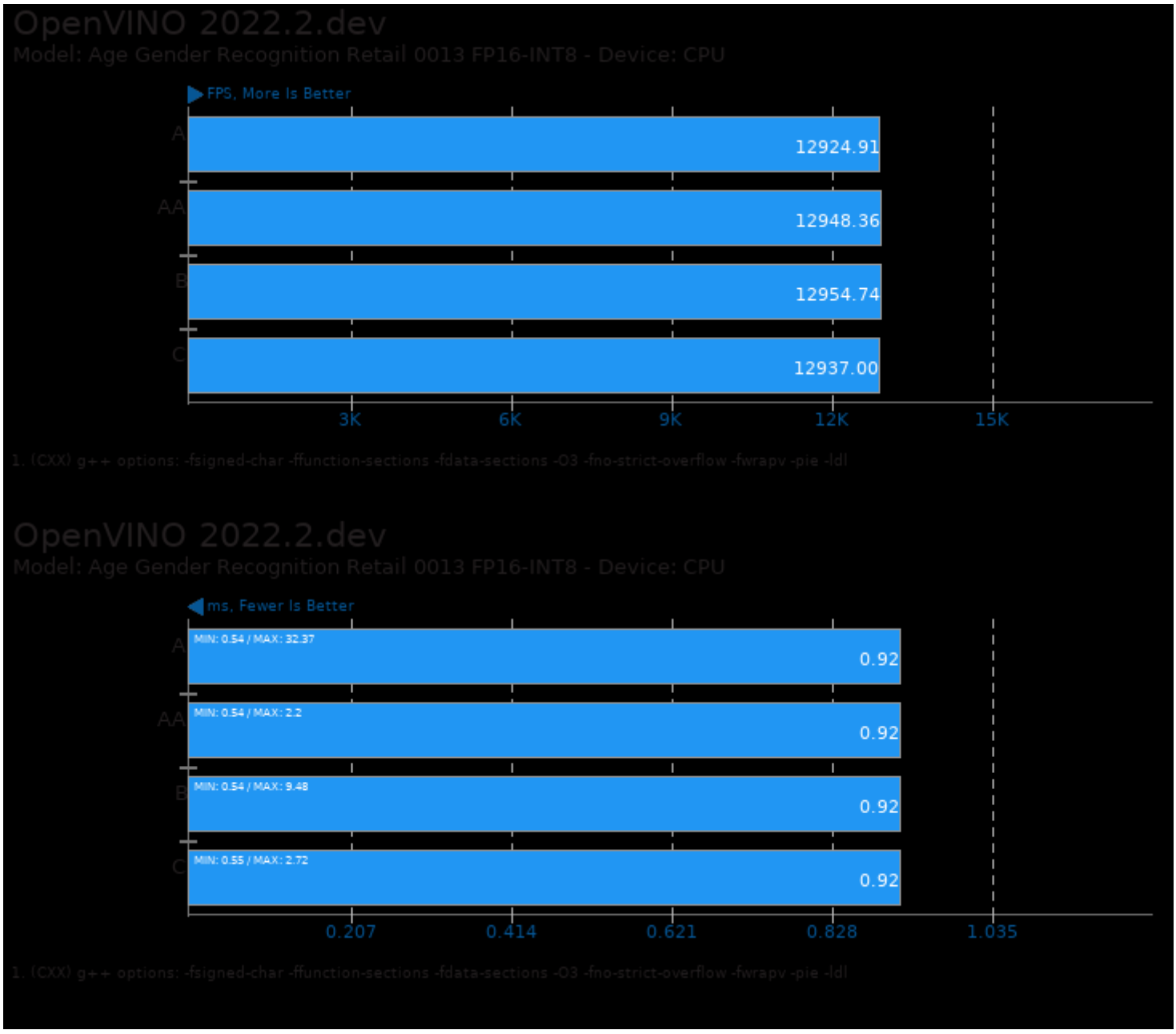

OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
302.20
302.44
302.53
302.39
70
140
210
280
350
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 10.34 / MAX: 29.08
MIN: 10.46 / MAX: 44.36
MIN: 10.65 / MAX: 32.44
MIN: 14.28 / MAX: 34.13
19.83
19.82
19.81
19.82
5
10
15
20
25
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

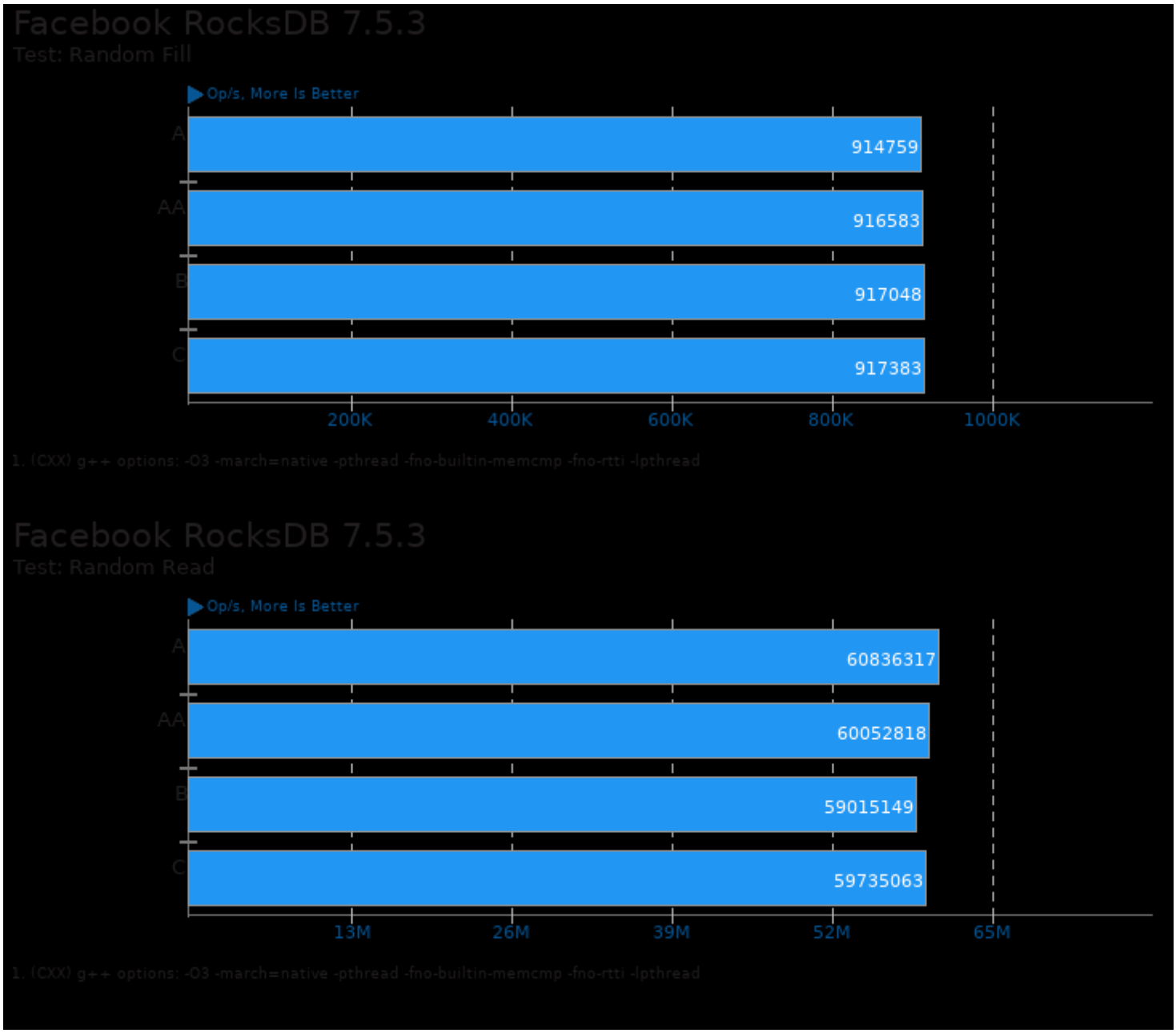

OpenVINO 2022.2.dev
Model: Machine Translation EN To DE FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
29.48
28.62
28.50
28.94
7
14
21
28
35
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Machine Translation EN To DE FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 113.88 / MAX: 231.66
203.27
MIN: 173.72 / MAX: 239.08
209.50
MIN: 163.75 / MAX: 236.77
210.33
MIN: 172.44 / MAX: 233.79
206.98
50
100
150
200
250
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

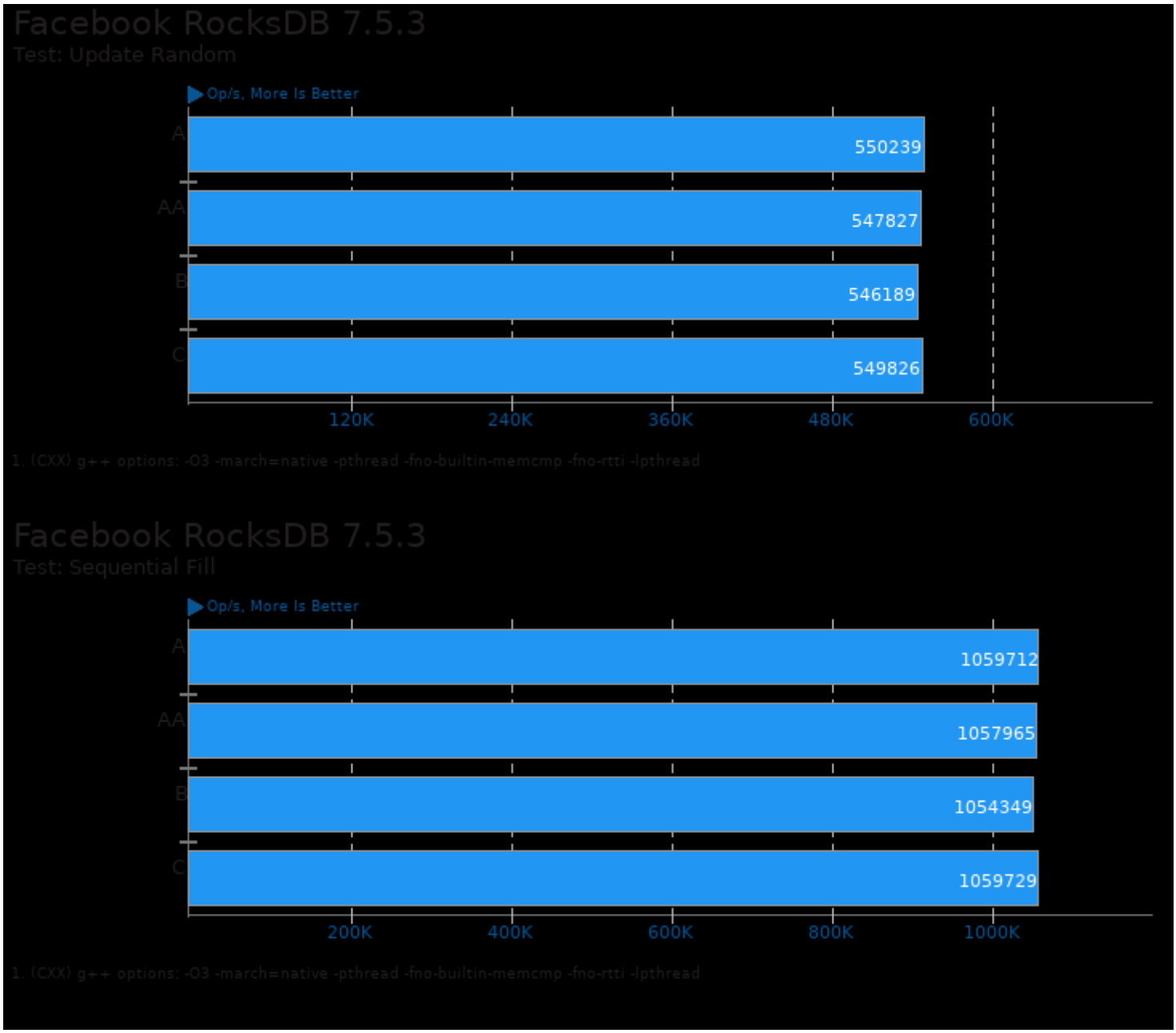

OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16-INT8 - Device: CPU
FPS, More Is Better
A
AA
B
C
427.87
427.35
426.73
426.70
90
180
270
360
450
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Weld Porosity Detection FP16-INT8 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 15.92 / MAX: 33.62
MIN: 20.47 / MAX: 37.33
MIN: 22.38 / MAX: 36.76
MIN: 21.15 / MAX: 36.53
28.03
28.07
28.11
28.11
7
14
21
28
35
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

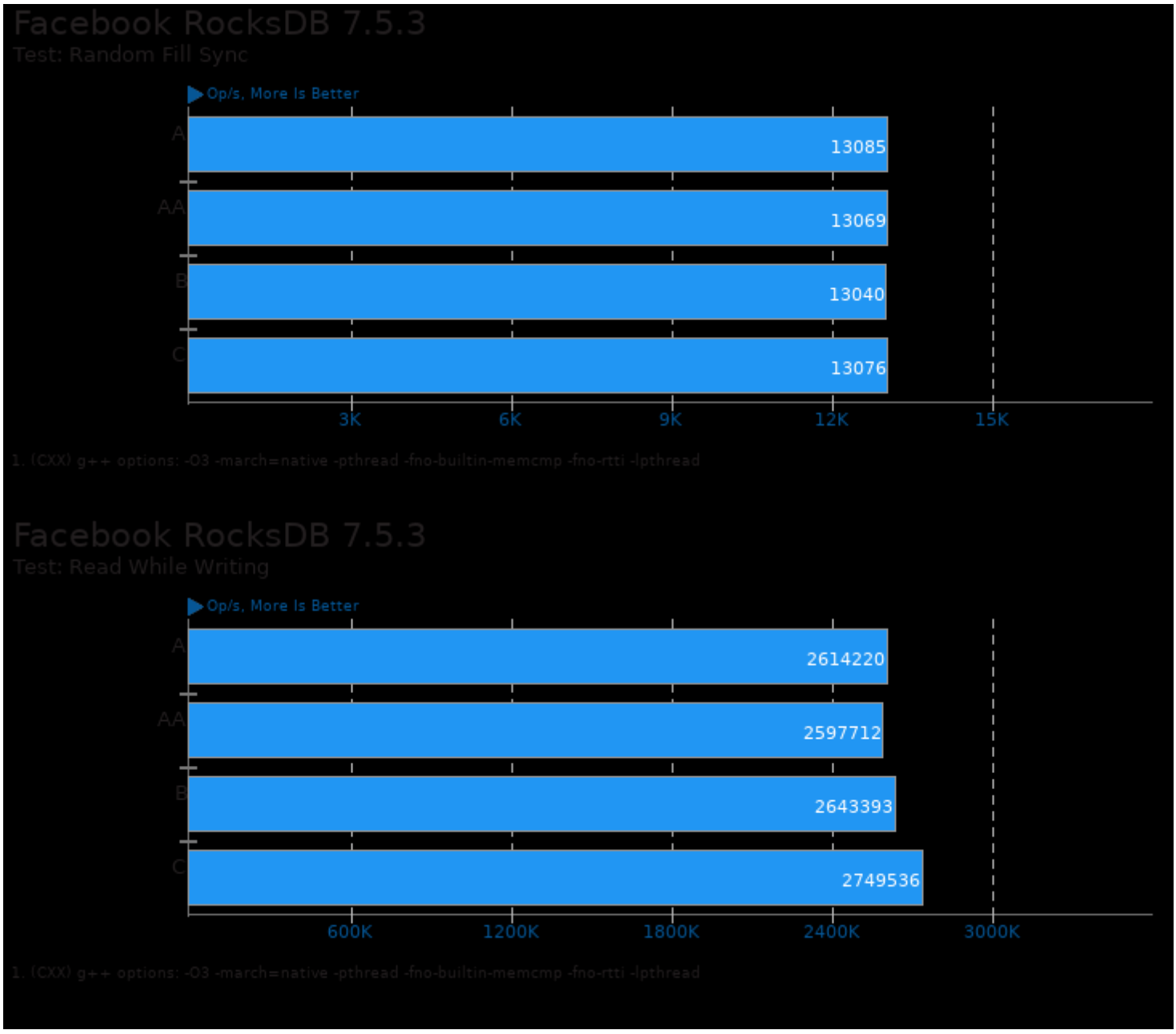

OpenVINO 2022.2.dev
Model: Person Vehicle Bike Detection FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
347.84
348.24
345.45
346.46
80
160
240
320
400
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Person Vehicle Bike Detection FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 9.63 / MAX: 31.12
MIN: 8.7 / MAX: 30.28
MIN: 8.63 / MAX: 30.43
MIN: 14.64 / MAX: 24.15
17.23
17.21
17.35
17.30
4
8
12
16
20
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl


OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU
FPS, More Is Better
A
AA
B
C
9457.64
9530.87
9479.38
9527.71
2K
4K
6K
8K
10K
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 0.71 / MAX: 10.9
MIN: 0.67 / MAX: 12.4
MIN: 0.7 / MAX: 12.17
MIN: 0.7 / MAX: 12.45
1.26
1.25
1.26
1.25
0.2835
0.567
0.8505
1.134
1.4175
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl


OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16-INT8 - Device: CPU
FPS, More Is Better
A
AA
B
C
12924.91
12948.36
12954.74
12937.00
3K
6K
9K
12K
15K
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl
OpenVINO 2022.2.dev
Model: Age Gender Recognition Retail 0013 FP16-INT8 - Device: CPU
ms, Fewer Is Better
A
AA
B
C
MIN: 0.54 / MAX: 32.37
MIN: 0.54 / MAX: 2.2
MIN: 0.54 / MAX: 9.48
MIN: 0.55 / MAX: 2.72
0.92
0.92
0.92
0.92
0.207
0.414
0.621
0.828
1.035
1. (CXX) g++ options: -fsigned-char -ffunction-sections -fdata-sections -O3 -fno-strict-overflow -fwrapv -pie -ldl

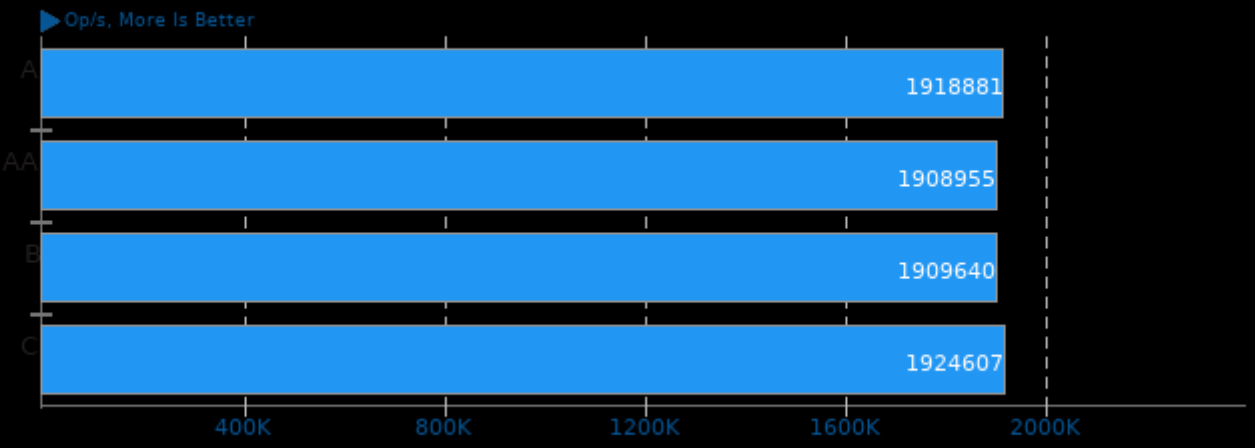

Facebook RocksDB 7.5.3
Test: Random Fill
Op/s, More Is Better
A
AA
B
C
914759
916583
917048
917383
200K
400K
600K
800K
1000K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 7.5.3
Test: Random Read
Op/s, More Is Better
A
AA
B
C
60836317
60052818
59015149
59735063
13M
26M
39M
52M
65M
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
A
AA
B
C
550239
547827
546189
549826
120K
240K
360K
480K
600K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread
Facebook RocksDB 7.5.3
Test: Sequential Fill
Op/s, More Is Better
A
AA
B
C
1059712
1057965
1054349
1059729
200K
400K
600K
800K
1000K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread


Facebook RocksDB 7.5.3
Test: Random Fill Sync
Op/s, More Is Better
A
AA
B
C
13085
13069
13040
13076
3K
6K
9K
12K
15K
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
A
AA
B
C
2614220
2597712
2643393
2749536
600K
1200K
1800K
2400K
3000K
1. (CXX) g++ options: -O3 -march=native -pthread -fno-builtin-memcmp -fno-rtti -lpthread

Facebook RocksDB 7.5.3

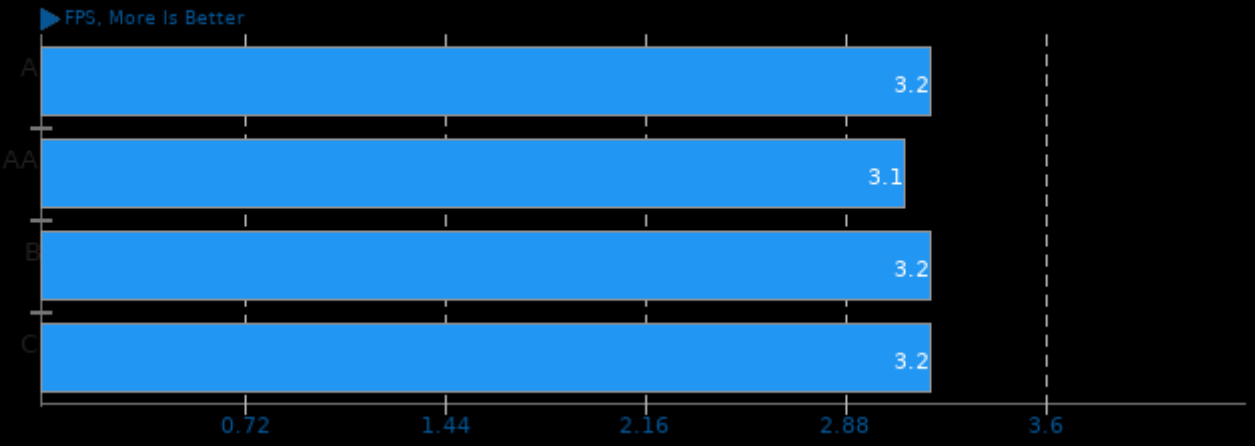
Test: Read Random Write Random



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

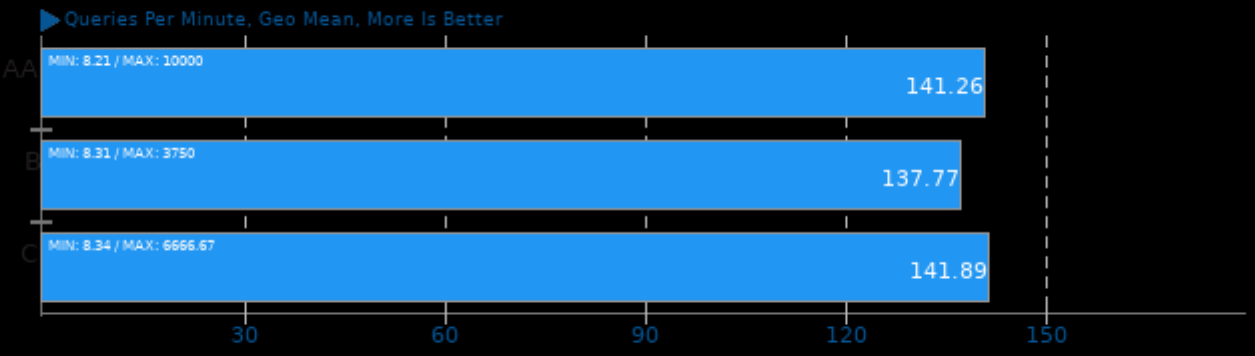
Natron 2.4.3

Input: Spaceship



ClickHouse 22.5.4.19

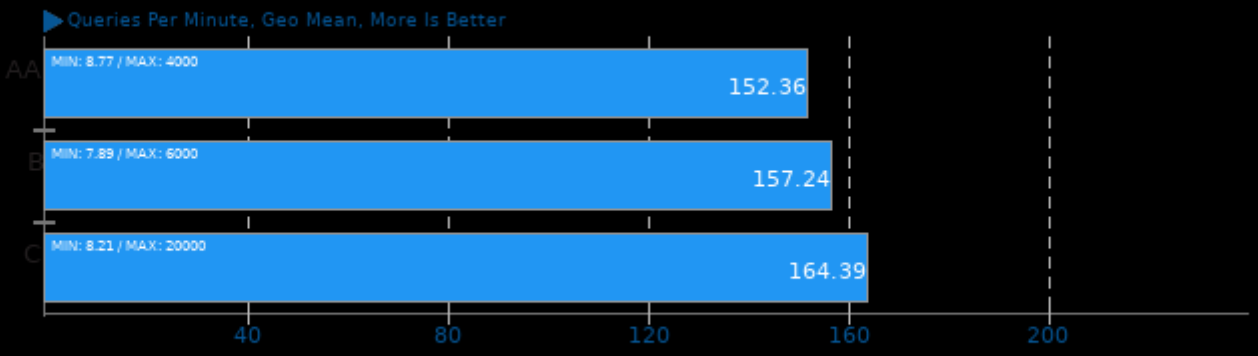
100M Rows Web Analytics Dataset, First Run / Cold Cache



1. ClickHouse server version 22.5.4.19 (official build).

ClickHouse 22.5.4.19

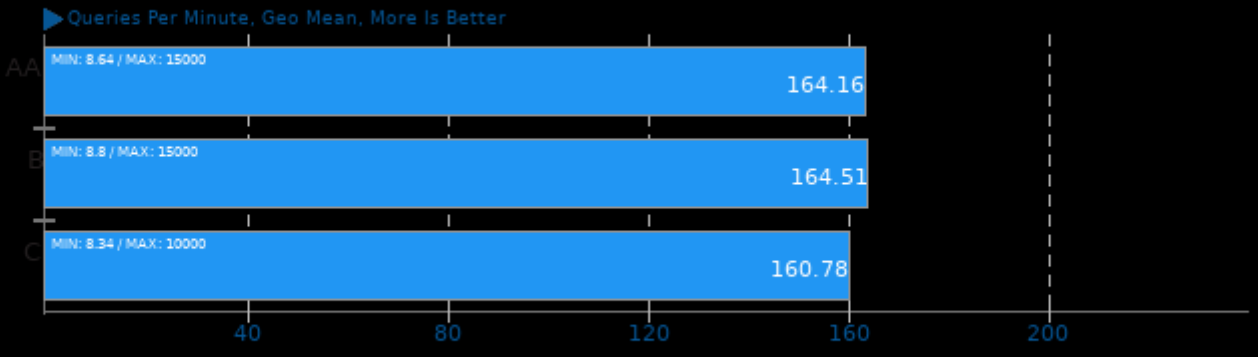
100M Rows Web Analytics Dataset, Second Run



1. ClickHouse server version 22.5.4.19 (official build).

ClickHouse 22.5.4.19

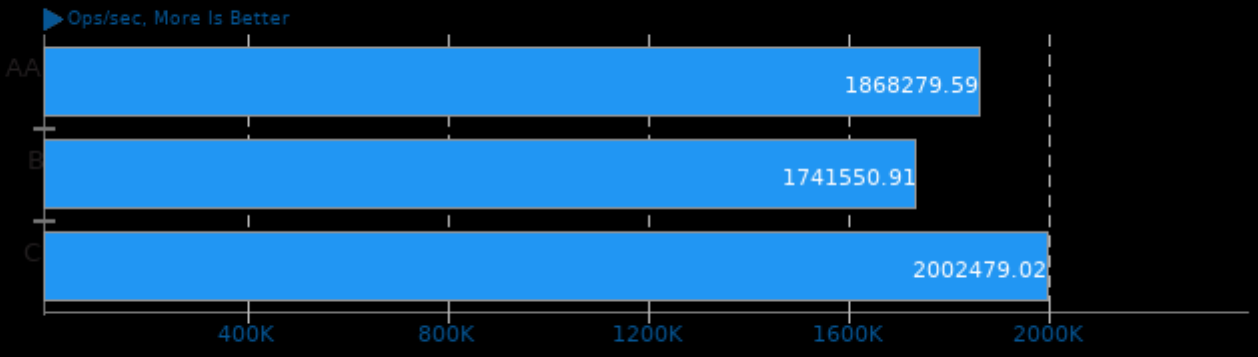
100M Rows Web Analytics Dataset, Third Run



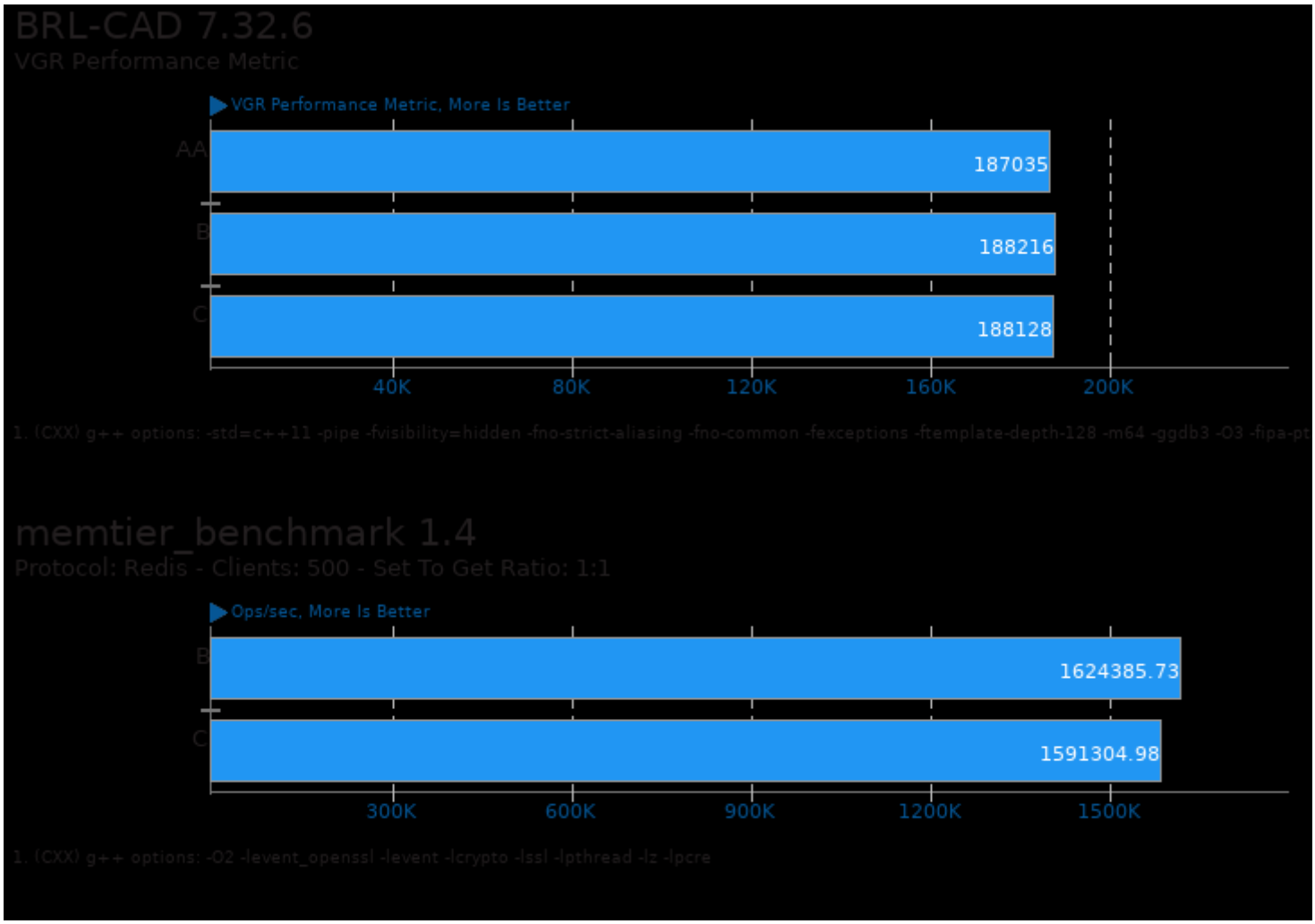
1. ClickHouse server version 22.5.4.19 (official build).

memtier_benchmark 1.4

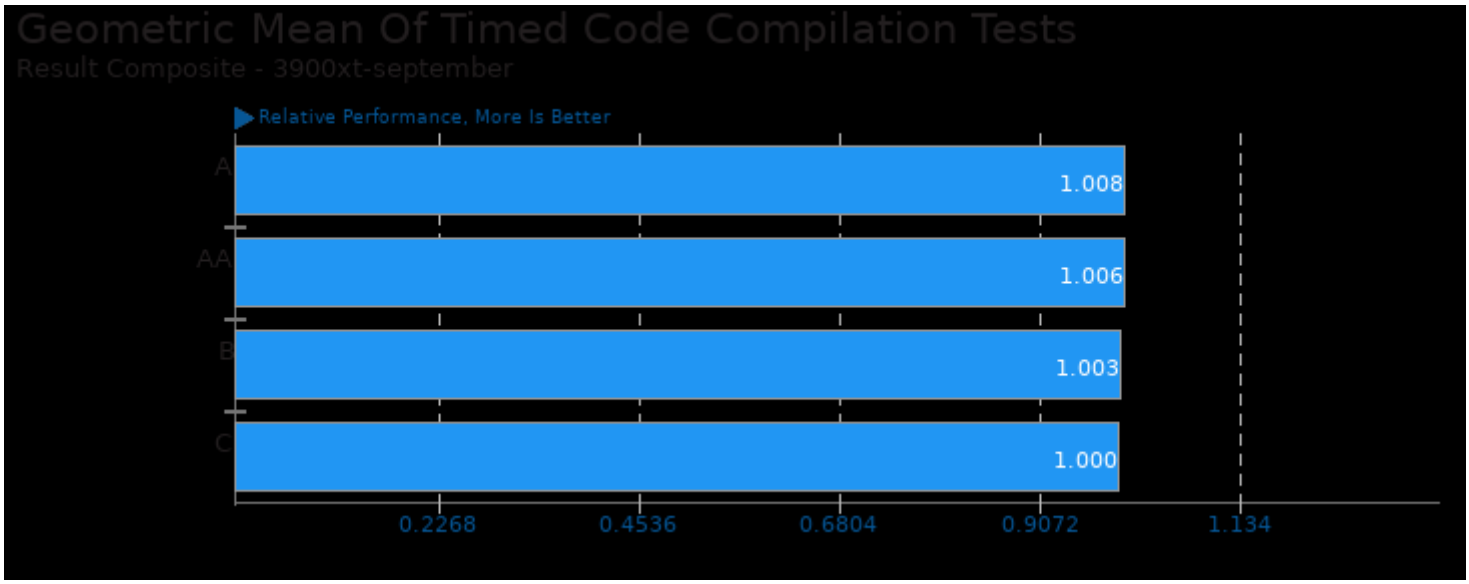
Protocol: Redis - Clients: 500 - Set To Get Ratio: 1:10



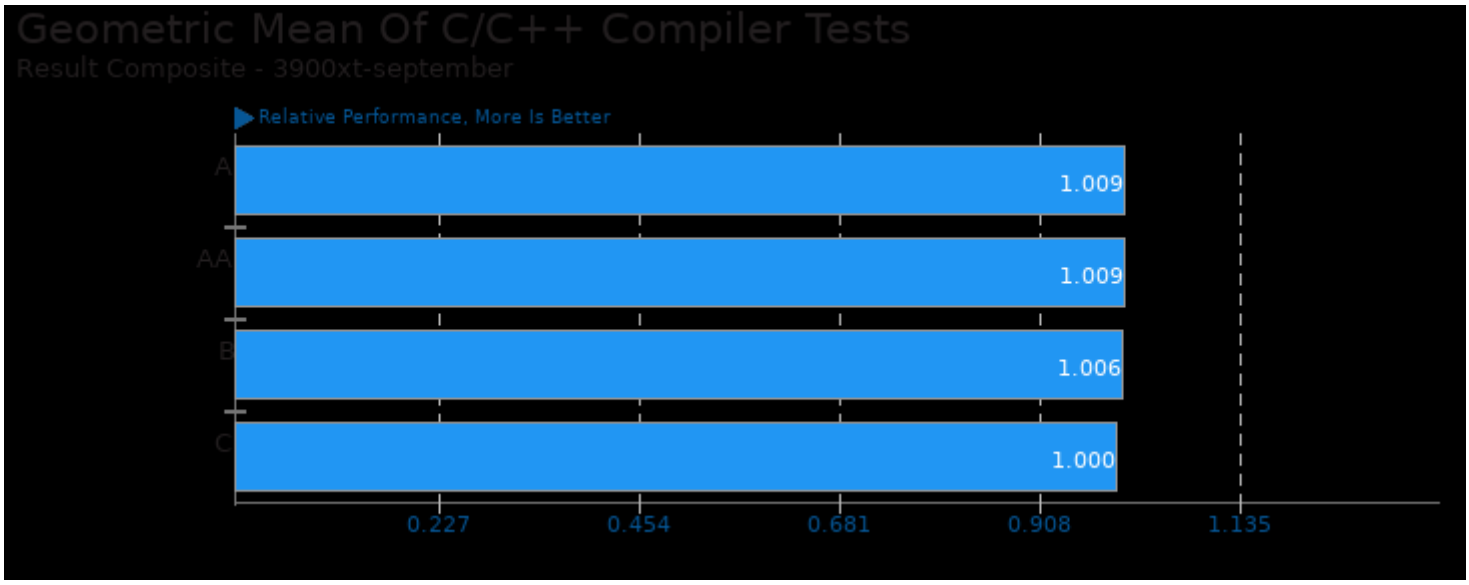
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre


BRL-CAD 7.32.6
VGR Performance Metric
VGR Performance Metric, More Is Better
AA
187035
B
188216
C
188128
40K
80K
120K
160K
200K
1. (CXX) g++ options: -std=c++11 -pipe -fvisibility=hidden -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth-128 -m64 -ggdb3 -O3 -fipa-pt
memtier_benchmark 1.4
Protocol: Redis - Clients: 500 - Set To Get Ratio: 1:1
Ops/sec, More Is Better
B
1624385.73
C
1591304.98
300K
600K
900K
1200K
1500K
1. (CXX) g++ options: -O2 -levent_openssl -levent -lcrypto -lssl -lpthread -lz -lpcre

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



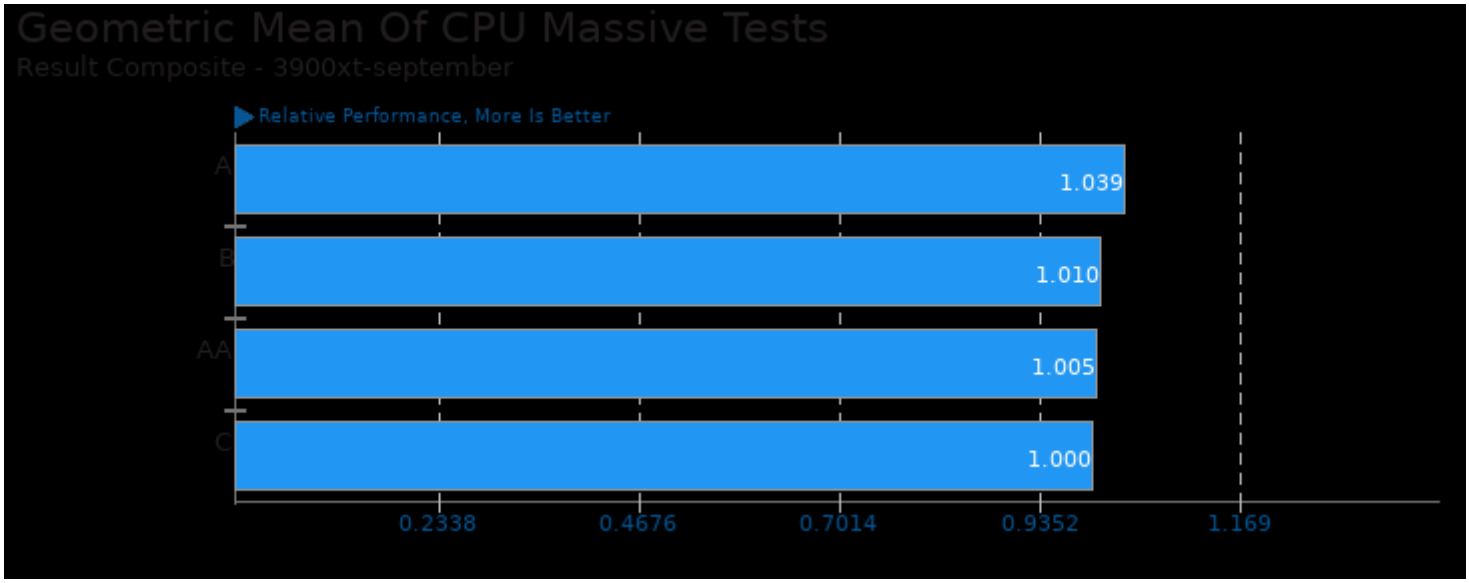
Geometric mean based upon tests: pts/build-php, pts/build-python, pts/build-erlang, pts/build-wasmer and pts/build-nodejs



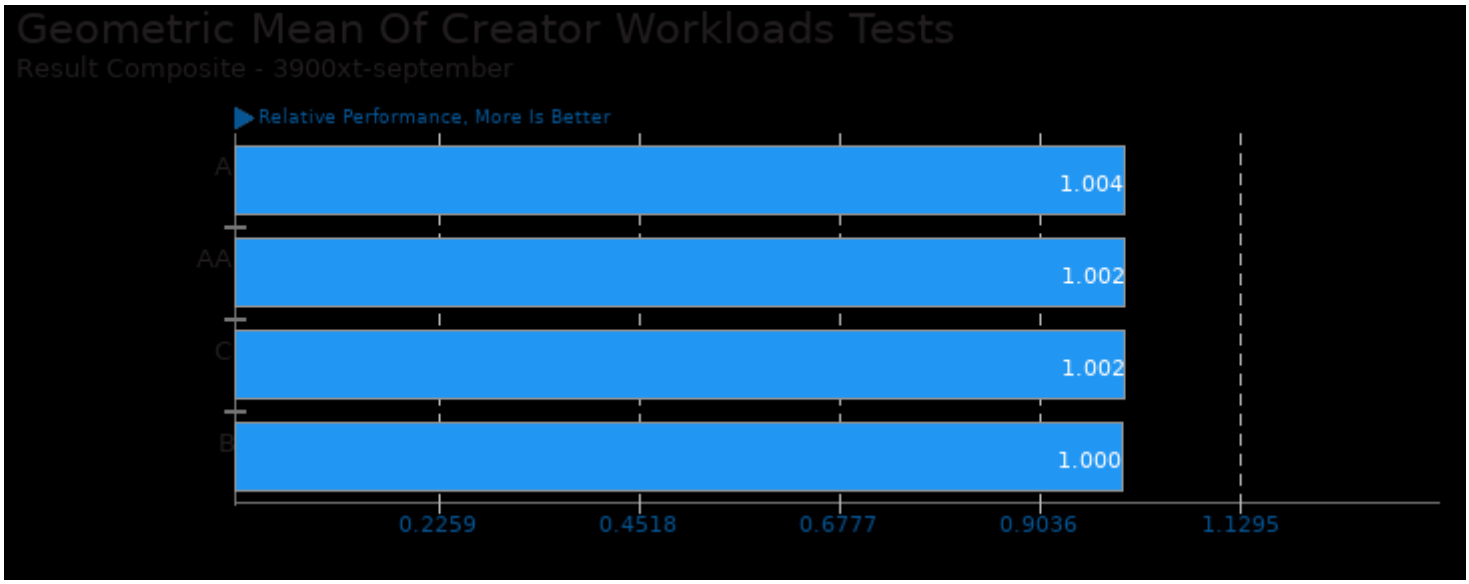
Geometric mean based upon tests: pts/graphics-magick, pts/build-php, pts/compress-7zip, pts/lammps, pts/aircrack-ng and pts/svt-av1



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



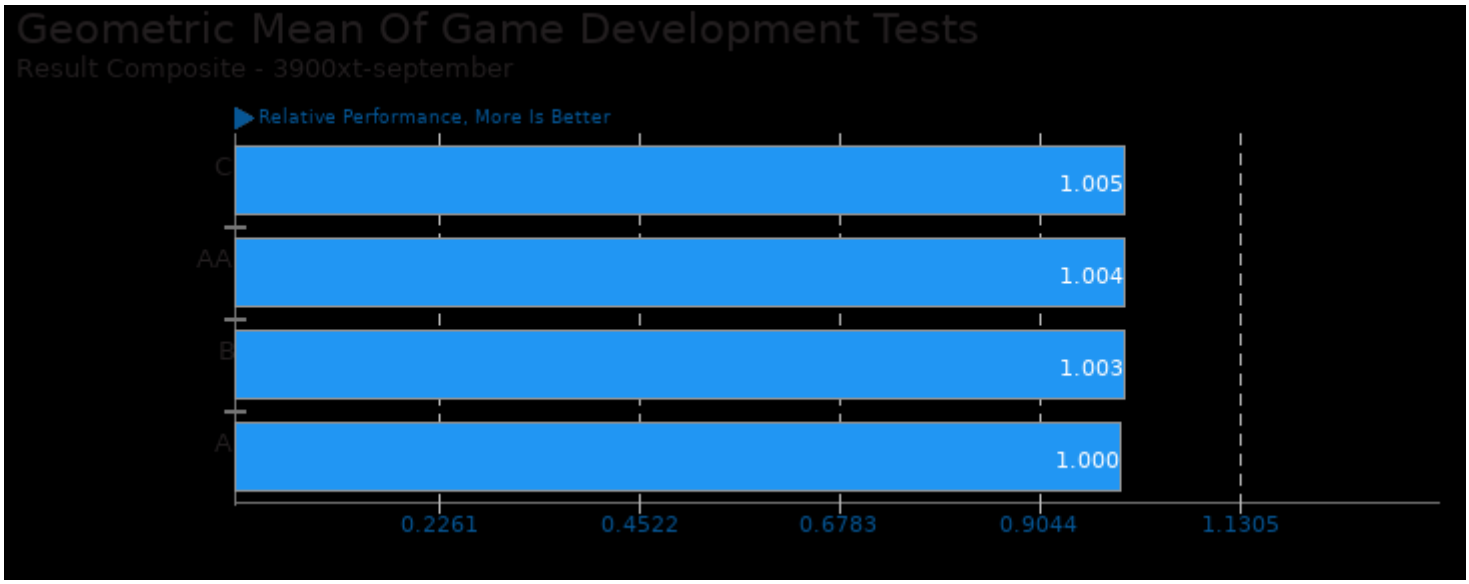
Geometric mean based upon tests: pts/brl-cad, pts/build-php, pts/compress-7zip, pts/svt-av1, pts/graphics-magick, pts/lammps, pts/primesieve, pts/redis and pts/blender



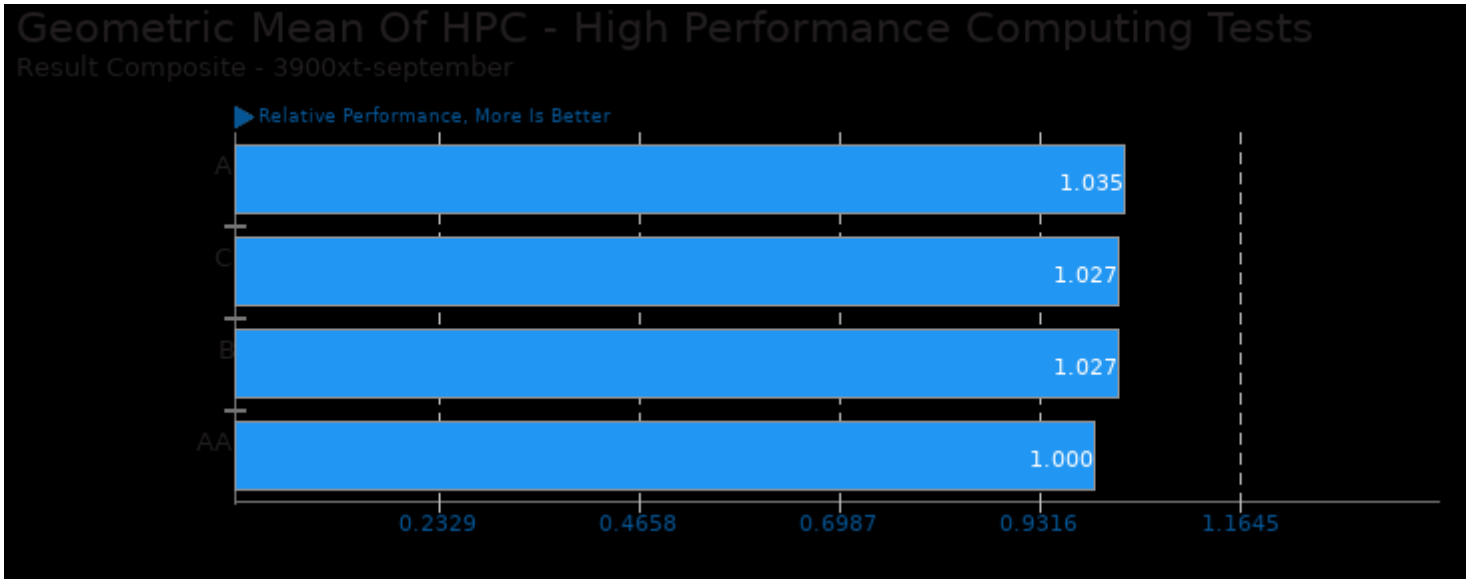
Geometric mean based upon tests: pts/blender, pts/natron, pts/svt-av1, pts/graphics-magick, pts/openvino, pts/astcenc and pts/brl-cad



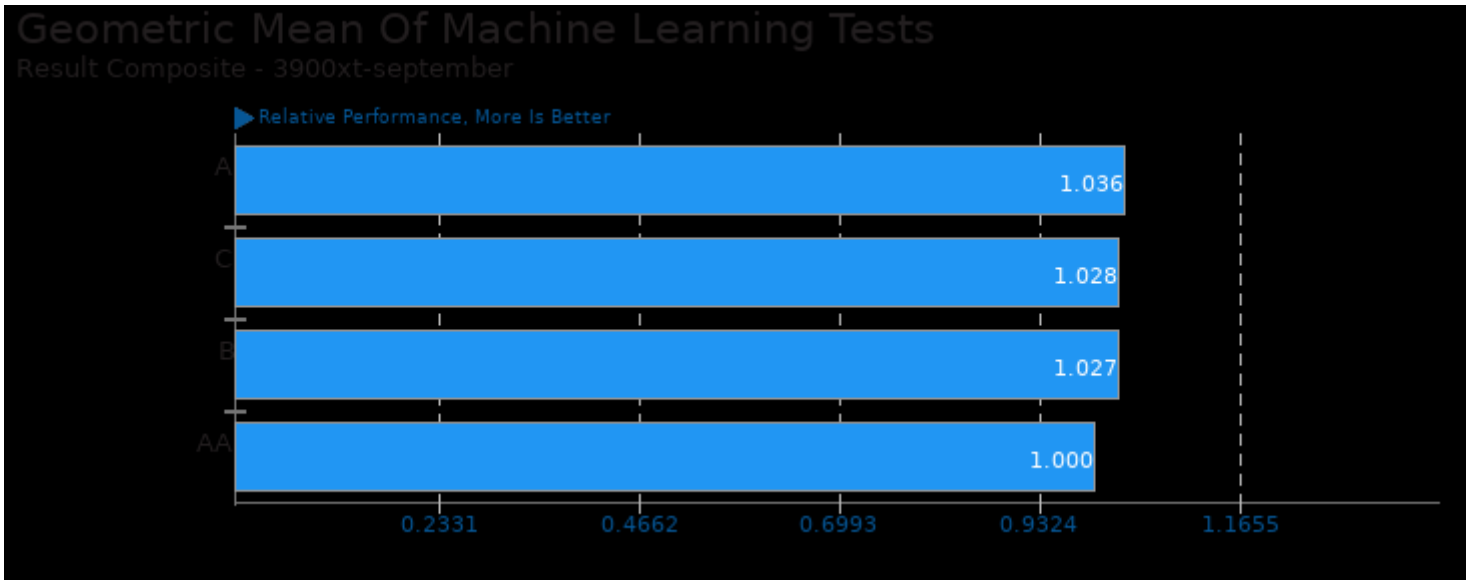
Geometric mean based upon tests: pts/etcd, pts/redis, pts/dragonflydb, pts/memtier-benchmark, pts/rocksdb and pts/clickhouse



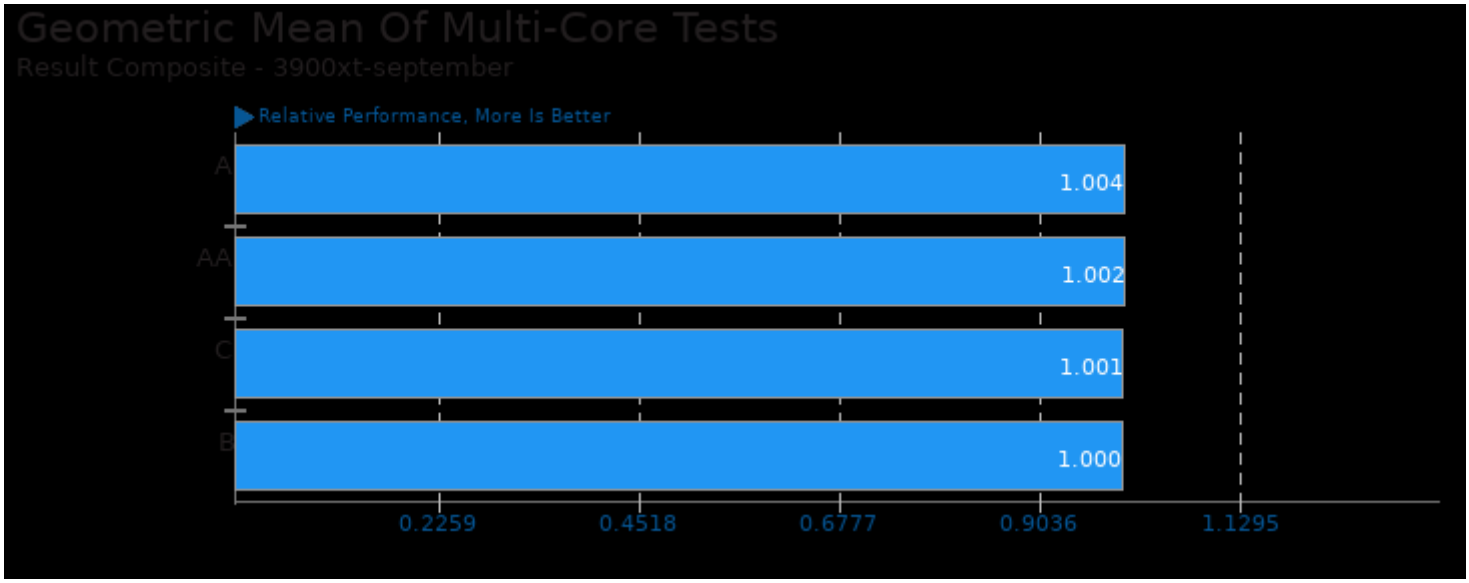
Geometric mean based upon tests: pts/astcenc and pts/blender



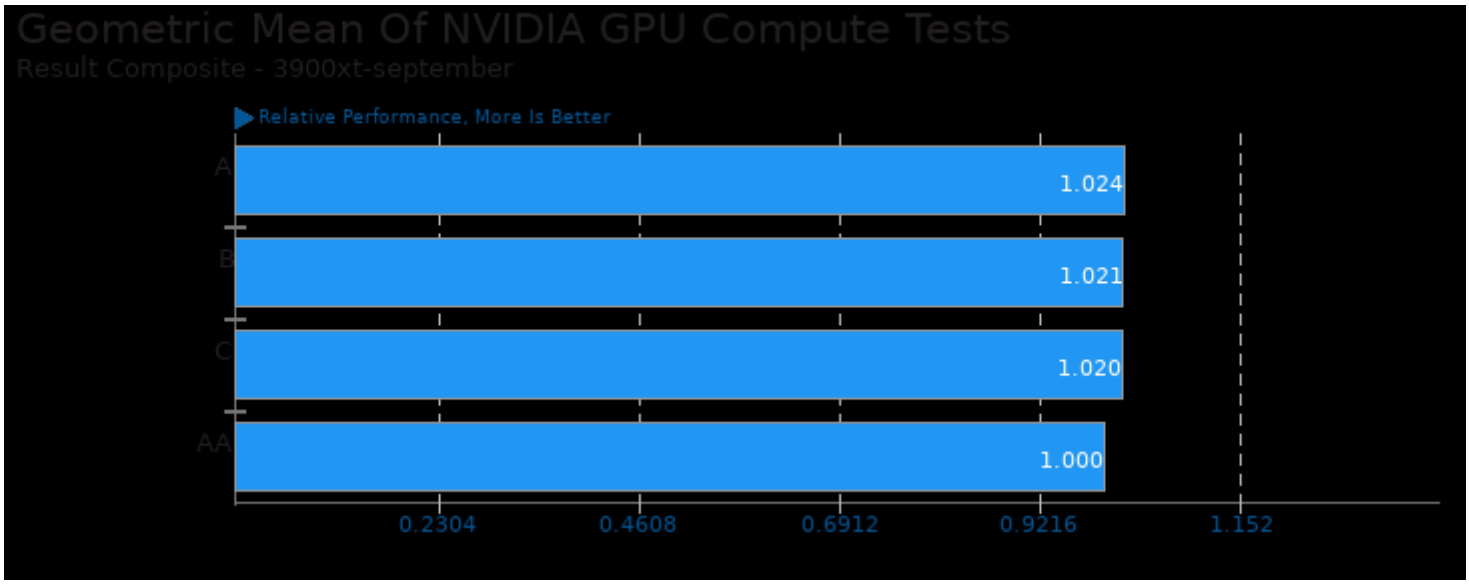
Geometric mean based upon tests: pts/lammps, pts/mnn, pts/ncnn and pts/openvino



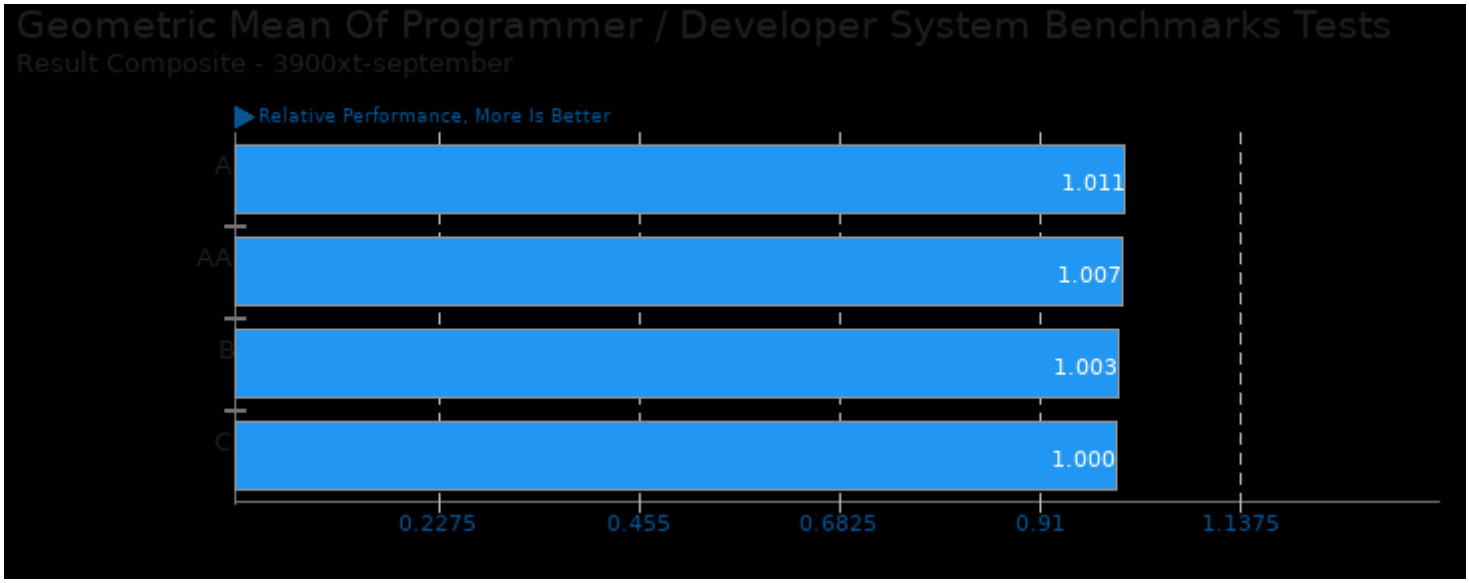
Geometric mean based upon tests: pts/mnn, pts/ncnn and pts/openvino



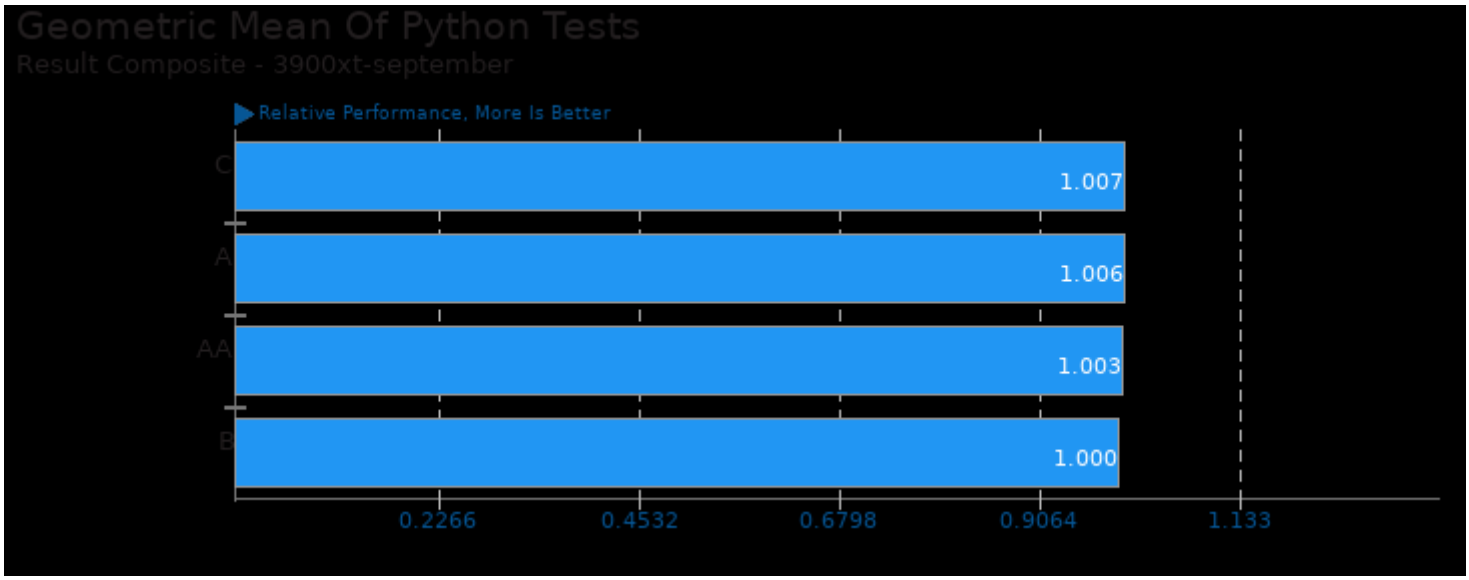
Geometric mean based upon tests: pts/blender, pts/aircrack-ng, pts/svt-av1, pts/primesieve, pts/graphics-magick, pts/lammps, pts/compress-7zip, pts/build-php, pts/build-python, pts/build-erlang, pts/build-wasmer, pts/build-nodejs, pts/natron and pts/openvino



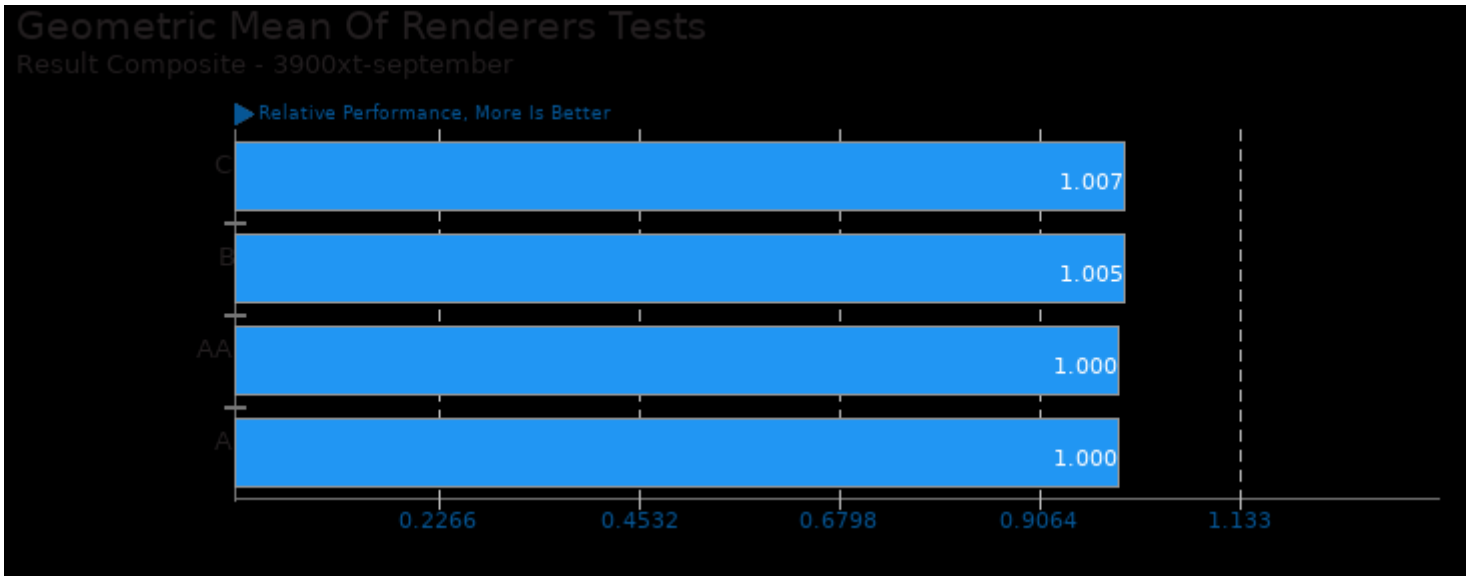
Geometric mean based upon tests: pts/blender and pts/ncnn



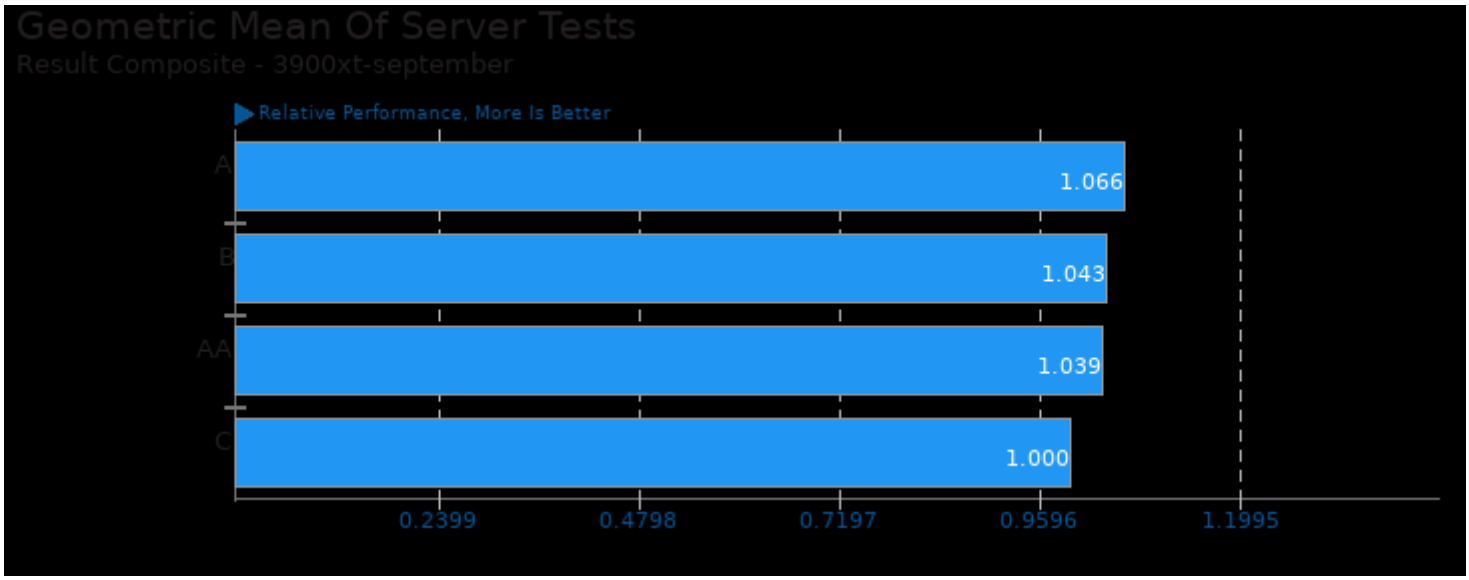
Geometric mean based upon tests: pts/node-web-tooling, pts/blosc, pts/build-php, pts/build-python, pts/build-erlang, pts/build-wasmer and pts/build-nodejs



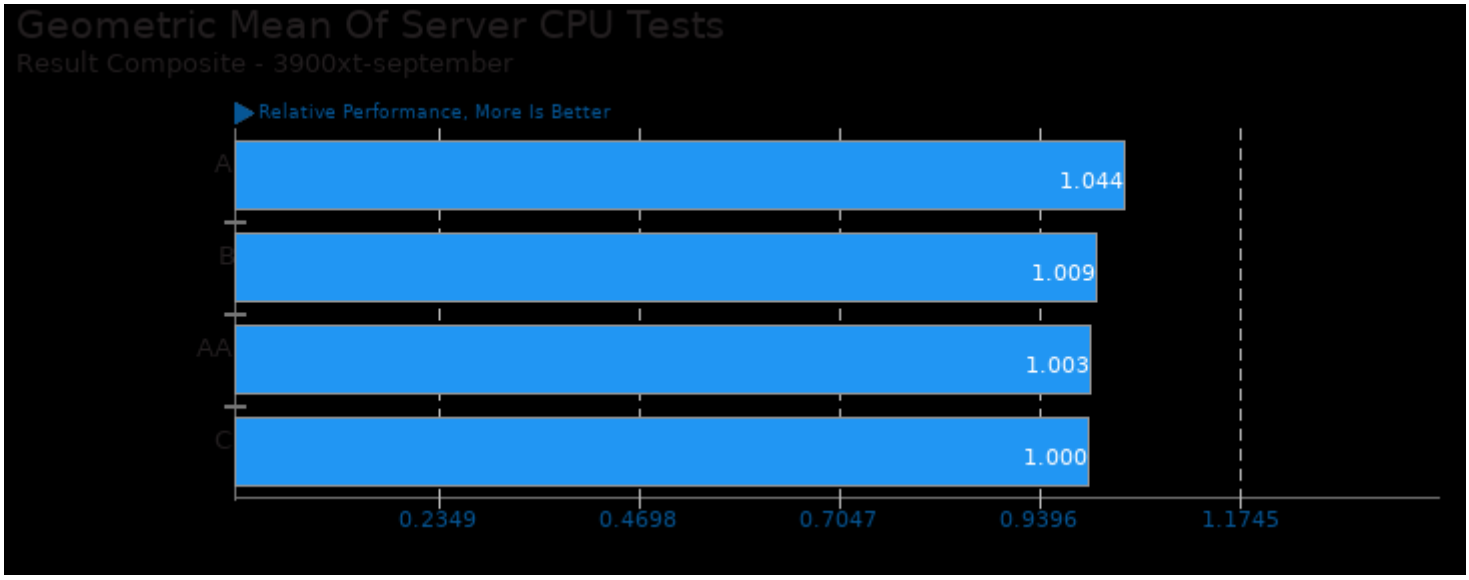
Geometric mean based upon tests: pts/build-nodejs and pts/openvino



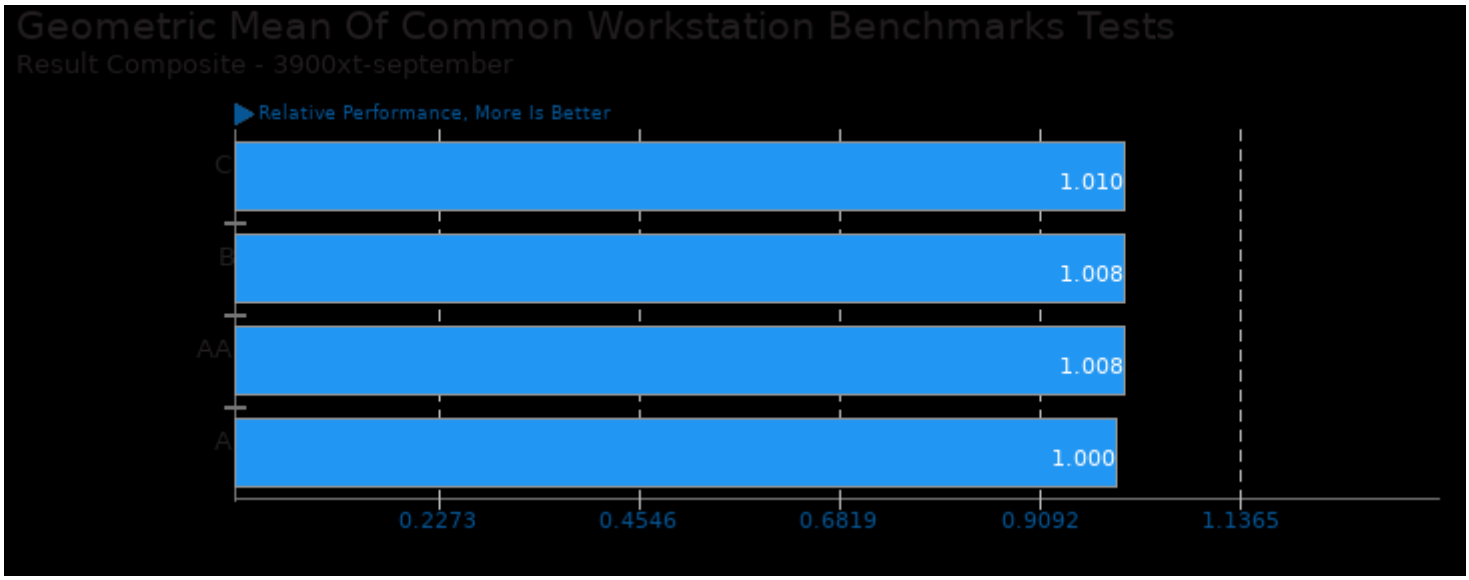
Geometric mean based upon tests: pts/blender and pts/natron



Geometric mean based upon tests: pts/memtier-benchmark, pts/redis, pts/rocksdb, pts/node-web-tooling, pts/etcd, pts/dragonflydb and pts/clickhouse



Geometric mean based upon tests: pts/svt-av1, pts/compress-7zip, pts/build-php, pts/redis and pts/blender



Geometric mean based upon tests: pts/blender and pts/brl-cad

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 06:49.