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xdacputestsep2019

PTS Processor Tests across AMD and Intel CPUs for XDA-Developers

Automated Executive Summary

3900XOC4250 had the most wins, coming in first place for 30% of the tests.

Based on the geometric mean of all complete results, the fastest (3900XOC4250) was 1.779x the speed of the slowest (2400G_39All).

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

ebizzy (Phoronix Test Suite v5.2.1) at 23.756x
SVT-VP9 (1080p 8-bit YUV To VP9 Video Encode) at 8.98x
Core-Latency (Average Latency Between CPU Cores) at 8.49x
Renaissance (Test: Twitter Finagle) at 5.608x
Y-Cruncher (Calculating 500M Pi Digits) at 4.883x
OpenSSL (RSA 4096-bit Performance) at 4.865x
Timed LLVM Compilation (Time To Compile) at 4.161x
x264 (H.264 Video Encoding) at 4.133x
Hackbench (Count: 32 - Type: Process) at 4.103x
Timed Linux Kernel Compilation (Time To Compile) at 4.08x.

Test Systems:

1600XStock

Processor: AMD Ryzen 5 1600X Six-Core @ 3.60GHz (12 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 469GB, Graphics: eVGA NVIDIA GeForce GTX 1060 6GB 6144MB (1607/4006MHz), Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 5.0.0-27-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Driver: NVIDIA 430.26, OpenGL: 4.6.0, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

1600X_39GHz

Processor: AMD Ryzen 5 1600X Six-Core @ 3.78GHz (12 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 469GB, Graphics: eVGA NVIDIA GeForce GTX 1060 6GB 6144MB (1607/4006MHz), Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 5.0.0-27-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Driver: NVIDIA 430.26, OpenGL: 4.6.0, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v

1800XStock

1800XOCAuto

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (16 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-24-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

TR1950XStock

Processor: AMD Ryzen Threadripper 1950X 16-Core @ 3.40GHz (32 Cores), Motherboard: MSI X399 GAMING PRO CARBON AC (MS-7B09) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 2000GB HUS724020ALA640 +

1000GB Samsung SSD 850, Graphics: NVIDIA GeForce RTX 2080 8192MB (1515/7000MHz), Audio: Realtek ALC1220, Network: Intel I211 Gigabit Connection + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Driver: NVIDIA 430.26, OpenGL: 4.6.0, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 3840x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
OpenCL Notes: GPU Compute Cores: 2944
System Notes: GPU Compute Cores: 2944.

2400GStock

Processor: AMD Ryzen 5 2400G with Radeon Vega @ 3.60GHz (8 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Device 15d0, Memory: 16384MB, Disk: 469GB, Graphics: eVGA NVIDIA GeForce GTX 1060 6GB 6144MB (1607/4006MHz), Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Driver: NVIDIA 430.26, OpenGL: 4.6.0, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand
OpenCL Notes: GPU Compute Cores: 1280
System Notes: GPU Compute Cores: 1280.

2400G_39All

Processor: AMD Ryzen 5 2400G with Radeon Vega @ 3.88GHz (8 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Device 15d0, Memory: 16384MB, Disk: 469GB, Graphics: eVGA NVIDIA GeForce GTX 1060 6GB 6144MB (1607/4006MHz), Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 5.0.0-23-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Driver: NVIDIA 430.26, OpenGL: 4.6.0, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v

2700XStock

Processor: AMD Ryzen 7 2700X Eight-Core @ 3.70GHz (16 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-24-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

2700XOC4050

Processor: AMD Ryzen 7 2700X Eight-Core @ 3.61GHz (16 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Family 17h, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v

3700XStock

Processor: AMD Ryzen 7 3700X 8-Core @ 3.60GHz (16 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Device 1480, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

3700XOC4250

Processor: AMD Ryzen 7 3700X 8-Core @ 4.25GHz (16 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Device 1480, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

3900XStock

Processor: AMD Ryzen 9 3900X 12-Core @ 3.80GHz (24 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Device 1480, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand

3900XOC4250

Processor: AMD Ryzen 9 3900X 12-Core @ 4.25GHz (24 Cores), Motherboard: MSI X470 GAMING M7 AC (MS-7B77) v1.0, Chipset: AMD Device 1480, Memory: 16384MB, Disk: 469GB, Graphics: NV136 6144MB, Audio: NVIDIA GP106 HD Audio, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.3 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

7700KStock

Processor: Intel Core i7-7700K @ 4.50GHz (8 Cores), Motherboard: Gigabyte Z170X-Gaming 7, Chipset: Intel Xeon E3-1200 v6/7th, Memory: 16384MB, Disk: 469GB, Graphics: Sapphire AMD Radeon RX 580 (POLARIS10 DRM 3.26.0 4.18.0-22-generic LLVM 7.0.0) 8192MB, Audio: Creative Recon3Di, Network: Intel Connection + Intel Dual Band Wireless-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-22-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.5 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave

7700K_5GHz

Processor: Intel Core i7-7700K @ 4.50GHz (8 Cores), Motherboard: Gigabyte Z170X-Gaming 7, Chipset: Intel Xeon E3-1200 v6/7th, Memory: 16384MB, Disk: 469GB, Graphics: Sapphire AMD Radeon RX 580 (POLARIS10 DRM 3.26.0 4.18.0-24-generic LLVM 7.0.0) 8192MB, Audio: Creative Recon3Di, Network: Intel Connection + Intel Dual Band Wireless-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-24-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.5 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave

7900XStock

7900XOC4300

Processor: Intel Core i7-7900X @ 4.30GHz (20 Cores), Motherboard: ASUS ROG STRIX X299-E GAMING, Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 16384MB, Disk: 469GB, Graphics: eVGA NVIDIA GeForce GTX 1060 6GB 6144MB (1607/4006MHz), Audio: Realtek ALC1220, Network: Intel Connection + Realtek RTL8822BE 802.11a/b/g/n/ac

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, Display Driver: NVIDIA 430.26, OpenGL: 4.6.0, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave
OpenCL Notes: GPU Compute Cores: 1280
System Notes: GPU Compute Cores: 1280.

8700KStock

Processor: Intel Core i7-8700K @ 4.70GHz (12 Cores), Motherboard: Gigabyte Z370 AORUS Ultra Gaming-CF, Chipset: Intel 8th Gen Core /DRAM, Memory: 16384MB, Disk: 469GB, Graphics: Sapphire AMD Radeon RX 580 (POLARIS10 DRM 3.26.0 4.18.0-24-generic LLVM 7.0.0) 8192MB, Audio: Realtek ALC1220, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.18.0-24-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.5 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave

8700K_5GHz

Processor: Intel Core i7-8700K @ 4.70GHz (12 Cores), Motherboard: Gigabyte Z370 AORUS Ultra Gaming-CF, Chipset: Intel 8th Gen Core /DRAM, Memory: 16384MB, Disk: 469GB, Graphics: Sapphire AMD Radeon RX 580 (POLARIS10 DRM 3.26.0 4.18.0-24-generic LLVM 7.0.0) 8192MB, Audio: Realtek ALC1220, Network: Intel Connection + Intel Dual Band Wireless-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-24-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.5 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --enable-libmpx --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave

9900KStock

Processor: Intel Core i9-9900K @ 5.00GHz (16 Cores), Motherboard: Gigabyte Z370 AORUS Ultra Gaming-CF, Chipset: Intel Device 3e30, Memory: 16384MB, Disk: 469GB, Graphics: Sapphire AMD Radeon RX 580 (POLARIS10 DRM 3.26.0 4.18.0-25-generic LLVM 7.0.0) 8192MB, Audio: Realtek ALC1220, Network: Intel Connection + Intel Dual Band Wireless-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.5 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

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9900K_5GHz

Processor: Intel Core i9-9900K @ 4.90GHz (16 Cores), Motherboard: Gigabyte Z370 AORUS Ultra Gaming-CF, Chipset: Intel Device 3e30, Memory: 16384MB, Disk: 469GB, Graphics: Sapphire AMD Radeon RX 580 (POLARIS10 DRM 3.26.0 4.18.0-25-generic LLVM 7.0.0) 8192MB, Audio: Realtek ALC1220, Network: Intel Connection + Intel Dual Band Wireless-AC 3168NGW

OS: Ubuntu 18.04, Kernel: 4.18.0-25-generic (x86_64), Desktop: GNOME Shell 3.28.4, OpenGL: 4.5 Mesa 18.2.8, Compiler: Clang 6.0.0-1ubuntu2 + LLVM 6.0.0, File-System: ext4, Screen Resolution: 1920x1080

	1600X Stock	1600X_39GHz	1800X Stock	1800X OC Auto	TR1950X Stock	2400G Stock	2400G _39 All	2700X Stock	2700X OC 4050	3700X Stock	3700X OC 4250	3900X Stock	3900X OC 4250	7700K Stock	7700K_5GHz	7900X Stock	7900X OC 4300	8700K Stock	8700K_5GHz	9900K Stock	9900K_5GHz
SVT-VP9 - 1.8.b.Y.T.V.V.E (FPS)	35.85	38.96	40.61	40.51	82.35	**24.66**	26.31	51.48	49.83	54.45	64.04	83.56	93.60	30.27	29.10	212.16	**221.45**	43.17	39.66	52.40	51.60
Normalized	16.19%	17.59%	18.34%	18.29%	37.19%	11.14%	11.88%	23.25%	22.56%	24.59%	28.92%	37.72%	42.07%	13.67%	13.10%	95.84%	100%	19.49%	17.91%	23.66%	23.31%
Standard Deviation	0.3%	0.4%	1.5%	1.7%	0.7%	0.1%	0.2%	0.1%	0.2%	0.1%	0.4%	0.3%	0%	0.1%	0.2%	1.1%	1.9%	0.2%	0.1%	0.1%	4.4%
Core-Latency - A.L.B.C.C (ns)	189.91	160.19	190.38	185.39	**407.20**	80.10	**47.96**	199.92	153.91	137.09	106.91	190.55		77.27	73.95	224.28	213.19	125.28	78.59	153.93	90.13
Normalized	25.25%	29.94%	25.19%	25.87%	11.78%	59.88%	100%	23.99%	31.16%	34.98%	44.86%	25.14%		62.07%	64.85%	21.38%	22.51%	38.28%	61.03%	31.16%	53.26%
Renaissance - Twitter Finagle (ms)	7583	6804	7713	7770		**8195**	7897	7336	6650	5712	5008	**1461**		4981	4973	5531	5346	5025	5169	4972	5038
Normalized	19.27%	21.48%	18.95%	18.81%		17.83%	18.51%	19.92%	21.97%	25.58%	29.18%	100%		29.34%	29.39%	26.41%	27.34%	29.08%	28.27%	29.39%	29.01%
Standard Deviation	4.1%	3.8%	1.1%	4%		3%	2.7%	2.7%	1.7%	1.7%	2.5%	3%		2.7%	2.6%	1.8%	3.2%	2.1%	4.9%	3.3%	1.6%
Y-Cruncher - C.5.P.D (sec)	53.63	49.13	48.39	50.57	24.56	**75.79**	70.83	38.23	37.94	24.86	22.77	24.43	21.43	35.78	38.68	15.70	**15.52**	28.62			
Normalized	28.94%	31.59%	32.07%	30.69%	63.19%	20.48%	21.91%	40.61%	40.91%	62.43%	68.16%	63.53%	72.42%	43.38%	40.12%	98.85%	100%	54.23%			

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Standard Deviation	0%	0.1%	0.6%	0.6%	1.9%	0.1%	0.1%	0.1%	0.2%	0%	0.1%	0.1%	0.2%	0.1%	1.9%	0.1%	0.2%	0%		
OpenSSL - R.4.b.P (Signs/s	1153	1250	1418	1372	2914	771.63	830.57	1695	1586	2116	2502	3324	3754	1378	1351	3065	3292	1978	1846	2468	2384
Normalized	30.7	33.3	37.7	36.5	77.6	20.5	22.1	45.1	42.2	56.3	66.6	88.5	100	36.7	35.9	81.6	87.6	52.7	49.1	65.7	63.5
Standard Deviation	1%	1%	9%	6%	2%	6%	3%	4%	5%	7%	5%	5%	%	1%	9%	4%	9%	%	9%	5%	1%
	0%	0%	1.8%	1.9%	0.1%	0%	0.1%	0.1%	0.1%	0%	0%	0.1%	0%	0.3%	0.4%	0.1%	0.1%	0.3%	0.2%	0.3%	0.2%
Timed LLVM Compilation - Time To Compile (sec)	755.63	707.10	665.45	687.32	346.53		1141	584.43	569.63	454.53	397.69	301.66	274.13	739.04	767.05	355.95	327.92	532.38	567.45	441.07	447.34
Normalized	36.2	38.7	41.1	39.8	79.1		24.0	46.9	48.1	60.3	68.9	90.8	100	37.0	35.7	77.0	83.6	51.4	48.3	62.1	61.2
	8%	7%	9%	8%	1%		3%	1%	2%	1%	3%	7%	%	9%	4%	1%	%	9%	1%	5%	8%
x264 - H.2.V.E (FPS)	54.84	61.07	62.83	61.83	123.41	36.64	39.94	77.47	76.08	83.94	102.57	130.04	151.44	51.15	49.86	108.57	113.78	72.57	69.00	86.58	85.02
Normalized	36.2	40.3	41.4	40.8	81.4	24.1	26.3	51.1	50.2	55.4	67.7	85.8	100	33.7	32.9	71.6	75.1	47.9	45.5	57.1	56.1
	1%	3%	9%	3%	9%	9%	7%	6%	4%	3%	3%	7%	%	8%	2%	9%	3%	2%	6%	7%	4%
Standard Deviation	1.8%	1.6%	0.5%	0.9%	1.4%	0.9%	0.2%	2.1%	1.7%	2.1%	2.3%	2.2%	2.4%	1.6%	2.2%	2.4%	1.4%	3.1%	2.1%	3.1%	2.5%
Hackbench - 32 - Process (sec)	114.53	106.62	86.05	88.95	50.04	152.87	151.45	75.79	74.30	67.55	57.99	53.53	43.02	171.91	176.52	81.07	76.91	117.50	125.54	81.87	84.17
Normalized	37.5	40.3	49.9	48.3	85.9	28.1	28.4	56.7	57.9	63.6	74.1	80.3	100	25.0	24.3	53.0	55.9	36.6	34.2	52.5	51.1
	6%	5%	9%	6%	7%	4%	1%	6%	%	9%	9%	7%	%	2%	7%	7%	4%	1%	7%	5%	1%
Standard Deviation	0.1%	0.5%	2.1%	2.7%	3.1%	0.1%	0.8%	1.2%	0.9%	3%	1.7%	1.3%	4.7%	0.1%	0.5%	0.8%	0.9%	0.4%	0.2%	3.7%	0.3%
Timed Linux Kernel Compilation - Time To Compile (sec)	117.02	108.17	105.94	108.80	56.38	178.72	169.15	86.20	86.83	73.49	62.27	50.74	45.10	121.84	127.86	59.33	55.85	87.73	95.46	73.39	75.42
Normalized	37.4	40.4	41.3	40.2	77.6	24.5	25.8	50.8	50.4	59.6	70.3	86.3	97.1	35.9	34.2	73.8	78.4	49.9	45.8	59.6	58.0
	3%	9%	4%	6%	9%	1%	9%	1%	4%	%	4%	2%	2%	5%	6%	2%	2%	3%	8%	8%	7%
Standard Deviation	1.4%	1.3%	1.4%	1.2%	3.1%	1%	0.9%	2%	2%	2.3%	1.4%	2.8%	1.1%	1.1%	1%	3.5%	2.9%	1.7%	1.5%	1.9%	2%

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7-Zip Compression - C.S.T (MIPS)	302 71	320 98	361 79	356 46	653 52	**195 23**	202 96	381 66	392 43	500 30	569 15	719 94	**792 64**	299 82	309 33	603 97	644 22	413 53	410 29	500 31	500 22
Normalized	38.1	40.5	45.6	44.9	82.4	24.6	25.6	48.1	49.5	63.1	71.8	90.8	100	37.8	39.0	76.2	81.2	52.1	51.7	63.1	63.1
Standard Deviation	9% 0.8%	% 0.8%	4% 0.5%	7% 1.4%	5% 0.4%	3% 0.6%	1% 0.2%	5% 0.7%	1% 0.6%	2% 0.7%	% 0.2%	3% 0.3%	% 0.2%	3% 1%	3% 1.2%	% 1.1%	8% 0.2%	7% 2%	6% 1.7%	2% 1%	1% 0.7%
Tachyon - Total Time (sec)	8.74	7.93	7.45	7.69	3.35	**12.55**	12.08	5.77	6.06	5.48	4.65	3.68	**3.10**	9.00	8.96	4.11	3.82	6.28	6.69	4.95	5.13
Normalized	35.4	39.0	41.6	40.3	92.5	24.7	25.6	53.7	51.1	56.5	66.6	84.2	100	34.4	34.6	75.4	81.1	49.3	46.3	62.6	60.4
Standard Deviation	7% 0.4%	9% 0.6%	1% 2.3%	1% 3.2%	4% 0.9%	% 0.7%	6% 0.2%	3% 0.7%	6% 0.8%	7% 0.1%	7% 0.7%	4% 1.3%	% 0.1%	4% 0.2%	% 0.2%	3% 0.4%	5% 0.1%	6% 0.3%	4% 0.1%	3% 0.1%	3% 0.2%
SVT-AV1 - 1.8.b.Y.T.A.V.E (FPS)	16.60	18.49	20.46	20.07	34.26	**12.50**	13.43	25.32	25.49	31.77	38.72	43.05	**50.35**	20.00	19.06	34.68	38.50	25.58	24.14	32.30	31.53
Normalized	32.9	36.7	40.6	39.8	68.0	24.8	26.6	50.2	50.6	63.1	76.9	85.5	100	39.7	37.8	68.8	76.4	50.8	47.9	64.1	62.6
Standard Deviation	7% 0.5%	2% 0.1%	4% 1.9%	6% 2.4%	4% 0.8%	3% 0.1%	7% 0%	9% 0.4%	3% 1%	% 0.5%	% 0.8%	% 0.2%	% 0.7%	2% 0.1%	6% 0.4%	8% 0.6%	6% 0.4%	% 0.2%	4% 0.5%	5% 0.3%	2% 0.2%
Aircrack-ng - P.T.S.v2.1 (k/s)			12467	**12068**				14752	13970	27262	32259	42954	**48371**	17787	18538			25491	28288	33870	35312
Normalized			25.7	24.9				30.5	28.8	56.3	66.6	88.8	100	36.7	38.3			52.7	58.4	70.0	73%
Standard Deviation			7% 2.4%	5% 3.4%				% 0.5%	8% 0%	6% 0.1%	9% 0%	% 0.5%	% 0.2%	7% 0.2%	2% 0.5%			% 0.2%	8% 0.3%	2% 0.4%	0.1%
Himeno Benchmark - P.P.S (MFLOP	101 0	103 8	105 0	113 1	107 2	**767 .07**	116 5	132 6	803 .43	108 9	112 7	107 0	994 .83	292 5	286 1	**297 5**	297 1	282 1	294 6	279 1	288 6
Normalized	33.9	34.8	35.2	38.0	36.0	25.7	39.1	44.5	27%	36.6	37.8	35.9	33.4	98.3	96.1	100	99.8	94.8	99.0	93.8	97%
Standard Deviation	5% 1.1%	8% 2.7%	8% 0.2%	3% 1.1%	2% 1.2%	8% 3.1%	6% 3.9%	7% 0.4%	11%	% 0.6%	9% 6.9%	8% 4%	4% 11.2 %	% 0.7%	6% 0.7%	% 0.7%	4% 0.5%	3% 0.2%	1% 0.8%	1% 2.5%	0.7%
John The Ripper - MD5 (Real	344064	384494	406346	392413	886306	**246331**	254990	580437	546730	**951463**					491255			751232	656678	864068	849544
Normalized	36.1	40.4	42.7	41.2	93.1	25.8	26.8	61%	57.4	100					51.6			78.9	69.0	90.8	89.2
Standard Deviation	6% 0.3%	1% 0.1%	1% 0.8%	4% 1%	5% 1.8%	9% 0%	% 0.5%	0.7%	6% 0.7%	% 0.2%					3% 0%			6% 0%	2% 0.1%	1% 0.1%	9% 0.2%

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Stockfish - Total Time (Nodes/s	161 232 23	175 301 66	181 500 92	176 990 51	363 821 28	108 737 24	116 731 85	226 271 44	227 641 45	243 387 55	279 103 17	363 317 85	412 416 95	135 564 58	126 892 81	299 209 62	317 890 19	193 640 26	172 437 52	228 256 99	222 920 15
Normalized	39.0	42.5	44.0	42.9	88.2	26.3	28.3	54.8	55.2	59.0	67.6	88.0	100	32.8	30.7	72.5	77.0	46.9	41.8	55.3	54.0
Standard Deviation	9% 1.2%	1% 1.8%	1% 0.5%	2% 2%	2% 2.1%	7% 2.3%	% 1%	6% 1.1%	% 1%	1% 1.2%	7% 0.2%	9% 0.4%	% 2.4%	7% 3.1%	7% 1%	5% 0.2%	8% 0.7%	5% 0.6%	1% 1.4%	5% 1.8%	5% 1%
m-queens - Time To Solve (sec)	106 .39	98. 05	91. 82	92. 84	43. 50	159 .02	153 .31	72. 22	77. 22	78. 27	66. 26	49. 84	44. 21	164 .44	147 .97	73. 66	68. 52	114 .72	118 .43	86. 28	90. 51
Normalized	40.8	44.3	47.3	46.8	100	27.3	28.3	60.2	56.3	55.5	65.6	87.2	98.3	26.4	29.4	59.0	63.4	37.9	36.7	50.4	48.0
Standard Deviation	9% 0.1%	7% 0%	8% 0.3%	5% 0.3%	% 0.6%	6% 0.5%	7% 9%	3% 0.1%	3% 0%	8% 0%	5% 0%	8% 0.1%	9% 0%	5% 0%	% 0%	6% 0%	9% 0.1%	2% 0%	3% 0.1%	2% 0%	6% 0%
N-Queens - Elapsed Time (sec)	21. 43	19. 74	17. 48	17. 88	8.4 7	31. 94	29. 77	14. 45	15. 53	15. 34	12. 98	9.7 8	8.7 1	29. 69	26. 75	13. 06	12. 14	20. 74	21. 33	15. 68	16. 33
Normalized	39.5	42.9	48.4	47.3	100	26.5	28.4	58.6	54.5	55.2	65.2	86.6	97.2	28.5	31.6	64.8	69.7	40.8	39.7	54.0	51.8
Standard Deviation	2% 0%	1% 0%	6% 2.3%	7% 2.3%	% 0%	2% 0%	5% 0%	2% 0%	4% 0%	2% 0%	5% 0%	1% 0%	4% 1%	3% 0%	6% 0.1%	5% 0%	7% 0.1%	4% 0%	1% 0.1%	2% 0.7%	7% 0.2%
NAMD - ATPase Simulation - 327,506 Atoms (days/ns)	3.3 677 1	3.1 516 8	3.3 128 9	3.3 776 5	1.5 090 3	4.9 282 7	4.6 077 4	2.3 456 5	2.3 740 5	2.2 920 7	1.9 520 4	1.5 010 0	1.3 396 6	3.0 539 8	3.2 562 5	1.4 070 1	1.3 135 8	2.1 339 0	2.4 482 9	1.8 801 9	1.8 898 9
Normalized	39.0	41.6	39.6	38.8	87.0	26.6	28.5	56%	55.3	57.3	67.2	87.5	98.0	43.0	40.3	93.3	100	61.5	53.6	69.8	69.5
Standard Deviation	1% 0.9%	8% 0.7%	5% 0.1%	9% 0.2%	5% 3.1%	5% 0%	1% 0.3%	0.3%	3% 0.1%	1% 0.3%	9% 0.1%	1% 0.6%	5% 0.7%	1% 0.1%	4% 0.2%	6% 0.2%	% 0.1%	6% 0.1%	5% 0.1%	6% 0.1%	1% 0.2%
asmFish - 1.H.M.2.D	165 341 65	181 721 61	182 545 20	186 182 14	343 221 39	112 498 21	117 953 86	237 479 07	233 821 53	256 098 54	292 985 06	367 888 05	418 804 58	147 568 89	144 802 29	322 699 77	345 815 41	211 285 57	199 818 80	270 141 81	252 294 84
Normalized	39.4	43.3	43.5	44.4	81.9	26.8	28.1	56.7	55.8	61.1	69.9	87.8	100	35.2	34.5	77.0	82.5	50.4	47.7	64.5	60.2
Standard Deviation	8% 0.7%	9% 2.5%	9% 0.7%	6% 3.1%	5% 0.7%	6% 2%	6% 3.3%	% 1.4%	3% 1.1%	5% 1.9%	6% 0.4%	4% 0.8%	% 1.2%	4% 0.7%	8% 1.1%	5% 0.9%	7% 3.1%	5% 1.4%	1% 1.5%	% 1.1%	4% 0.8%

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John The Ripper - Blowfish (Real	111 03	125 75	114 69	137 92	**300 44**	**807 3**	826 3	175 11	166 31	172 33	204 11	227 13	291 95		831 7	194 38	206 72	123 86	112 90	150 62	145 21
Normalized	36.9	41.8	38.1	45.9	100	26.8	27.5	58.2	55.3	57.3	67.9	75.6	97.1		27.6	64.7	68.8	41.2	37.5	50.1	48.3
Standard Deviation	6% 0.4%	6% 1.5%	7% 2.1%	1% 0.8%	% 0.3%	7% 3.3%	% 3.4%	8% 1.1%	6% 2.2%	6% 0.1%	4% 0.2%	% 1.5%	7% 0.1%		8% 0.1%	% 0%	1% 2.3%	3% 0%	8% 0.2%	3% 0.2%	3% 0.3%
Primesieve - 1.P.N.G (sec)	38. 55	35. 38	34. 98	36. 49	14. 84	**53. 17**	49. 39	24. 78	25. 65	25. 37	21. 42	16. 19	**14. 35**	45. 58	48. 23	19. 57	18. 31	32. 00	35. 73	27. 08	27. 73
Normalized	37.1	40.5	40.9	39.2	96.5	26.9	29.0	57.8	55.8	56.4	66.9	88.5	99.8	31.4	29.7	73.2	78.2	44.7	40.1	52.9	51.6
Standard Deviation	7% 0.3%	% 0.1%	7% 1.2%	7% 1%	6% 0.2%	5% 0.2%	1% 0.2%	3% 0.2%	7% 0.3%	8% 0.2%	% 0.2%	1% 0.1%	6% 0.3%	4% 0.1%	1% 0.3%	2% 0.1%	6% 0.7%	8% 0.2%	1% 0.2%	2% 0.4%	8% 0.7%
C-Ray - Total Time - 4.1.R.P.P (sec)	119 .29	109 .95	110 .50	112 .37	51. 38	**177 .70**	165 .14	81. 73	86. 34	87. 00	73. 60	55. 29	**49. 21**	162 .32	165 .20	73. 26	68. 08	113 .31	124 .42	91. 38	95. 98
Normalized	41.1	44.6	44.4	43.6	95.5	27.6	29.7	60.0	56.8	56.4	66.7	88.7	99.7	30.2	29.7	67.0	72.1	43.3	39.4	53.7	51.1
Standard Deviation	5% 0%	5% 0.1%	3% 0.9%	9% 0.7%	4% 1.9%	3% 0%	3% 0.1%	6% 0.2%	6% 0%	3% 0%	% 0.1%	9% 0.1%	6% 0%	4% 0%	2% 0%	1% 0%	1% 0.1%	2% 0%	6% 0.1%	2% 0%	5% 0%
Smallpt - G.I.R.1.S (sec)	18. 34	16. 89	15. 88	16. 43	**7.5 5**	**27. 16**	25. 32	12. 67	13. 39	13. 34	11. 28	8.9 5	7.8 0	22. 08	22. 63	11. 30	10. 49	15. 52	17. 03	12. 70	13. 31
Normalized	41.1	44.7	47.5	45.9	100	27.8	29.8	59.5	56.3	56.6	66.9	84.3	96.7	34.1	33.3	66.8	71.9	48.6	44.3	59.4	56.7
Standard Deviation	7% 0.1%	% 0.1%	4% 2.5%	5% 3%	% 0.4%	% 0%	2% 0.1%	9% 0.4%	9% 0.1%	% 0.2%	3% 0.1%	6% 0.4%	9% 0.4%	9% 0.3%	6% 0.5%	1% 9.8%	7% 5.9%	5% 0.4%	3% 0.1%	5% 0.9%	2% 0.1%
SVT-HEVC - 1.8.b.Y.T.H.V.E (FPS)	102 .81	113 .78	123 .99	122 .09	215 .01	**74. 70**	79. 23	143 .45	149 .37	175 .10	203 .59	221 .98	**260 .91**	109 .34	104 .52	223 .45	235 .91	149 .31	140 .90	173 .64	
Normalized	39.4	43.6	47.5	46.7	82.4	28.6	30.3	54.9	57.2	67.1	78.0	85.0	100	41.9	40.0	85.6	90.4	57.2	54%	66.5	
Standard Deviation	% 0.9%	1% 0.4%	2% 0.9%	9% 0.9%	1% 0.4%	3% 0.6%	7% 0.5%	8% 1.1%	5% 0.8%	1% 1.2%	3% 0.9%	8% 0.6%	% 0.4%	1% 0.5%	6% 0.5%	4% 1%	2% 1.4%	3% 0.9%	0.6%	5% 0.7%	

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XZ Compression - C.u.1.0.3.s.i.i.C.L.9 (sec)	49.22	47.47	41.86	42.29	27.71	**64.94**	62.62	42.86	39.88	33.59	31.46	26.52	24.92	38.93	37.20	20.75	**20.03**	32.64	31.96	28.79	29.32
Normalized	40.6	42.2	47.8	47.3	72.2	30.8	31.9	46.7	50.2	59.6	63.6	75.5	80.3	51.4	53.8	96.5	100	61.3	62.6	69.5	68.3
Standard Deviation	9% 0.5%	% 0.4%	5% 1.1%	6% 0.6%	8% 1.8%	4% 0.4%	9% 1.2%	3% 0.2%	3% 0.2%	3% 0.1%	7% 0.3%	3% 0.4%	8% 0.3%	5% 1.1%	4% 1%	3% 0.4%	% 1%	7% 0.6%	7% 0.3%	7% 0.3%	2% 0.1%
POV-Ray - Trace Time (sec)			70.74	73.05				51.58	53.45	50.70	43.20	32.95	**29.24**	86.73	**92.86**			60.86	69.45	52.56	53.25
Normalized			41.1	39.8				56.4	54.5	57.4	67.4	88.4	99.6	33.5	31.3			47.8	41.9	55.4	54.7
Standard Deviation			8% 2.3%	8% 1.7%				8% 0.3%	% 0%	6% 0.1%	3% 0.1%	1% 0.3%	2% 0.1%	9% 0.1%	7% 0.1%			6% 0.2%	4% 0.1%	2% 0.3%	% 0.1%
DaCapo Benchmark - Tradesoap	7365				5430	**10692**	9951			4752	3967	3955	**3377**	6014	6330	4212	3674	4546	4604	4186	4285
Normalized	45.8				62.1	31.5	33.9			71.0	85.1	85.3	100	56.1	53.3	80.1	91.9	74.2	73.3	80.6	78.8
Standard Deviation	5% 5.5%				9% 0.4%	8% 1.5%	4% 2.7%			6% 2%	3% 2.8%	9% 0.9%	% 1.2%	5% 2.5%	5% 4.5%	8% 0.4%	2% 1.7%	9% 3.7%	5% 2.1%	7% 3%	1% 2.3%
FFmpeg - H.2.H.T.	5.53	4.88	7.98	7.86	7.92	6.24	5.62	7.61	6.22	7.60	5.18	7.25	4.98	4.94	4.85	**13.20**	9.23	4.35	**4.17**	5.07	4.78
Normalized	75.4	85.4	52.2	53.0	52.6	66.8	74.2	54.8	67.0	54.8	80.5	57.5	83.7	84.4	85.9	31.5	45.1	95.8	100	82.2	87.2
Standard Deviation	1% 1.6%	5% 0.8%	6% 1.3%	5% 1.4%	5% 0.9%	3% 1.3%	% 0.7%	% 1.6%	4% 1.7%	7% 0.7%	% 0.6%	2% 0.5%	3% 0.7%	1% 1.6%	8% 0.9%	9% 0.9%	8% 0.6%	6% 1%	% 1.3%	5% 1.4%	4% 1.3%
Parallel BZIP2 Compression - 2.F.C (sec)	5.93	5.48	5.07	5.00		**9.56**	9.14	4.47	4.41	3.69	**3.14**			7.08	6.89	3.41	3.18	5.18	5.32	3.97	4.11
Normalized	52.9	57.3	61.9	62.8		32.8	34.3	70.2	71.2	85.0	100			44.3	45.5	92.0	98.7	60.6	59.0	79.0	76.4
Standard Deviation	5% 0.4%	% 0.8%	3% 3%	% 1.2%		5% 0.2%	5% 0.4%	5% 0.9%	% 1.3%	9% 0.8%	% 1.2%			5% 0.6%	7% 0.3%	8% 0.5%	4% 1.2%	2% 0.9%	2% 1%	9% 0.5%	% 1.3%

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Zstd Compression - C.u.1.0.3.s.i.i.C.L.1 (sec)	35.85	34.74	29.89	30.23	18.11	46.30	44.52	31.24	28.72	23.34	22.78	19.88	18.16	26.45	25.72	15.50	15.24	23.52	23.39	25.47	25.27
Normalized	42.5	43.8	50.9	50.4	84.1	32.9	34.2	48.7	53.0	65.3	66.9	76.6	83.9	57.6	59.2	98.3	100	64.8	65.1	59.8	60.3
Standard Deviation	1% 0.9%	7% 0.5%	9% 0.7%	1% 0.7%	5% 0.2%	2% 0.2%	3% 0.9%	8% 2.6%	6% 0.4%	% 1.4%	% 0.7%	6% 0.1%	2% 0.1%	2% 0.7%	5% 0.8%	2% 0.6%	% 0.3%	% 0.3%	6% 0.6%	4% 0.2%	1% 0.3%
ebizzy - P.T.S.v.2.1 (Records/s)	402985	524772	420453	394433	859853	83047	80971	544214	511794	53715	53681	1061528	1270	304882	296790	383062	356871	402755	393753	387743	416173
Normalized	31.6	41.1	32.9	30.9	67.4	6.51	6.35	42.6	40.1	4.21	4.21	83.5	100	23.9	23.2	30.0	27.9	31.5	30.8	30.4	32.6
Standard Deviation	% 2.7%	5% 0.2%	7% 2.2%	3% 3.9%	3% 3.7%	% 0.4%	% 0.7%	8% 5.3%	3% 4.6%	% 1.8%	% 1.9%	4% 2.6%	% 1%	1% 0.7%	7% 7.7%	4% 1.3%	8% 9.2%	8% 5.7%	8% 2.7%	1% 2%	4% 6.1%
x265 - H.2.1.V.E (FPS)	6.33	6.96	6.73	6.62	10.51	4.47	4.83	8.70	8.48	8.75	10.48	11.38	13.16	5.42	5.17	9.81	10.74	7.43	6.82	8.76	8.41
Normalized	48.1	52.8	51.1	50.3	79.8	33.9	36.7	66.1	64.4	66.4	79.6	86.4	100	41.1	39.2	74.5	81.6	56.4	51.8	66.5	63.9
Standard Deviation	% 0.7%	9% 0.5%	4% 0.7%	% 1.8%	6% 1%	7% 0.3%	% 0.3%	1% 0.1%	4% 0.3%	9% 0.3%	4% 0.5%	7% 0.4%	% 0.1%	9% 0.9%	9% 0.2%	4% 0.4%	1% 0.2%	6% 0.2%	2% 0.4%	7% 0.2%	1% 0.2%
SciMark - D.L.M.F (Mflops)	384.02	405.81	446.53	502.95	430.73	432.93	401.64	508.54	397.09	521.89	609.47	550.18	599.10	1007	1120	958.31	959.83	1054	1123	1076	1054
Normalized	34.1	36.1	39.7	44.7	38.3	38.5	35.7	45.2	35.3	46.4	54.2	48.9	53.3	89.6	99.7	85.3	85.4	93.8	100	95.7	93.8
Standard Deviation	9% 2.5%	3% 0.9%	6% 4.5%	8% 10.7 %	5% 9.1%	5% 3.5%	6% 0.1%	8% 6.9%	5% 4.1%	7% 3.4%	6% 1.1%	9% 1.7%	4% 3.3%	2% 0.3%	1% 0.1%	2% 0.1%	6% 0.1%	8% 0.1%	% 0%	8% 0%	6% 0.1%
Timed MrBayes Analysis - P.P.A (sec)	172.31	160.70	155.92	161.21	81.23	229.72	223.01	127.03	122.47	124.64	121.95	94.93	88.73	179.42	190.05	93.39	87.55	133.46	148.27	122.43	124.97
Normalized	47.1	50.5	52.1	50.3	100	35.3	36.4	63.9	66.3	65.1	66.6	85.5	91.5	45.2	42.7	86.9	92.7	60.8	54.7	66.3	65%
Standard Deviation	4% 0.6%	5% 0.4%	% 0.7%	9% 0.5%	% 3.4%	6% 0.1%	2% 0.3%	5% 0.1%	3% 0.5%	7% 0.1%	1% 0%	7% 0.3%	5% 0.1%	7% 0%	4% 0.1%	8% 0.2%	8% 1%	6% 0.1%	9% 0%	5% 0.1%	0.1%

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Open FMM Nero2D - Total Time (sec)			59.67	62.14				47.43	50.52	45.67	39.02	31.58	**27.81**	74.76	**77.77**			54.57	57.71	43.70	45.45
Normalized			46.6	44.7				58.6	55.0	60.8	71.2	88.0	100	37.2	35.7			50.9	48.1	63.6	61.1
Standard Deviation			1% 0.7%	5% 0.8%				3% 1.1%	5% 1%	9% 0.4%	7% 1.8%	6% 0.3%	% 0.7%	% 0.3%	6% 4.7%			6% 0.7%	9% 0.3%	4% 0.8%	9% 0.2%
TTSIOD 3D Renderer - P.R.W.S. S.M (FPS)	270.83	294.88	315.65	306.49	421.57	**233.12**	239.99	378.62	377.58	448.34	517.77	501.48	**641.18**	285.51	276.40	514.12	537.28	395.54	366.56	476.26	463.34
Normalized	42.2	45.9	49.2	47.8	65.7	36.3	37.4	59.0	58.8	69.9	80.7	78.2	100	44.5	43.1	80.1	83.8	61.6	57.1	74.2	72.2
Standard Deviation	4% 0.4%	9% 0.3%	3% 0.4%	% 1%	5% 0.1%	6% 0.2%	3% 0.2%	5% 0.1%	9% 0.9%	2% 0.2%	5% 0.3%	1% 1.3%	% 1.5%	3% 0.4%	1% 0.2%	8% 0.3%	% 3.1%	9% 0.4%	7% 0.3%	8% 0.3%	6% 0.4%
BLAKE2 - P.T.S.v2.1 (Cycles/	10.10	10.09	10.11	9.71	10.09	10.10	10.09	8.82	**11.05**	10.09	8.55	10.11	9.04	5.37	4.82	6.37	4.46	4.32	**4.24**	4.32	4.40
Normalized	41.9	42.0	41.9	43.6	42.0	41.9	42.0	48.0	38.3	42.0	49.5	41.9	46.9	78.9	87.9	66.5	95.0	98.1	100	98.1	96.3
Standard Deviation	8% 0.1%	2% 0%	4% 0%	7% 5%	2% 0%	8% 0.1%	2% 0%	7% 0.7%	7% 0%	2% 0%	9% 0.1%	4% 0%	% 0%	6% 0.1%	7% 0.2%	6% 72.6 %	7% 0%	5% 0.1%	% 0%	5% 0.2%	6% 0.3%
Timed PHP Compilation - Time To Compile (sec)	74.02	68.77	73.17	73.50	59.86	**104.37**	99.79	63.27	64.39	52.97	45.12	46.09	**40.67**	68.27	68.90	50.23	47.32	52.55	53.92	48.45	49.08
Normalized	54.3	58.4	54.9	54.6	67.1	38.5	40.2	63.5	62.4	75.8	89.1	87.2	98.8	58.8	58.3	80.0	84.9	76.5	74.5	82.9	81.9
Standard Deviation	1% 0.5%	6% 1.9%	4% 0.6%	9% 1%	6% 0.5%	2% 0.2%	8% 0.4%	4% 0.7%	3% 0.8%	9% 0.9%	% 0.4%	2% 0.3%	4% 0.3%	8% 0.5%	5% 0%	3% 0.3%	5% 0.1%	% 0.1%	5% 0.3%	7% 0.3%	1% 0.3%
CloverLeaf - L.E.H (sec)	4.52	4.71	4.99	5.01	2.75	5.14	5.64	5.21	4.75	5.25	5.03	3.75	3.66	3.85	3.81	2.44	**2.43**	4.10	4.04	5.64	**5.80**
Normalized	53.7	51.5	48.7	48.5	88.3	47.2	43.0	46.6	51.1	46.2	48.3	64.8	66.3	63.1	63.7	99.5	100	59.2	60.1	43.0	41.9
Standard Deviation	6% 0.2%	9% 0.4%	% 0.4%	% 0.5%	6% 0.6%	8% 0.1%	9% 2%	4% 0.2%	6% 0.5%	9% 0.4%	1% 0%	% 0.4%	9% 0.2%	2% 0.1%	8% 0%	9% 0.6%	% 0.5%	7% 0.1%	5% 0.2%	9% 0%	% 0%

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High Performance Conjugate Gradient - P.T.S.v.2.1 (GFLOP/s)	1.09	1.11	1.08	1.11	**0.78**	1.05	1.06	0.99	1.20	0.97	1.01	0.83	1.01	1.78	**1.83**	1.44	1.48	1.73	**1.83**	1.72	1.73
Normalized	59.56%	60.61%	59.02%	60.61%	42.62%	57.38%	57.92%	54.19%	65.57%	53.01%	55.19%	45.36%	55.19%	97.27%	100%	78.69%	80.87%	94.54%	100%	93.99%	94.54%
Standard Deviation	0.9%	1.3%	1%	1.3%	0%	0.8%	1.3%	1.3%	0.9%	1%	0.3%	1.1%	1.7%	0.4%	1.4%	0.1%	0.9%	1.8%	1.1%	0.9%	0.6%
CP2K Molecular Dynamics - Fayalite-FIST Data	592.93	537.16	606.95	606.31	652.88	432.74	404.62	555.04	567.93	367.88	**314.03**	366.11	319.77	537.27	424.83	**719.91**	656.40	599.11	571.31	638.50	634.83
Normalized	52.96%	58.46%	51.76%	51.76%	48.19%	72.57%	77.62%	56.58%	55.29%	85.36%	100%	85.77%	98.27%	58.46%	73.96%	43.62%	47.89%	52.46%	54.99%	49.18%	49.47%
CacheBench - R.M.W (MB/s)	16577	18894	17250	18480	**16359**	17481	19266	20393	17367	25826	30500	27270	30016	33310	**37013**	31732	31830	34637	37002	35456	34744
Normalized	44.79%	51.05%	46.61%	49.93%	44.21%	47.23%	52.05%	55.10%	46.93%	69.77%	82.43%	73.68%	81.09%	90%	100%	85.73%	86%	93.58%	99.95%	95.75%	93.86%
Standard Deviation	0.1%	3.9%	1.1%	1.5%	1.5%	0.8%	0.5%	0.5%	0.2%	0.1%	0.1%	0.1%	4.1%	0%	0%	0%	0%	0.1%	0.1%	0%	0%
FFTW - Float + SSE - 2D FFT Size 4096 (Mflops)	14346	15055	14615	14992	**12577**	14006	14994	14978	15004	18250	18485	16189	18898	26364	**27682**	20228	20518	26441	27269	26427	26703
Normalized	51.82%	54.39%	52.81%	54.16%	45.43%	50.60%	54.16%	54.16%	54.21%	65.96%	66.79%	58.48%	68.27%	95.23%	100%	73.07%	74.12%	95.52%	98.51%	95.48%	96.47%
Standard Deviation	2.3%	0.6%	3%	1.9%	3.3%	0.4%	1.1%	2.2%	1.3%	1.7%	2.1%	1.6%	2%	1.2%	0.4%	0.4%	1%	3.3%	0.5%	2%	2%

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Multichase Pointer Chaser - 1.A.2.B.S	74.19	72.83	75.95	75.55	**101.07**	71.48	71.46	84.25	68.46	74.29	71.46	86.42	70.78	46.98	**46.67**	69.60	68.95	48.45	47.53	46.07	46.80
Normalized	62.91%	64.08%	61.45%	61.77%	46.18%	65.29%	65.31%	55.39%	68.17%	62.82%	65.31%	54%	65.94%	99.34%	100%	67.05%	67.69%	96.33%	98.19%	99.15%	99.72%
Standard Deviation	0.1%	0.2%	0.8%	1.1%	0.1%	0.1%	0.2%	2%	0.2%	0%	0%	1.1%	0%	0.2%	0%	0.3%	0.2%	0%	0%	0%	0%
NAMD CUDA - ATPase Simulation - 327,506 Atoms (days/ns)	0.30164	0.30136			**0.16416**	0.30388	**0.30483**									0.20842	0.20802				
Normalized	51.88%	52.34%			100%	48.45%	47.15%									57.75%	58.57%				
Standard Deviation	2.1%	0.9%			3%	0.2%	0.7%									0.8%	0.5%				
Bork File Encrypter - F.E.T (sec)	10.92	9.97	10.87	10.23	**11.35**	10.99	9.92	9.26	10.38	9.80	8.52	9.63	8.52	6.00	**5.40**	6.49	6.40	5.79	5.42	5.51	5.67
Normalized	49.45%	54.17%	49.68%	52.79%	47.58%	49.14%	54.48%	58.32%	52.02%	55.10%	63.38%	56.03%	63.38%	90%	100%	83.23%	84.30%	93.26%	99.63%	98%	95.24%
Standard Deviation	1.7%	0.8%	1.5%	0.7%	0.2%	0.7%	1.5%	0.7%	0.2%	0.1%	0.2%	0.4%	0.8%	0.4%	0%	1.7%	0.6%	0.9%	0.9%	0.3%	1.9%
Sudokut - Total Time (sec)	16.90	15.12	17.08	16.17	**17.67**	16.72	15.13	14.62	15.89	14.55	11.74	13.84	11.78	9.30	**8.43**	10.99	9.53	9.04	8.46	8.92	9.04
Normalized	49.88%	55.75%	49.36%	52.15%	47.71%	50.45%	55.75%	57.66%	53.05%	57.91%	71.85%	60.91%	71.58%	90.66%	100%	76.71%	88.46%	93.26%	99.63%	94.52%	93.24%
Standard Deviation	1.6%	0.1%	0.1%	0.1%	0.1%	0.6%	0.1%	0.4%	0.1%	0.2%	0.1%	0.1%	0%	0.2%	0.3%	0.6%	0.5%	0.4%	0.2%	0.2%	0.4%
LuaJIT - D.L.M.F (Mflops)	3036	3162	2983	3169	2880	**2132**	2218	3464	2993	3361	3975	3533	3975	4019	4426	3752	3750	4258	**4462**	4368	4306
Normalized	68.06%	70.88%	66.86%	71.03%	64.57%	47.78%	49.73%	77.66%	67.03%	75.31%	89.05%	79.13%	89.05%	90.07%	99.24%	84.11%	84.06%	95.42%	100%	97.92%	96.52%
Standard Deviation	1.1%	0.4%	12%	1.1%	0.8%	0.3%	0.8%	1.2%	1.8%	0.1%	0.4%	0.3%	0.1%	0.4%	0.3%	0.9%	0.9%	0.2%	0.8%	0.4%	0.1%

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Timed HMMer Search - P.D.S (sec)	7.87	6.83	7.57	7.62	6.49	**9.18**	8.53	6.86	6.25	9.11	6.96	8.63	6.65	6.10	6.14	7.08	6.05	4.96	5.04	**4.60**	4.73
Normalized	58.4	67.3	60.7	60.3	70.8	50.1	53.9	67.0	73.6	50.4	66.0	53.3	69.1	75.4	74.9	64.9	76.0	92.7	91.2	100	97.2
Standard Deviation	5% 1.2%	5% 1%	7% 0.3%	7% 0.7%	8% 1.5%	1% 1.1%	3% 0.8%	6% 1.5%	% 1.3%	9% 1.3%	9% 1.6%	% 3.5%	7% 0.6%	1% 0.3%	2% 0.4%	7% 1.8%	3% 1%	4% 0.3%	7% 0.2%	% 0.3%	5% 0.1%
Java SciMark - D.L.M.F (Mflops)	4213	4596	4177	4403	**3963**	4340	4620	4911	4345	5633	6582	5977	6704	6708	**7409**	5381	5367	6743	7327	6862	6675
Normalized	56.8	62.0	56.3	59.4	53.5	58.5	62.3	66.2	58.6	76.0	88.8	80.6	90.4	90.5	100	72.6	72.4	91.0	98.9	92.6	90.1
Standard Deviation	7% 1%	3% 0.7%	8% 0.4%	3% 2.2%	% 3.2%	8% 0.2%	5% 0.9%	9% 0.2%	5% 0.4%	4% 4.3%	5% 2.8%	8% 0.3%	9% 0.4%	4% 1.3%	% 2%	3% 2.3%	5% 1.3%	2% 2.1%	% 2.3%	2% 2.6%	% 1%
System Libxml2 Parsing - 112 MB (ms)	86638	80045	86795	82260	**91591**	86918	79731	73776	84592	77004	65141	73378	65072	55862	49438	57048	57070	52216	**49268**	50985	52081
Normalized	56.8	61.5	56.7	59.8	53.7	56.6	61.7	66.7	58.2	63.9	75.6	67.1	75.7	88.2	99.6	86.3	86.3	94.3	100	96.6	94.6
Standard Deviation	7% 0.5%	5% 0.2%	6% 1.1%	9% 1.5%	9% 0.1%	8% 0.9%	9% 0.2%	8% 0.8%	4% 1.1%	8% 0.2%	3% 0.2%	4% 0.2%	1% 0.1%	% 3.3%	6% 0.4%	6% 0.2%	3% 0.3%	5% 0%	% 0.3%	3% 0%	% 0.2%
Timed ImageMagick Compilation - Time To Compile (sec)			47.02	**47.47**				44.73	42.42	34.94	31.40	30.19	**26.01**	45.94	46.91			36.33	37.79	32.69	33.07
Normalized			54.3	53.8				57.1	60.2	73.1	81.4	84.7	98.3	55.6	54.5			70.3	67.6	78.2	77.3
Standard Deviation			8% 1%	7% 0.4%				7% 0.3%	8% 0.8%	8% 0.8%	3% 0.2%	% 0.7%	1% 0.2%	6% 0.3%	1% 0.3%			8% 0.3%	6% 0.3%	2% 0.3%	2% 0.3%
Perl Benchmarks - Pod2html (sec)			**0.1768527**	0.1631040				0.1467275	0.1699092	0.1455697	0.1230144	0.1377175	0.1201902	0.1059435	**0.0960649**			0.1022101	0.0973882	0.1007880	0.1016888
Normalized			54.3	58.9				65.4	56.5	65.9	78.0	69.7	79.9	90.6	100			93.9	98.6	95.3	94.4
Standard Deviation			2% 0.7%	% 2.6%				7% 0.2%	4% 0.9%	9% 0.1%	9% 0.4%	6% 0.3%	3% 0.4%	8% 0.7%	% 0.6%			9% 0.2%	4% 0.7%	1% 0.4%	7% 0.5%

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GNU MPC - M.P.B (Global Score)	6920	7443	6837	7413	**6510**	6893	7297	8057	7100	7627	9037	8003	8973	10600	**11700**	9047	9093	11000	**11700**	11267	11000
Normalized	59.1%	63.6%	58.4%	63.3%	55.6%	58.9%	62.3%	68.8%	60.6%	65.1%	77.2%	68.4%	76.6%	90.6%	100%	77.3%	77.7%	94.0%	100%	96.3%	94.0%
Standard Deviation	0%	0.4%	0.4%	0.4%	0.3%	0.2%	4.1%	0.4%	0.4%	0.1%	0.1%	0.1%	0.1%	0%	0%	0.7%	0.1%	0%	0%	0.5%	0%
glibc bench - cos (nanoseconds)	47709	44170	47652	44220	**50356**	47839	44331	40644	46803	41709	35315	39520	35375	32071	**28798**	33713	33641	30713	28832	30026	31192
Normalized	60.3%	65.2%	60.4%	65.1%	57.1%	60.2%	64.9%	70.8%	61.5%	69.0%	81.5%	72.8%	81.4%	89.7%	100%	85.4%	85.6%	93.7%	99.8%	95.9%	92.3%
Standard Deviation	1%	0.8%	1.7%	1.1%	0.5%	0.9%	0.8%	0.2%	1.1%	0.1%	0%	0%	0.1%	0.3%	0%	0%	0.2%	0.1%	0.2%	0.1%	3.5%
LLVM Test Suite - Time To Run	257.68	236.86	227.25	211.47	**271.69**	261.35	240.72	189.83	213.68	208.68	175.32	198.17	175.39	174.20	157.84	221.87	217.14	167.61	**156.81**	164.40	167.17
Normalized	60.8%	66.2%	69%	74.1%	57.7%	60%	65.1%	82.6%	73.3%	75.1%	89.4%	79.1%	89.4%	90.0%	99.3%	70.6%	72.2%	93.5%	100%	95.3%	93.8%
Standard Deviation	0.4%	0.2%	0.4%	0.5%	0.4%	0.3%	0.4%	0.4%	0.2%	0.2%	0.3%	0.2%	0.2%	0.7%	0.4%	0.1%	0.1%	0.8%	0.6%	0.5%	0.5%
GnuPG - 2.F.E (sec)	13.79	12.72	13.79	12.92	**14.62**	13.80	12.79	11.66	13.39	11.28	9.5	10.70	9.5	9.47	**8.54**	10.09	10.07	9.13	8.56	8.88	9.07
Normalized	61.9%	67.1%	61.9%	66.1%	58.4%	61.8%	66.7%	73.2%	63.7%	75.7%	89.4%	79.8%	89.4%	90.1%	100%	84.6%	84.8%	93.5%	99.7%	96.1%	94.1%
Standard Deviation	0.2%	0.1%	0.2%	0.8%	0.2%	0.1%	0.3%	1.1%	0.3%	0.3%	0.4%	0.2%	0.3%	0.3%	0.3%	0.7%	0.8%	0.3%	0.2%	0.2%	0.6%
LAME MP3 Encoding - WAV To MP3 (sec)	39.01	35.85	38.88	36.43	**41.13**	38.96	36.05	33.06	37.76	31.32	26.52	29.70	26.52	26.68	**24.03**	27.85	27.79	25.63	**24.03**	25.06	25.61
Normalized	61.6%	67.0%	61.8%	65.9%	58.4%	61.6%	66.6%	72.6%	63.6%	76.7%	90.6%	80.9%	90.6%	90.0%	100%	86.2%	86.4%	93.7%	100%	95.8%	93.8%
Standard Deviation	0.3%	0.1%	0.1%	0.1%	0%	0.3%	0.4%	0.4%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0%	0%	0.1%	0.1%	0%	0.2%

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CLOMP - Static OMP Speedup (Speedup)	4.49	3.60	5.57	5.62	3.61	5.04	4.50	4.03	4.74	4.78	4.52	3.34	3.46	4.66	4.65	4.05	4.10	4.81	5.14	5.66	5.50
Normalized	79.3	63.6	98.4	99.2	63.7	89.0	79.5	71.2	83.7	84.4	79.8	59.0	61.1	82.3	82.1	71.5	72.4	84.9	90.8	100	97.1
Standard Deviation	3% 3.4%	% 7.3%	1% 26.2 %	9% 6.4%	8% 3.2%	5% 0.7%	1% 1%	% 2.5%	5% 4.8%	5% 4.2%	6% 2.1%	1% 1.5%	3% 3.5%	3% 0.3%	6% 0.1%	5% 5.8%	4% 1%	8% 1.6%	1% 1.1%	% 1.8%	7% 2.2%
lzbench - XZ 0 (MB/s)	28	30	28	30	27	29	30	34	29	30	35	31	35	41	45	39	40	42	45	43	43
Normalized	62.2	66.6	62.2	66.6	60%	64.4	66.6	75.5	64.4	66.6	77.7	68.8	77.7	91.1	100	86.6	88.8	93.3	100	95.5	95.5
Standard Deviation	2% 0%	7% 3.3%	2% 0%	7% 0%	0%	4% 2%	7% 1.9%	6% 0%	4% 2%	7% 1.9%	8% 0%	9% 0%	8% 0%	1% 0%	% 0%	7% 1.5%	9% 1.5%	3% 1.4%	% 0%	6% 1.3%	6% 1.4%
Crafty - Elapsed Time (Nodes/s	629 527 0	687 003 2	638 289 8	675 191 9	596 166 3	635 224 5	686 571 5	757 959 8	661 996 9	746 772 3	885 872 1		884 325 4	892 547 4	982 151 1	849 699 9	852 583 0	933 400 4	990 177 2	951 979 6	935 690 5
Normalized	63.5	69.3	64.4	68.1	60.2	64.1	69.3	76.5	66.8	75.4	89.4		89.3	90.1	99.1	85.8	86.1	94.2	100	96.1	94.5
Standard Deviation	8% 0.4%	8% 0.9%	6% 0.1%	9% 0.1%	1% 0.3%	5% 0.2%	4% 0.4%	5% 0.2%	6% 0.4%	2% 0.1%	7% 0.2%		1% 0.7%	4% 0.1%	9% 0.1%	1% 0.1%	% 0.1%	7% 0.3%	% 0.3%	4% 0.3%	% 0.1%
dcraw - R.T.P.I.C (sec)	51.31	47.56	51.10	48.00	54.29	51.42	47.79	43.41	50.06	48.00	40.66	45.52	40.73	36.58	32.87	38.87	38.72	35.05	32.86	34.24	35.23
Normalized	64.0	69.0	64.3	68.4	60.5	63.9	68.7	75.7	65.6	68.4	80.8	72.1	80.6	89.8	99.9	84.5	84.8	93.7	100	95.9	93.2
Standard Deviation	4% 0.7%	9% 0.1%	1% 0.2%	6% 0.6%	3% 0.1%	1% 0.1%	6% 0.3%	% 0.5%	4% 0.3%	6% 0.1%	2% 0.1%	9% 0.1%	8% 0.2%	3% 0.1%	7% 0.2%	4% 0.2%	7% 0.1%	5% 0.1%	% 0.1%	7% 0%	7% 1.1%
eSpeak Speech Engine - T.T.S.S (sec)	36.07	33.53	35.89	33.97	38.25	36.17	33.33	31.05	35.05	32.77	28.57	31.88	28.31	25.34	23.22	27.12	26.72	24.64	23.26	24.15	24.18
Normalized	64.3	69.2	64.7	68.3	60.7	64.2	69.6	74.7	66.2	70.8	81.2	72.8	82.0	91.6	100	85.6	86.9	94.2	99.8	96.1	96.0
Standard Deviation	7% 0.7%	5% 1.4%	% 0.8%	5% 1.8%	1% 0.7%	% 1%	7% 0.9%	8% 0.8%	5% 1%	6% 0.6%	7% 0.4%	4% 0.4%	2% 0.1%	3% 1.9%	% 0.8%	2% 0.3%	% 0.1%	4% 0.5%	3% 0.5%	5% 0.2%	3% 0.6%
LZMA Compression - 2.F.C (sec)	297.51	275.96	297.02	278.67	321.95	303.55	286.89	260.02	281.11	263.58	226.96	257.58	226.56	220.82	202.75	235.72	234.76	208.62	197.53	202.29	203.88
Normalized	66.3	71.5	66.5	70.8	61.3	65.0	68.8	75.9	70.2	74.9	87.0	76.6	87.1	89.4	97.4	83.8	84.1	94.6	100	97.6	96.8
Standard Deviation	9% 0.3%	8% 0.1%	% 0.3%	8% 0.2%	5% 0.3%	7% 0.3%	5% 0.5%	7% 0.7%	7% 0.3%	4% 0.2%	3% 0.3%	9% 0.3%	9% 0.4%	5% 0.2%	3% 0.4%	% 0.7%	4% 0.4%	8% 0.3%	% 0.4%	5% 0.1%	9% 0.2%

Phoronix Test Suite

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Fhourstones - C.C.4.S (Kpos / sec)	112 81	121 46	113 01	119 21	**101 77**	113 70	119 44	122 59	119 75	127 89	146 73	126 18	146 93	152 00	163 69	137 71	137 30	158 86	**165 17**	162 60	161 85
Normalized	68.3%	73.5%	68.4%	72.1%	61.6%	68.8%	72.3%	74.2%	72.5%	77.4%	88.8%	76.3%	88.9%	92.0%	99.1%	83.3%	83.1%	96.1%	100%	98.4%	97.9%
Standard Deviation	0.4%	0.2%	0.1%	0.2%	0.2%	0%	0.2%	0.2%	0.5%	0.3%	0.1%	0.1%	0.4%	0.1%	0.1%	0%	0.2%	0.4%	0.3%	1%	0.1%
Timed MAFFT Alignment - M.S.A	3.85	3.42	3.28	3.33		**4.80**	4.42	3.05	**3.00**					3.30	3.29			3.21			
Normalized	77.9%	87.7%	91.4%	90.0%		62.5%	67.8%	98.3%	100%					90.9%	91.1%			93.4%			
Standard Deviation	2.5%	0.8%	0.7%	2%		3.9%	7.8%	0.4%						2.8%	4.3%			3.3%			
Radiance Benchmark - SMP	282.78	261.00	287.84	292.12	**297.27**	286.63	265.55	248.04	272.04	223.46	186.94	209.37	**186.08**	215.37	222.67	231.52	221.90	218.95	219.58	219.24	211.85
Normalized	65.8%	71.3%	64.6%	63.7%	62.6%	64.9%	70.0%	75.0%	68.4%	83.2%	99.5%	88.8%	100%	86.4%	83.5%	80.3%	83.8%	84.9%	84.7%	84.8%	87.8%
Radiance Benchmark -	911.80	842.24	910.63	857.65	**950.64**	901.70	837.30	759.22	873.04	710.10	603.33	673.80	**602.71**	690.49	624.46	705.97	703.60	666.34	625.49	656.47	669.87
Normalized	66.1%	71.5%	66.1%	70.2%	63.4%	66.8%	71.9%	79.3%	69.0%	84.8%	99.9%	89.4%	100%	87.2%	96.5%	85.3%	85.6%	90.4%	96.3%	91.8%	89.9%
Gzip Compression - L.S.T.A.T.t.g (sec)	44.91	41.38	**45.19**	42.58	43.80	40.81	37.59	34.92	39.84	41.47	35.65	39.26	34.71	31.91	28.80	34.55	33.64	31.09	**28.70**	30.09	29.77
Normalized	63.9%	69.3%	63.5%	67.4%	65.5%	70.3%	76.3%	82.1%	72.0%	69.2%	80.5%	73.1%	82.6%	89.9%	99.6%	83.0%	85.3%	92.3%	100%	95.3%	96.4%
Standard Deviation	0.4%	0.6%	1.8%	0.1%	2%	0.3%	0.3%	1%	1.3%	2.2%	0.3%	1.8%	0.2%	3.9%	1.8%	0.3%	0%	2.3%	3.8%	2.1%	0.7%
Swet - Average (Operations/sec)	636498865	696133925	**567668830**	668472586	590529249	629806985	688851433	725757933	657827361	696414155	825492496	718506678	803251555	805495781	**892951586**	717096498	750221600	825273143	883202896	843862574	828721312
Normalized	71.2%	77.9%	63.5%	74.8%	66.1%	70.5%	77.1%	81.2%	73.6%	77.9%	92.4%	80.4%	89.9%	90.2%	100%	80.3%	84.0%	92.4%	98.9%	94.5%	92.8%
Standard Deviation	2.3%	0.5%	13.5%	1.1%	2.3%	1.2%	0.4%	1.6%	0.1%	1.1%	0.6%	1.1%	2%	2%	1.1%	4%	1.7%	1.3%	0.6%	2.4%	1.9%

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PolyBench-C - C.C (sec)	3.99	3.67	3.96	3.68	**5.11**	3.86	3.57	**3.28**	3.67					5.02	4.55	4.97	4.92	4.85	4.50	4.71	4.81
Normalized	82.2	89.3	82.8	89.1	64.1	84.9	91.8	100	89.3					65.3	72.0	66%	66.6	67.6	72.8	69.6	68.1
Standard Deviation	1% 0.4%	7% 0.6%	3% 0.5%	3% 0.2%	9% 1.3%	7% 1.2%	8% 0.8%	% 0.8%	7% 0.3%					4% 0.1%	9% 0.1%	0.1%	7% 0.2%	3% 0.3%	9% 0.1%	4% 0.4%	9% 0.6%
Graphics Magick - Swirl (Iterations/min)	180	200	192	201	201	**163**	177	219	204	203	240	218	**250**	189	210	208	224	218	239	243	243
Normalized	72%	80%	76.8 %	80.4 %	80.4 %	65.2 %	70.8 %	87.6 %	81.6 %	81.2 %	96%	87.2 %	100 %	75.6 %	84%	83.2 %	89.6 %	87.2 %	95.6 %	97.2 %	97.2 %
Standard Deviation	0.3%	0.3%	1.4%	0%	0%	0%	0.3%	0.3%	0%	0%	0.2%	0.5%	0.2%	0.3%	0.3%	0%	0%	0%	0%	0.2%	0.2%
AOBench - 2048 x 2048 - Total Time (sec)	46.10	42.52	46.67	43.34	**48.79**	46.23	42.83	39.36	44.85	42.32	35.83	40.14	35.82	35.41	31.95	37.49	37.34	33.99	**31.87**	33.24	33.95
Normalized	69.1 3%	74.9 5%	68.2 9%	73.5 3%	65.3 2%	68.9 4%	74.4 1%	80.9 7%	71.0 6%	75.3 1%	88.9 5%	79.4 %	88.9 7%	90%	99.7 5%	85.0 1%	85.3 5%	93.7 6%	100 %	95.8 8%	93.8 7%
Standard Deviation	0%	0%	2.1%	0.3%	0%	0.3%	0.4%	0.4%	0.1%	0%	0%	0.1%	0%	0%	0.4%	0.1%	0.1%	0.1%	0%	0%	0.1%
Mencoder - AVI To LAVC (sec)	19.93	18.38	20.11	18.76	**21.03**	20.25	18.89	16.90	19.41	18.88	16.05	18.04	15.96	15.32	13.84	16.25	16.13	14.91	**13.80**	14.42	14.71
Normalized	69.2 4%	75.0 8%	68.6 2%	73.5 6%	65.6 2%	68.1 5%	73.0 5%	81.6 6%	71.1 %	73.0 9%	85.9 8%	76.5 %	86.4 7%	90.0 8%	99.7 1%	84.9 2%	85.5 5%	92.5 6%	100 %	95.7 %	93.8 1%
Standard Deviation	0.2%	0.3%	1.7%	0.7%	0.2%	0.5%	0.7%	0.6%	0.5%	0.2%	0.3%	0.3%	0.2%	0.3%	0.4%	0.3%	0.2%	0.3%	0.4%	0.5%	0.4%
GNU GMP GMPbench - Total Time (GMPbench)	442 6	480 4	444 2	476 1	**419 8**	443 2	476 9	525 7	456 6	487 7	576 6	515 4	576 7	575 6	639 3	549 5	551 5	601 0	**639 6**	612 1	601 1
Normalized	69.2 %	75.1 %	69.4 4%	74.4 3%	65.6 4%	69.2 9%	74.5 7%	82.1 9%	71.3 8%	76.2 4%	90.1 4%	80.5 7%	90.1 7%	89.9 9%	99.9 5%	85.9 1%	86.2 3%	93.9 7%	100 %	95.7 %	93.9 7%
Botan - Twofish (MiB/s)	309.66	335.53	310.30	335.93	**293.03**	309.93	333.75	365.89	319.08	316.39	374.48	333.68	374.09	395.38	**439.19**	375.27	376.74	407.85	438.93	420.57	411.98
Normalized	70.5 1%	76.4 %	70.6 5%	76.4 9%	66.7 2%	70.5 7%	75.9 9%	83.3 1%	72.6 5%	72.0 4%	85.2 7%	75.9 8%	85.1 8%	90.0 2%	100 %	85.4 5%	85.7 8%	92.8 6%	99.9 4%	95.7 6%	93.8 %
Standard Deviation	0.4%	0.5%	0.1%	0.4%	0.1%	0%	0.4%	1.9%	0.2%	0%	0%	0.1%	0.1%	0%	0.1%	0.1%	0.1%	1.4%	0.1%	0.1%	0.1%

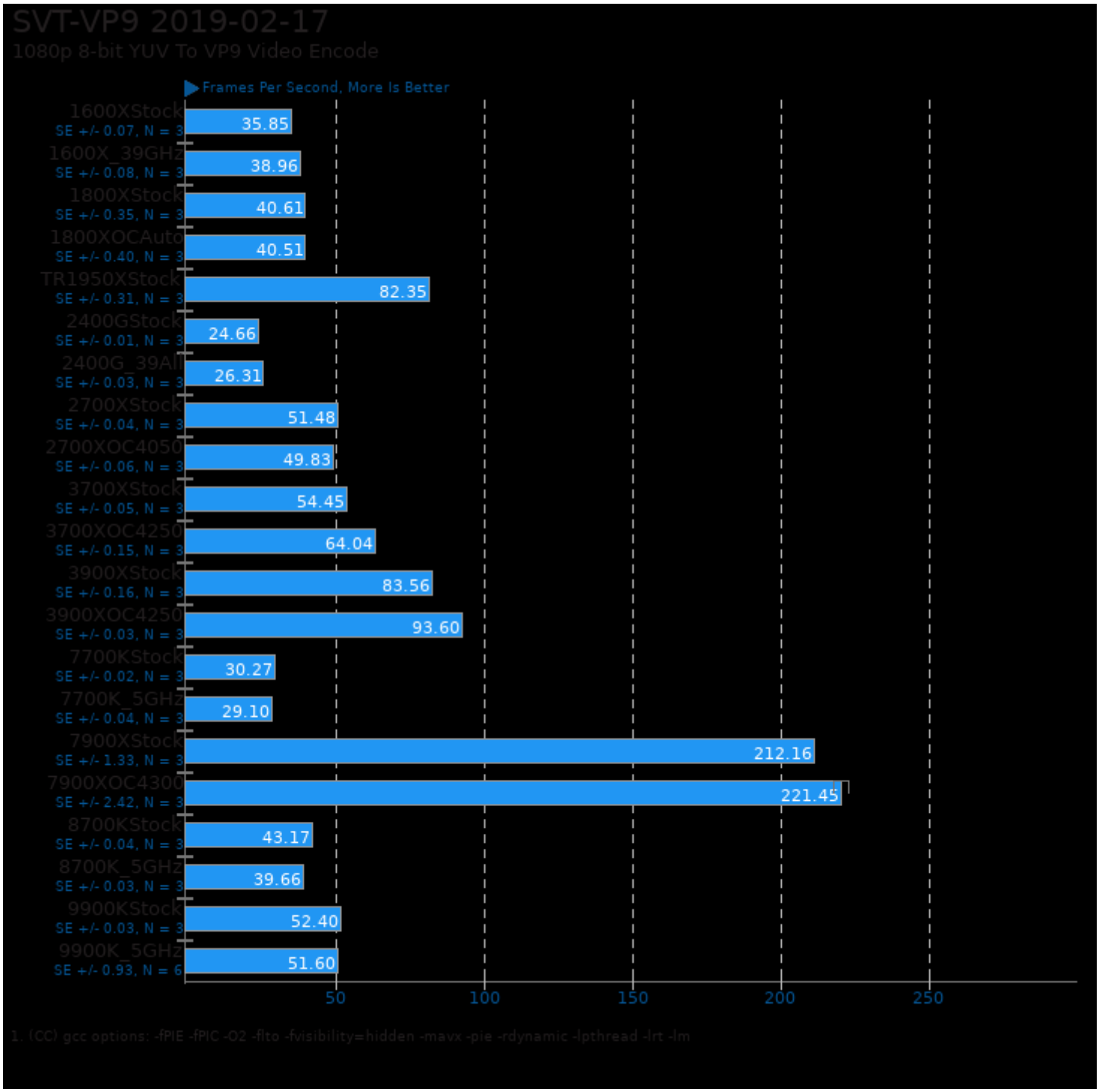
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Sample Pi Program - P.T.S.v.2.1 (sec)	15.47	14.22	15.51	14.58	**16.36**	15.44	14.36	13.28	14.98	13.07	**11.10**	12.46	**11.10**	13.44	12.05	14.19	13.97	12.83	12.04	12.56	12.85
Normalized	71.7	78.0	71.5	76.1	67.8	71.8	77.3	83.5	74.1	84.9	100	89.0	100	82.5	92.1	78.2	79.4	86.5	92.1	88.3	86.3
Standard Deviation	5% 0.2%	6% 0.1%	7% 0.6%	3% 0.5%	5% 0.3%	9% 0.1%	% 0.2%	8% 0.3%	% 0.2%	3% 0%	% 0%	9% 0.1%	% 0%	9% 1.2%	2% 0.8%	2% 0.4%	6% 0.5%	2% 0.4%	9% 0.7%	8% 0.6%	8% 0.8%
Bullet Physics Engine - Raytests (sec)	2.87	2.65	2.87	2.69	**3.00**	2.86	2.67	2.43	2.76	2.57	2.18	2.43	2.17	2.27	**2.05**	2.38	2.37	2.17	**2.05**	2.14	2.19
Normalized	71.4	77.3	71.4	76.2	68.3	71.6	76.7	84.3	74.2	79.7	94.0	84.3	94.4	90.3	100	86.1	86.5	94.4	100	95.7	93.6
Standard Deviation	3% 0.2%	6% 0.2%	3% 0%	1% 0.5%	3% 0%	8% 0.1%	8% 1.2%	6% 0.7%	8% 0.1%	7% 0%	4% 0%	6% 0%	7% 0.1%	1% 0.3%	% 0.1%	3% 0.2%	% 0.1%	7% 0.3%	% 0.5%	9% 0.2%	1% 0.2%
Timed GCC Compilation - Time To Compile (sec)			1005	**1217**				1030	1004						1144				967.38	**834.24**	849.88
Normalized			83.0	68.5				81.0	83.0						72.9				86.2	100	98.1
Minion - Solitaire (sec)	78.68	72.83	78.91	74.54	**79.67**	77.07	70.83	64.70	73.22	70.74	59.89	68.60	60.76	60.25	**54.73**	63.10	63.76	58.79	56.33	57.65	58.40
Normalized	69.5	75.1	69.3	73.4	68.7	71.0	77.2	84.5	74.7	77.3	91.3	79.7	90.0	90.8	100	86.7	85.8	93.0	97.1	94.9	93.7
Standard Deviation	6% 0.1%	5% 0.6%	6% 1%	2% 0.7%	% 0.3%	1% 1.3%	7% 0.9%	9% 1.5%	5% 0.2%	7% 0.1%	8% 0.2%	8% 2%	8% 0.1%	4% 0.1%	% 1%	4% 0.6%	4% 1.3%	9% 1%	6% 0.3%	3% 0.2%	2% 0.5%
NAS Parallel Benchmarks - SP.A (Mop/s)	2788	2931	2514	**2469**	2621	2747	2819	2692	2910	3189	3552	3121	**3583**	3314	3282	2486	2609	3192	3581	2993	2926
Normalized	77.8	81.8	70.1	68.9	73.1	76.6	78.6	75.1	81.2	89.0	99.1	87.1	100	92.5	91.6	69.4	72.8	89.0	99.9	83.5	81.6
Standard Deviation	3% 0.3%	% 0.5%	6% 1.4%	2% 2.1%	5% 3.3%	7% 0.6%	9% 1.3%	4% 0.3%	2% 0.1%	2% 0%	5% 0.5%	1% 0.8%	% 0.5%	% 0.2%	1% 0.6%	% 0.1%	1% 1.4%	9% 0.5%	6% 0.6%	4% 0.6%	7% 0.3%

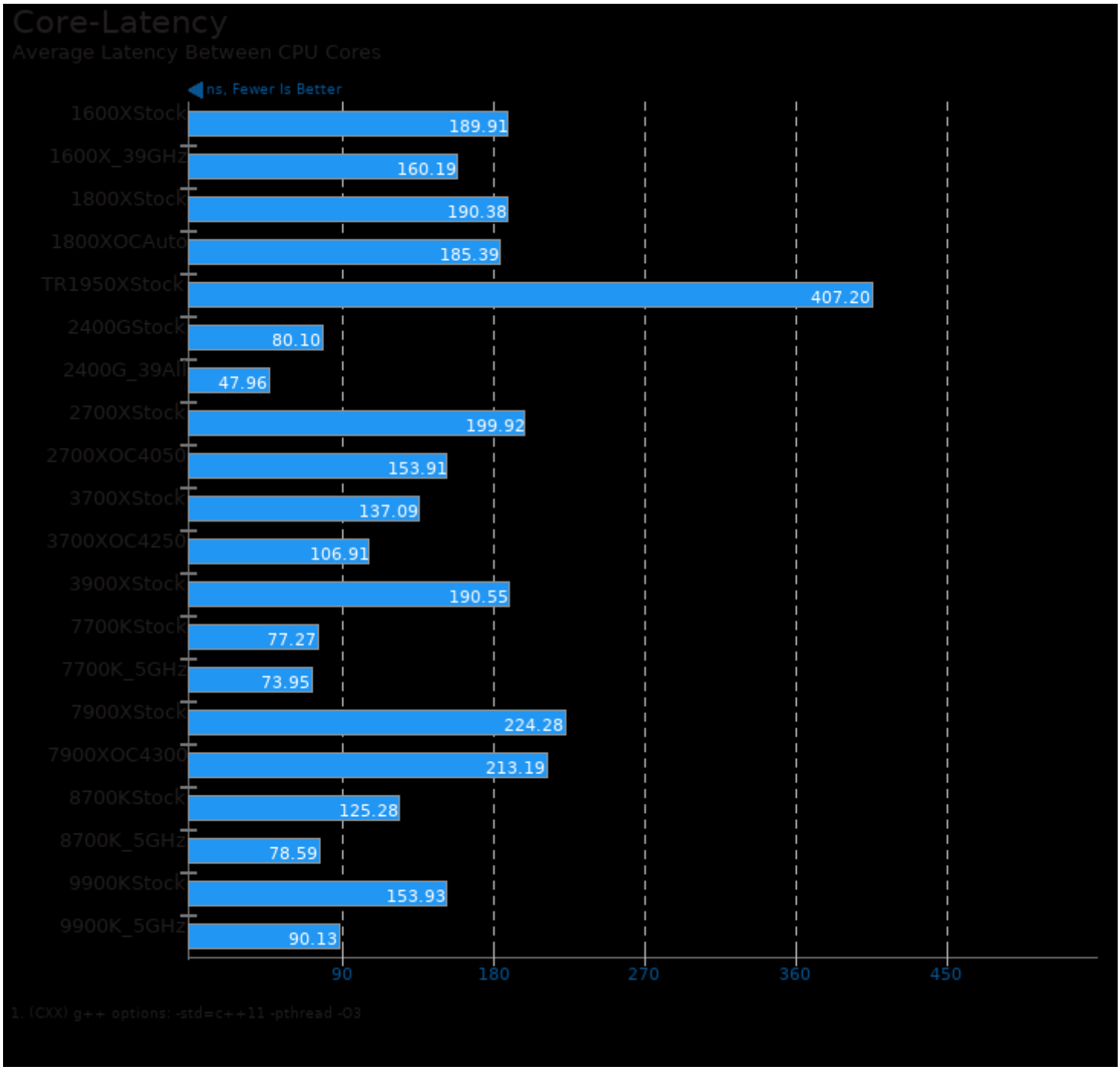
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FFTE - N.2.1.C.F.R (MFLOPS)	7481	8098	7471	7971	**7120**	7542	8124	8711	7758	8077	9545	8533	9546	9097	**10110**	8646	8674	9469	10108	9678	9480
Normalized	74%	80.1%	73.9%	78.8%	70.4%	74.6%	80.3%	86.1%	76.7%	79.8%	94.4%	84.4%	94.4%	89.9%	100%	85.5%	85.7%	93.6%	99.9%	95.7%	93.7%
Standard Deviation	0.1%	0.2%	0.1%	0.6%	0.2%	0.3%	0.6%	0.5%	0.1%	0%	0%	0%	0%	0.1%	0%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%
FFTW - Stock - 2D FFT Size 4096 (Mflops)	5357	5582	5305	5525	**5214**	5245	5604	5995	5518	5829	6505	5737	6529	6619	**7199**	5408	5401	6891	7130	6917	6865
Normalized	74.4%	77.5%	73.6%	76.7%	72.4%	72.8%	77.8%	83.2%	76.6%	80.9%	90.3%	79.7%	90.6%	91.9%	100%	75.1%	75.0%	95.7%	99.0%	96.0%	95.3%
Standard Deviation	1%	4%	9%	4%	3%	6%	5%	7%	5%	7%	6%	9%	5%	9%	2%	3%	2%	5%	9%	6%	
	0%	0.6%	0.9%	1.2%	0.5%	0.4%	1.3%	1.9%	0.4%	0.2%	0.7%	0.9%	0.3%	0.6%	0.4%	0.7%	0.5%	0.6%	1.1%	0.2%	0.6%
VP9 libvpx Encoding - v.V.1.V.E (FPS)	1.06	1.18	1.18	1.19	1.06	1.06	**1.01**	1.05	1.05	**1.01**	**1.32**	1.19	1.12	1.10	1.06	1.24	1.21	1.24	1.20	1.20	1.17
Normalized	80.3%	89.3%	89.3%	90.1%	80.3%	80.3%	76.5%	79.5%	79.5%	76.5%	100%	90.1%	84.8%	83.3%	80.3%	93.9%	91.6%	93.9%	90.9%	90.9%	88.6%
Standard Deviation	0.9%	0.5%	1.8%	1.3%	0%	4.7%	0.6%	1.1%	1%	1%	0%	6.9%	3.4%	0%	3.3%	1.2%	4.4%	0.5%	1.3%	1%	0.9%
BYTE Unix Benchmark - F.P.A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Deviation	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Perl Benchmarks - Interpreter (sec)			**0.0120293**	0.012196				0.0100878	0.0080557	0.0095448	**0.0051587**	0.0096627	0.0058317	0.0076312	0.0085223			0.0080081	0.0070789	0.0079134	0.0070261
Normalized			45.4%	45.8%				51.3%	69.3%	58.5%	100%	57.8%	95.8%	63.7%	65.5%			67.2%	75.7%	70.6%	71.3%
Standard Deviation			0.4%	0.2%				0.9%	0.1%	0.4%	0.1%	5.4%	0.1%	7.2%	10.5%			4.7%	7.8%	13.1%	8.8%

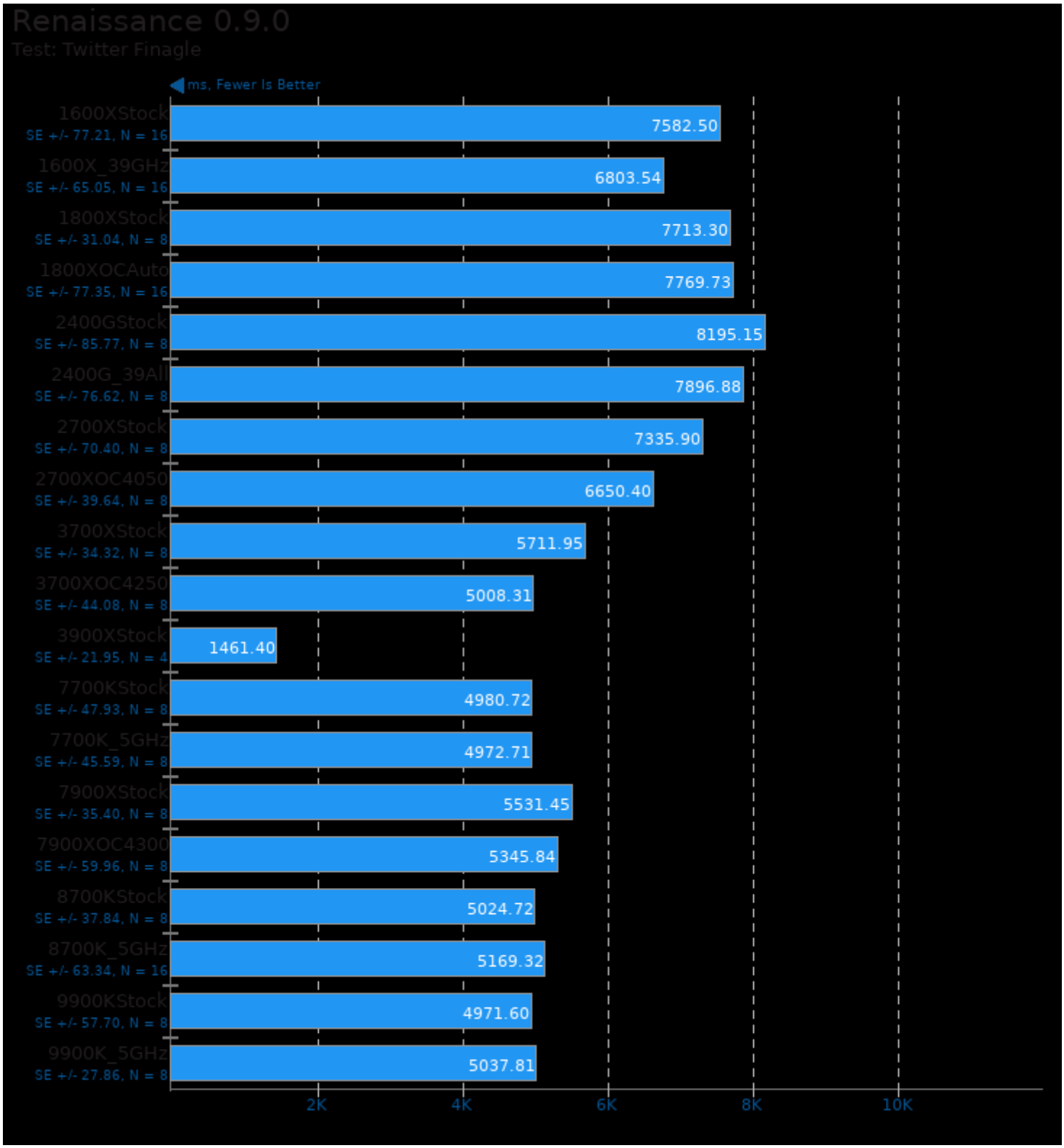
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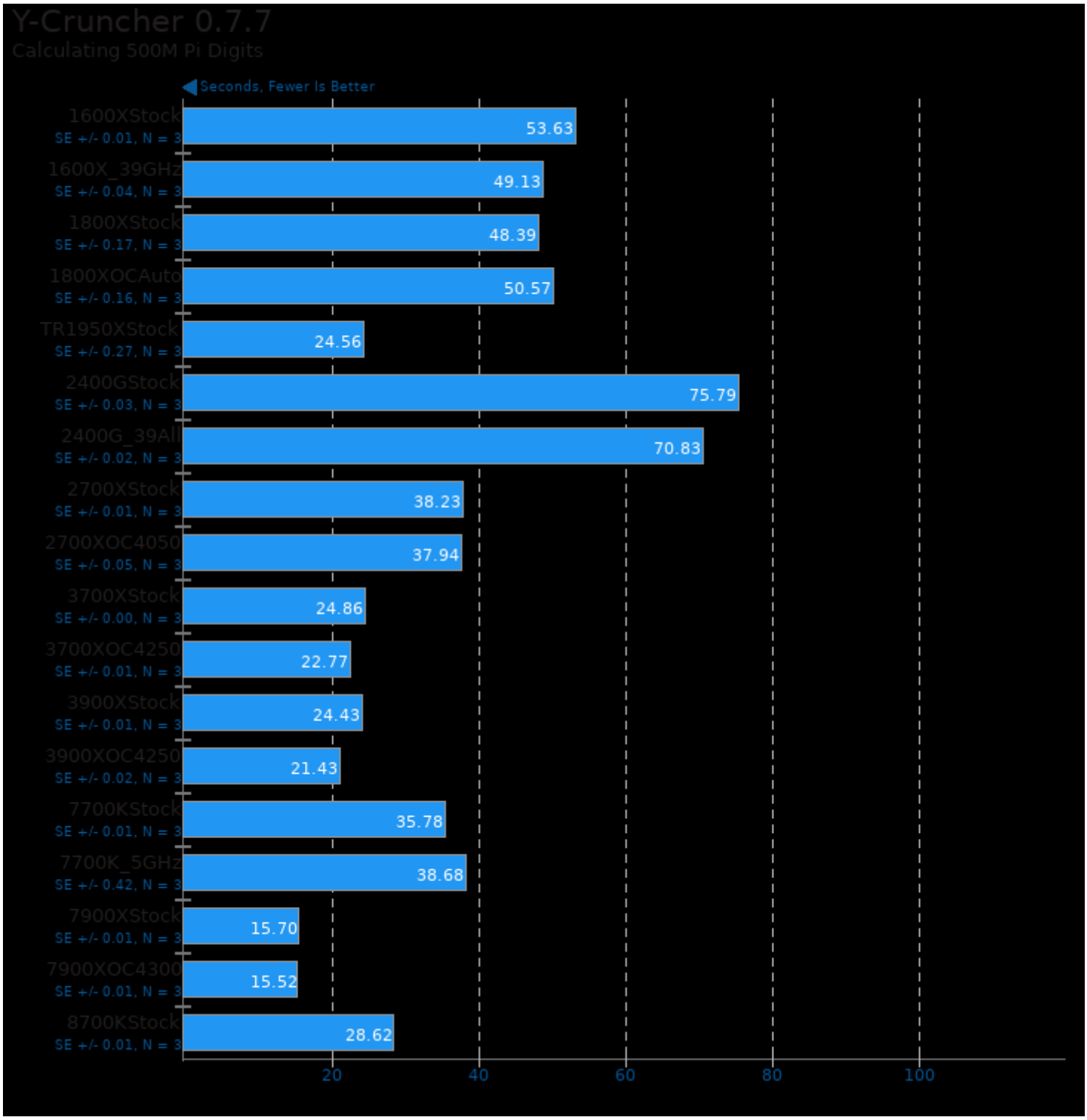
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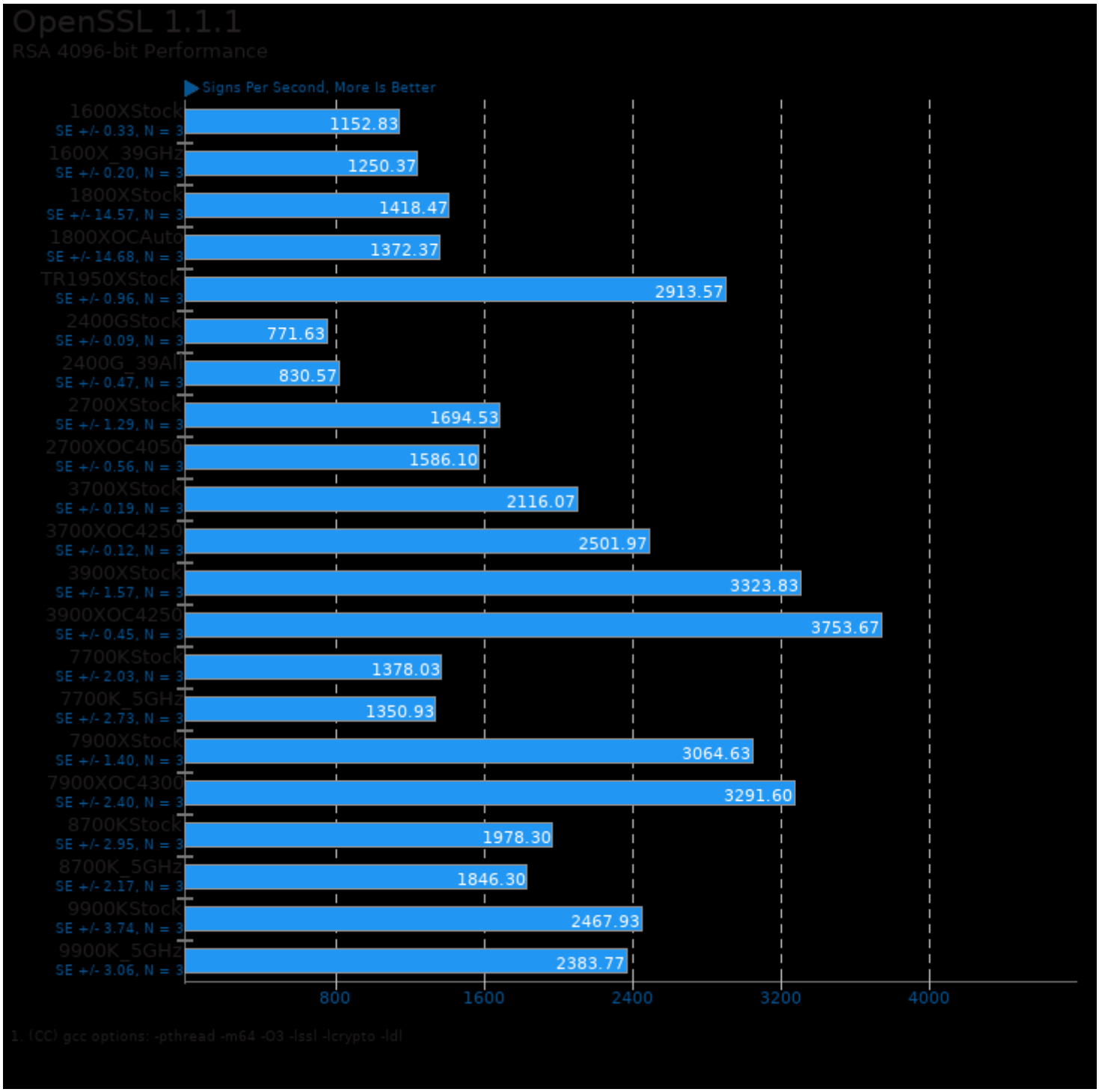
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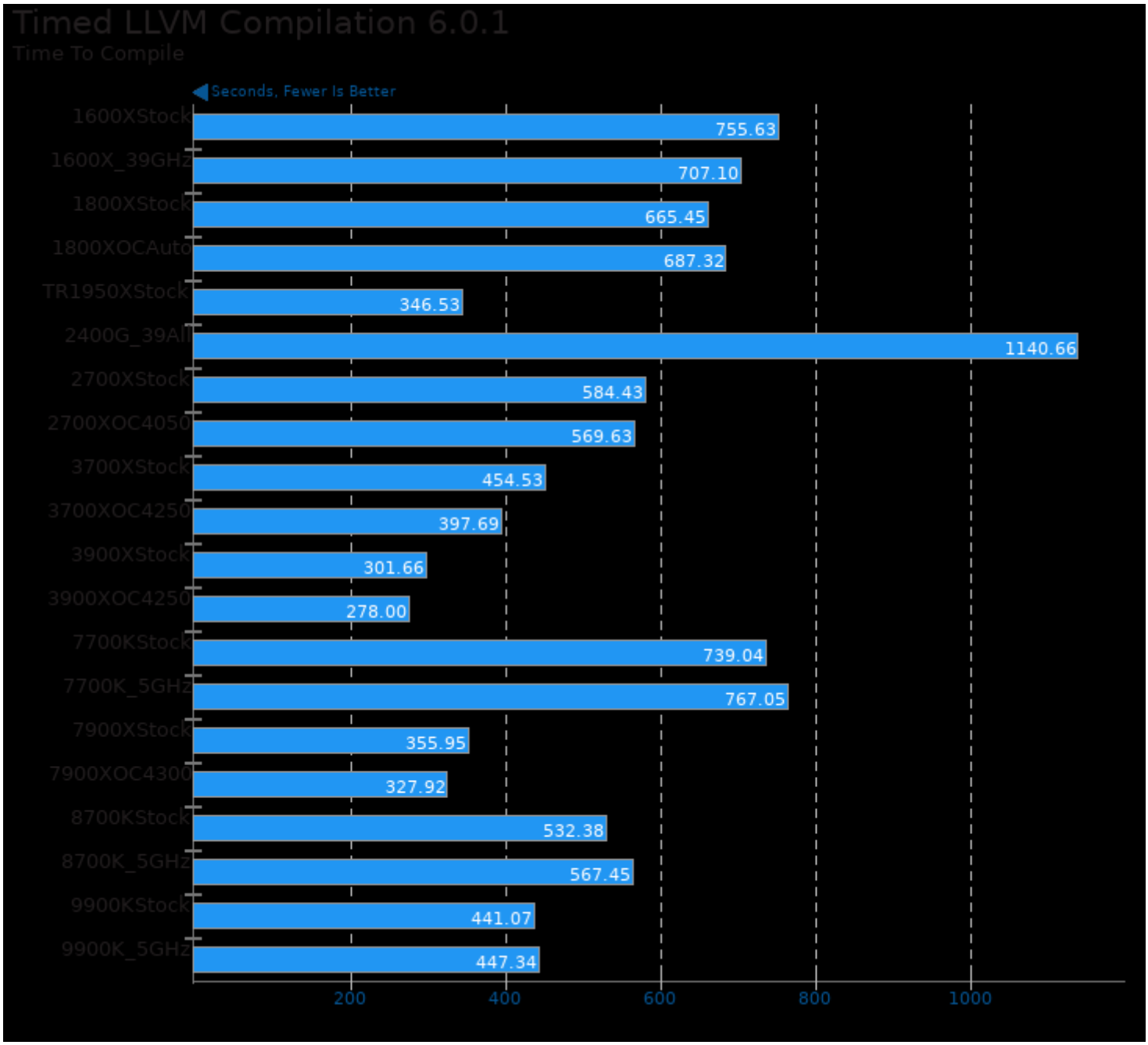
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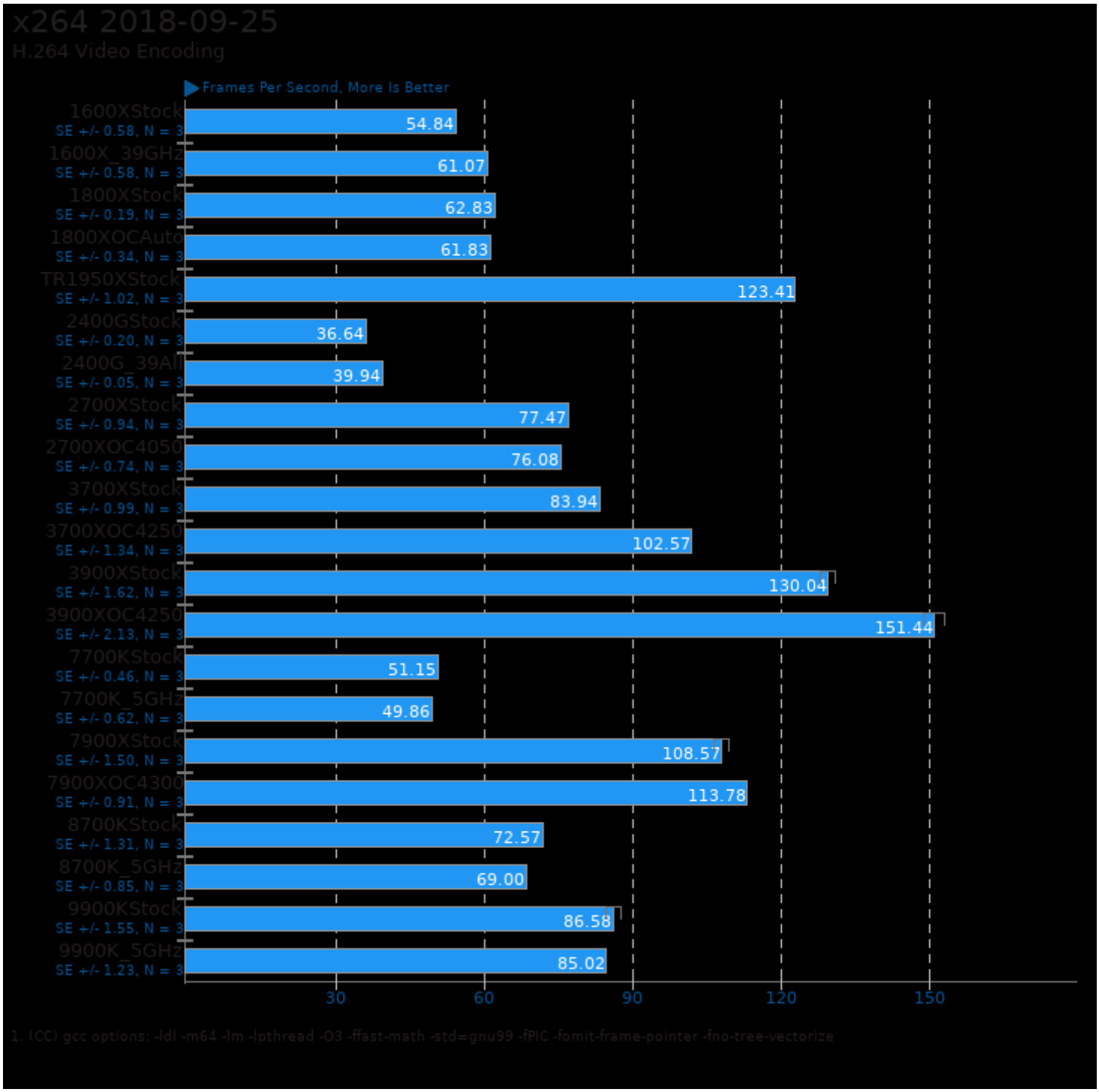
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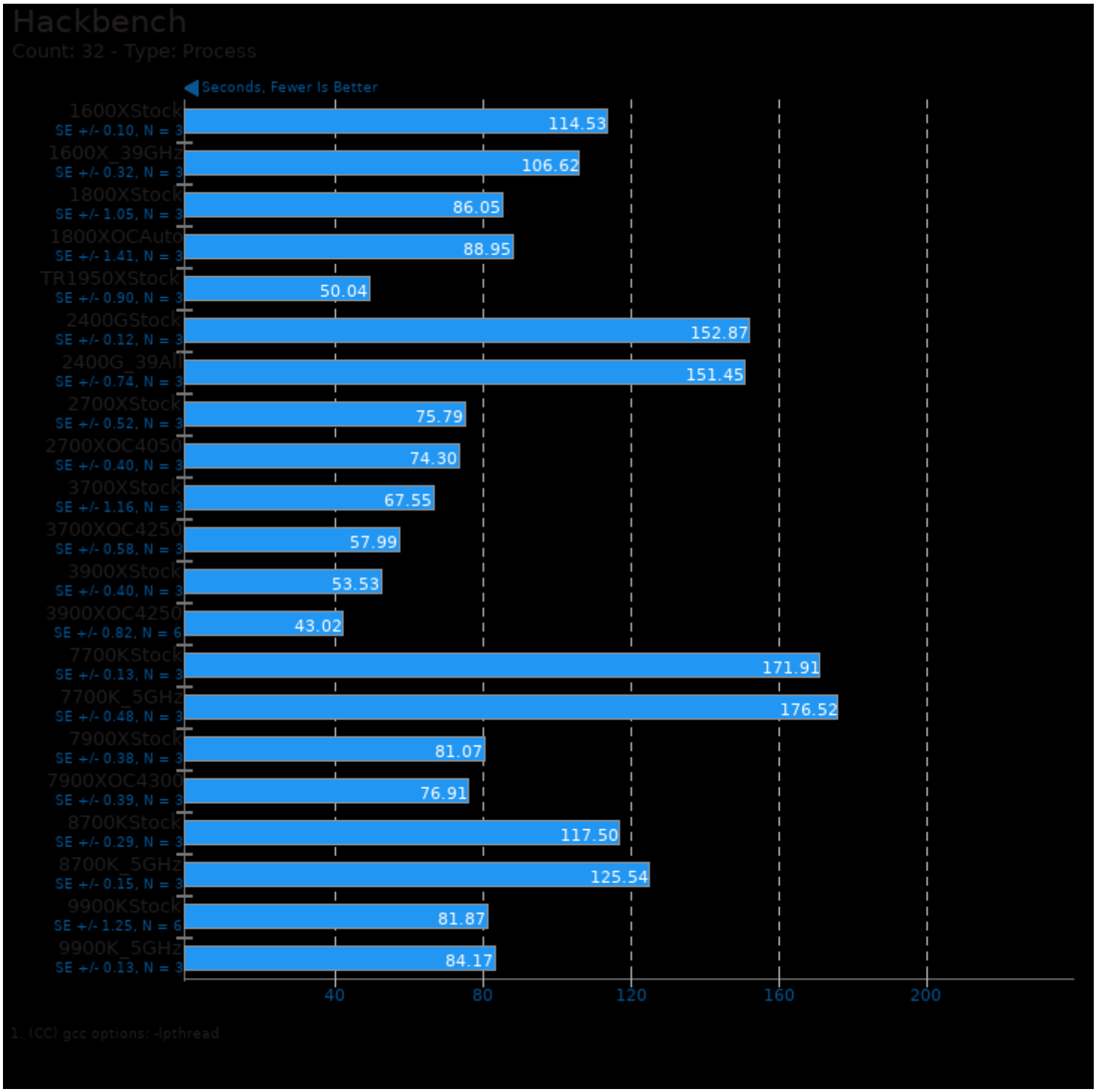
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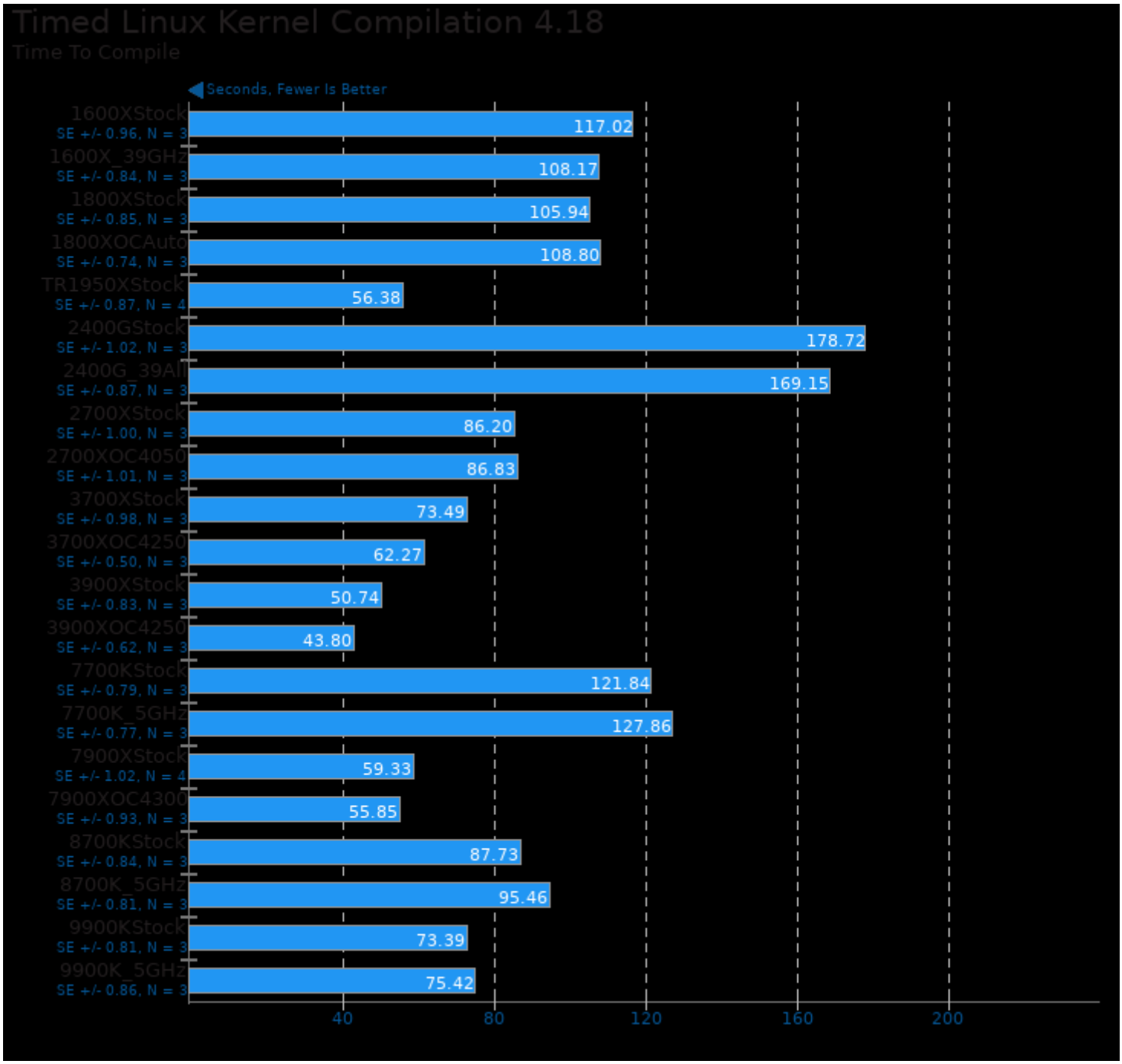
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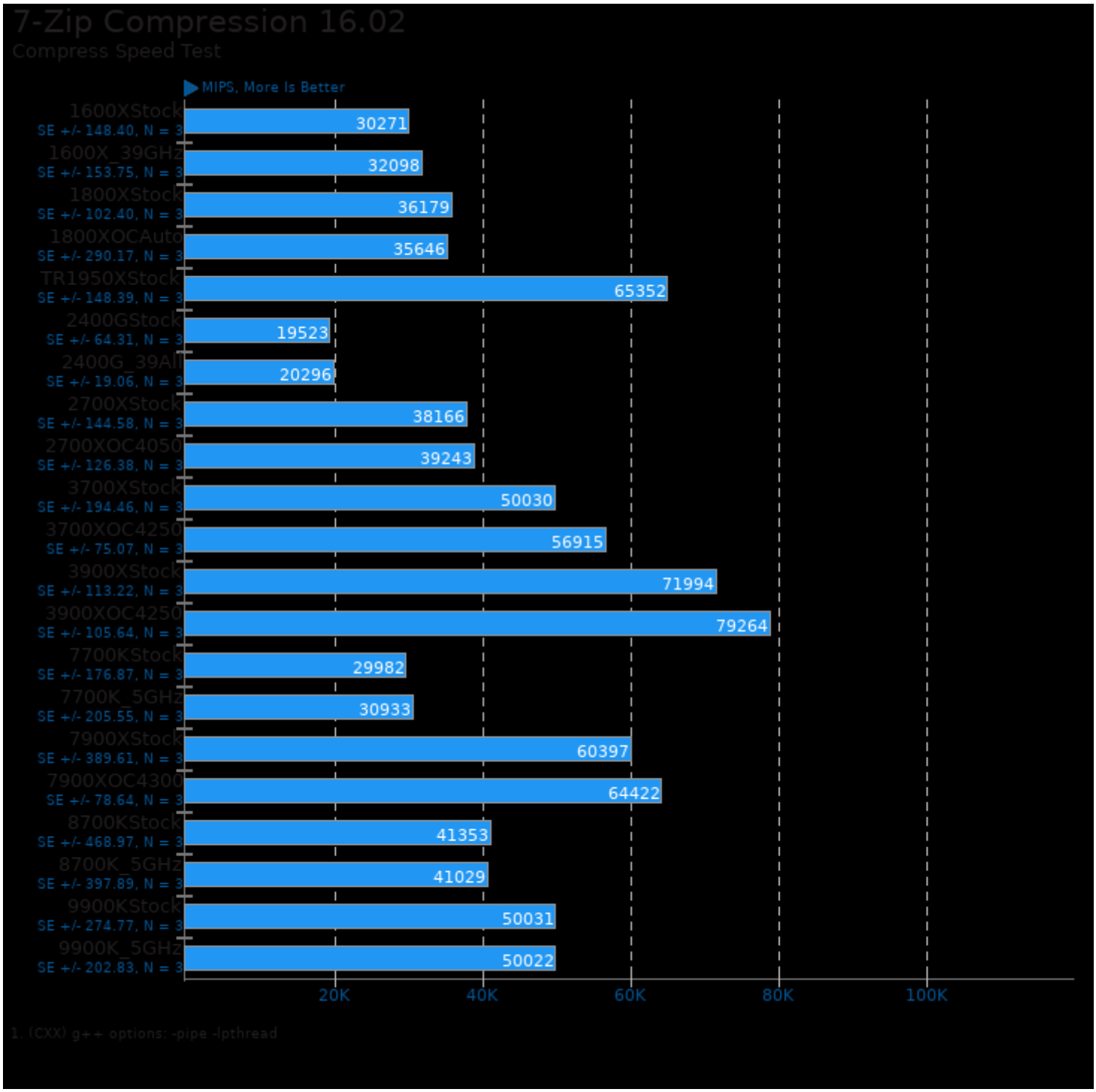
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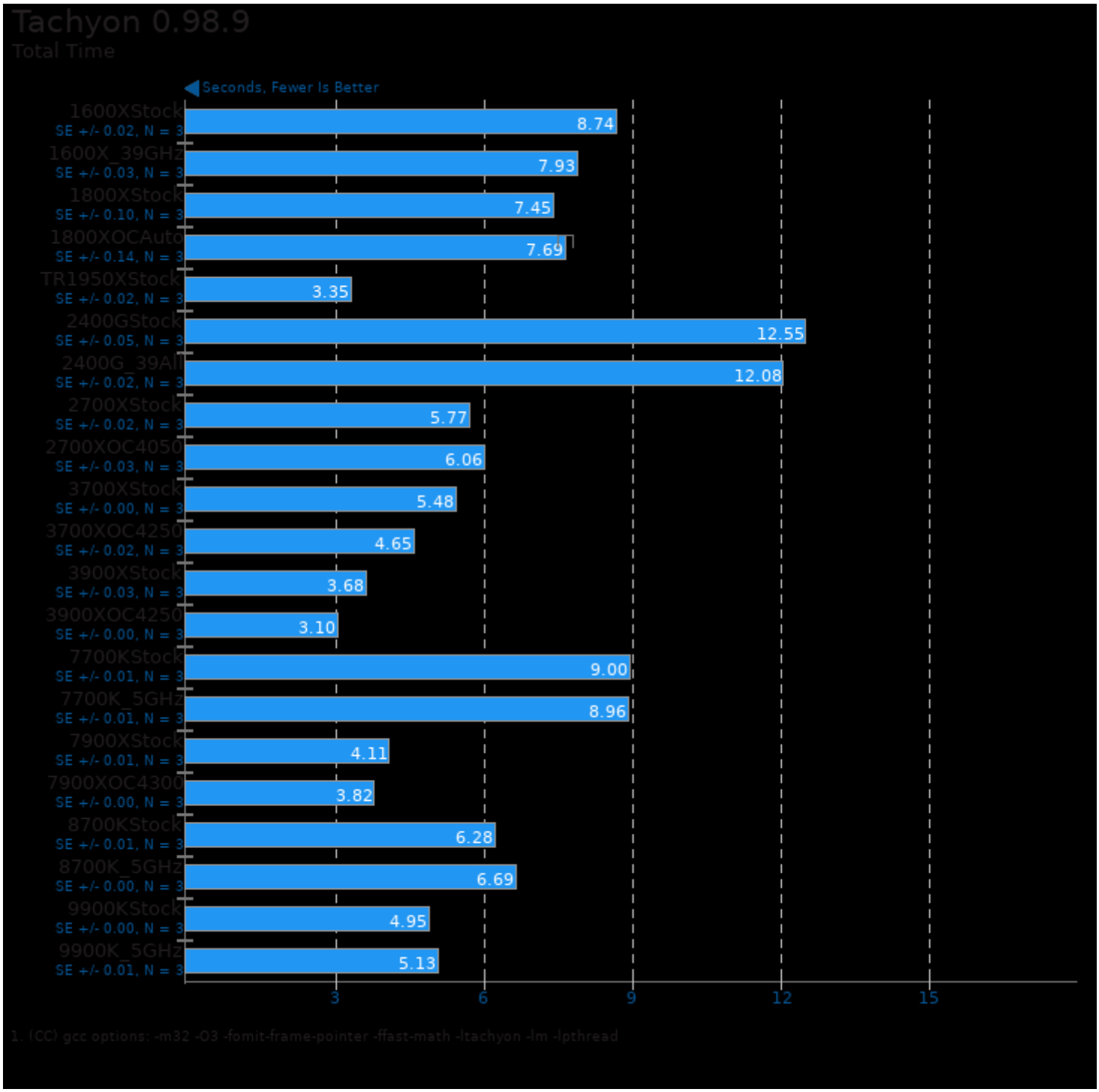
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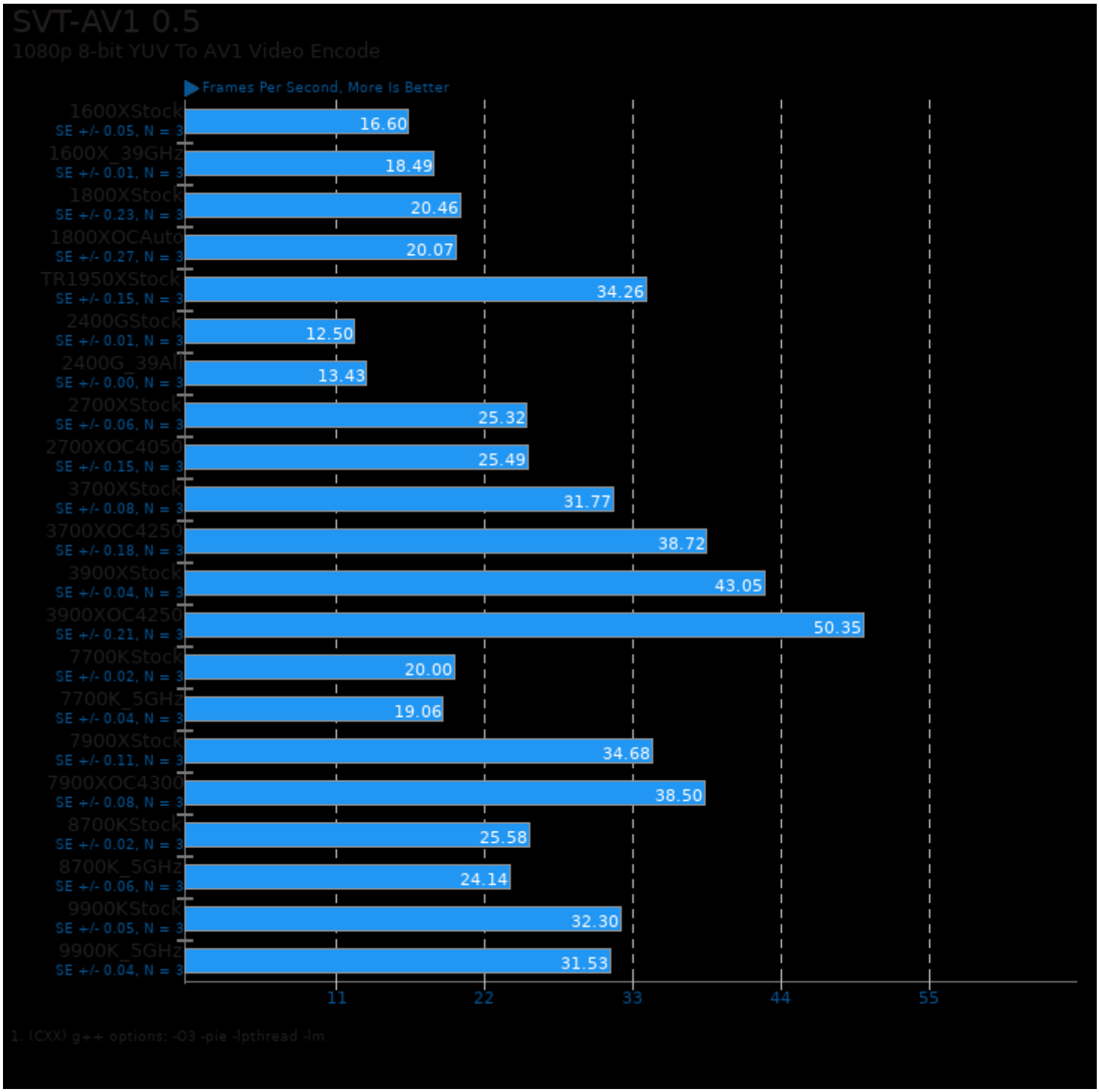
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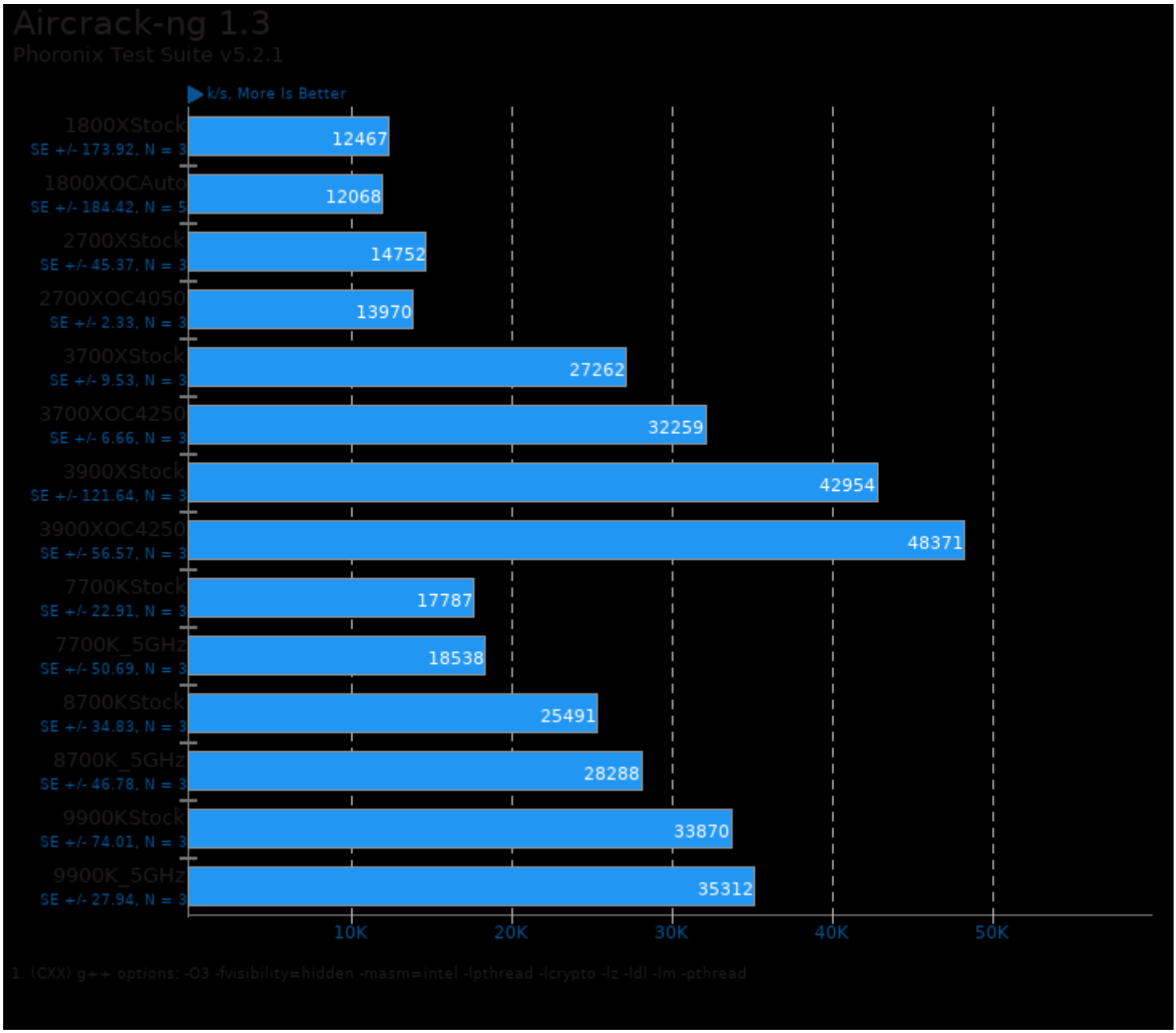


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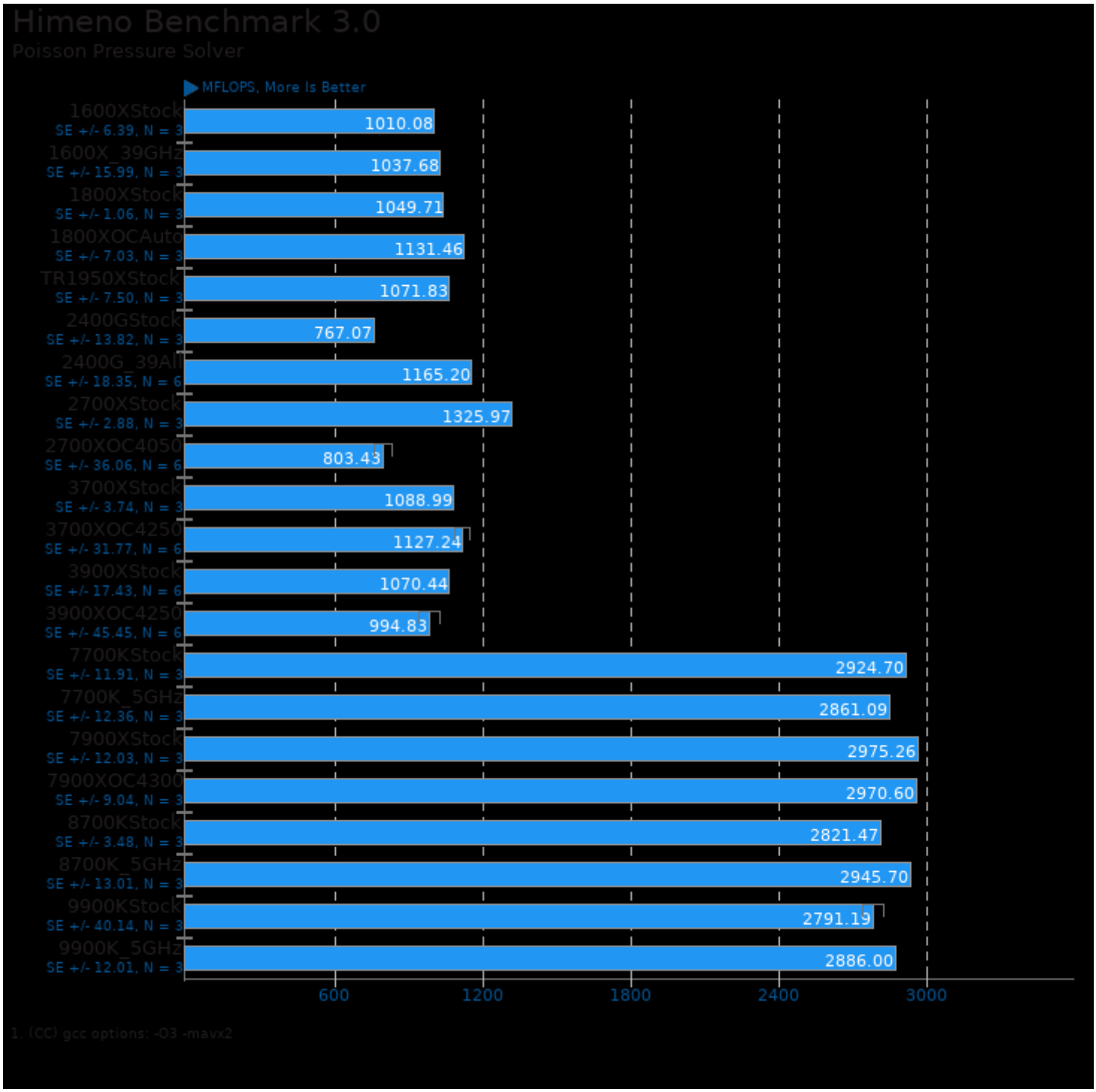


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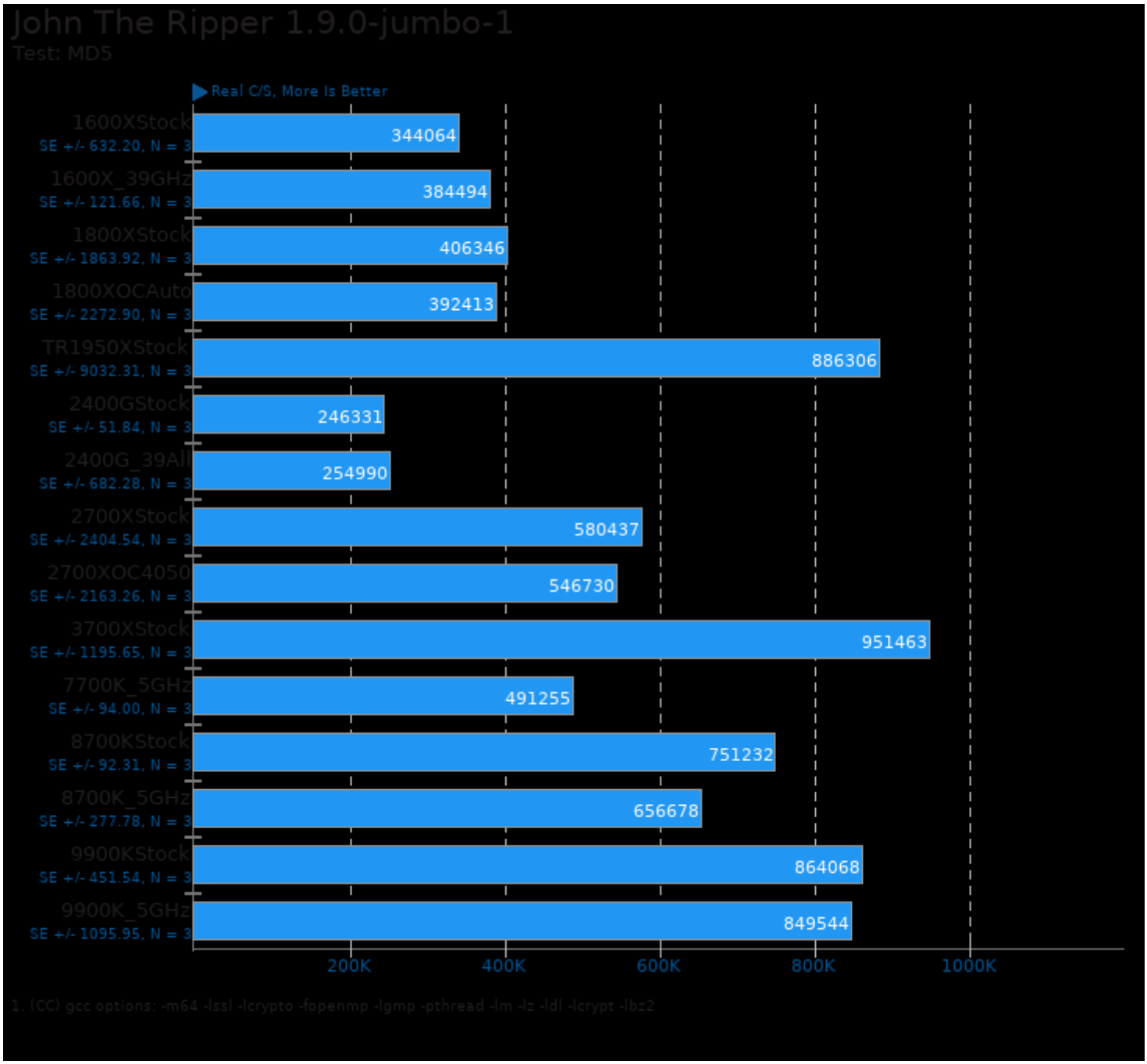



Aircrack-ng 1.3
Phoronix Test Suite v5.2.1
k/s, More Is Better
1800XStock
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12467
1800XOCAuto
SE +/- 184.42, N = 5
12068
2700XStock
SE +/- 45.37, N = 3
14752
2700XOC4050
SE +/- 2.33, N = 3
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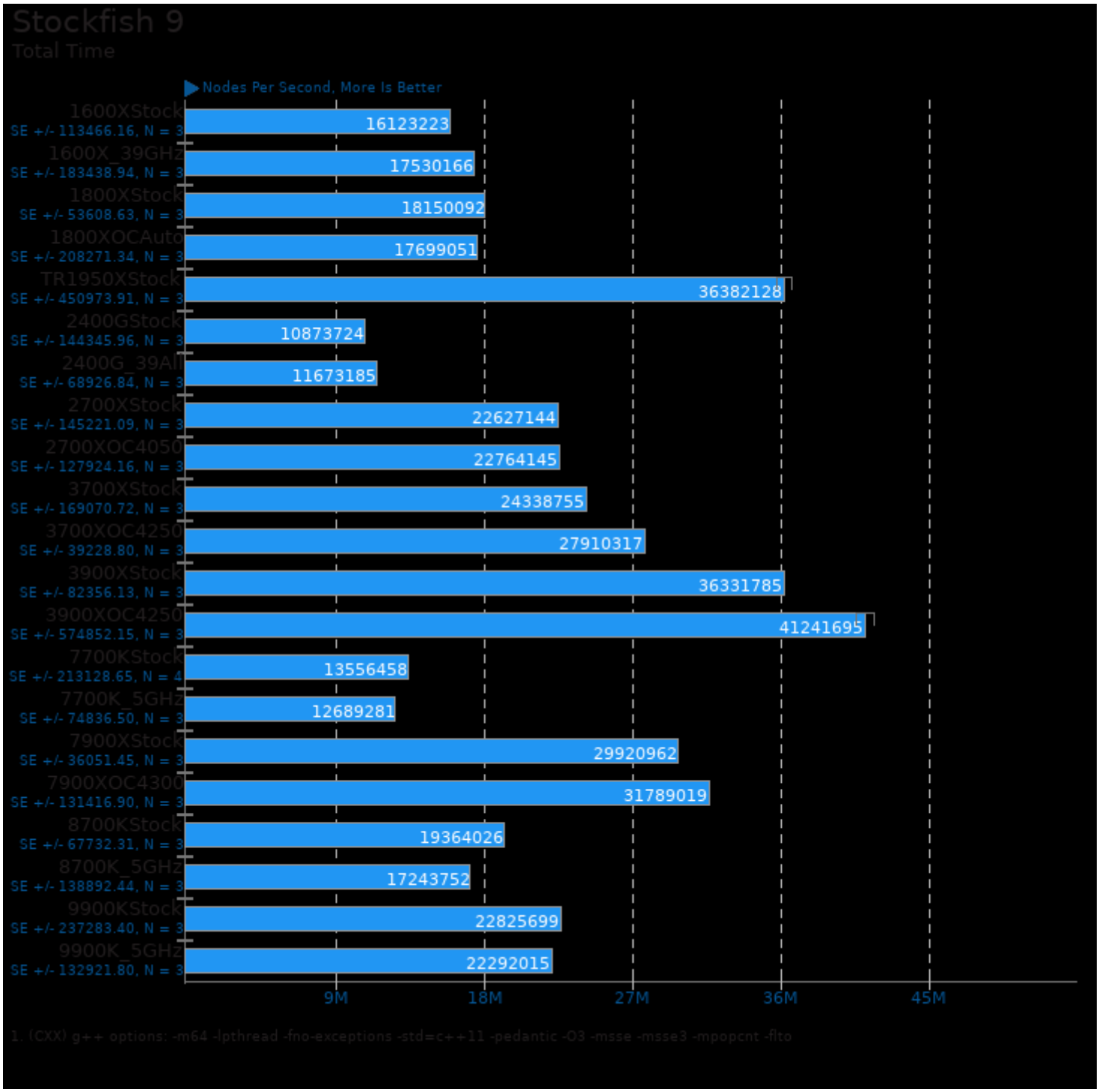
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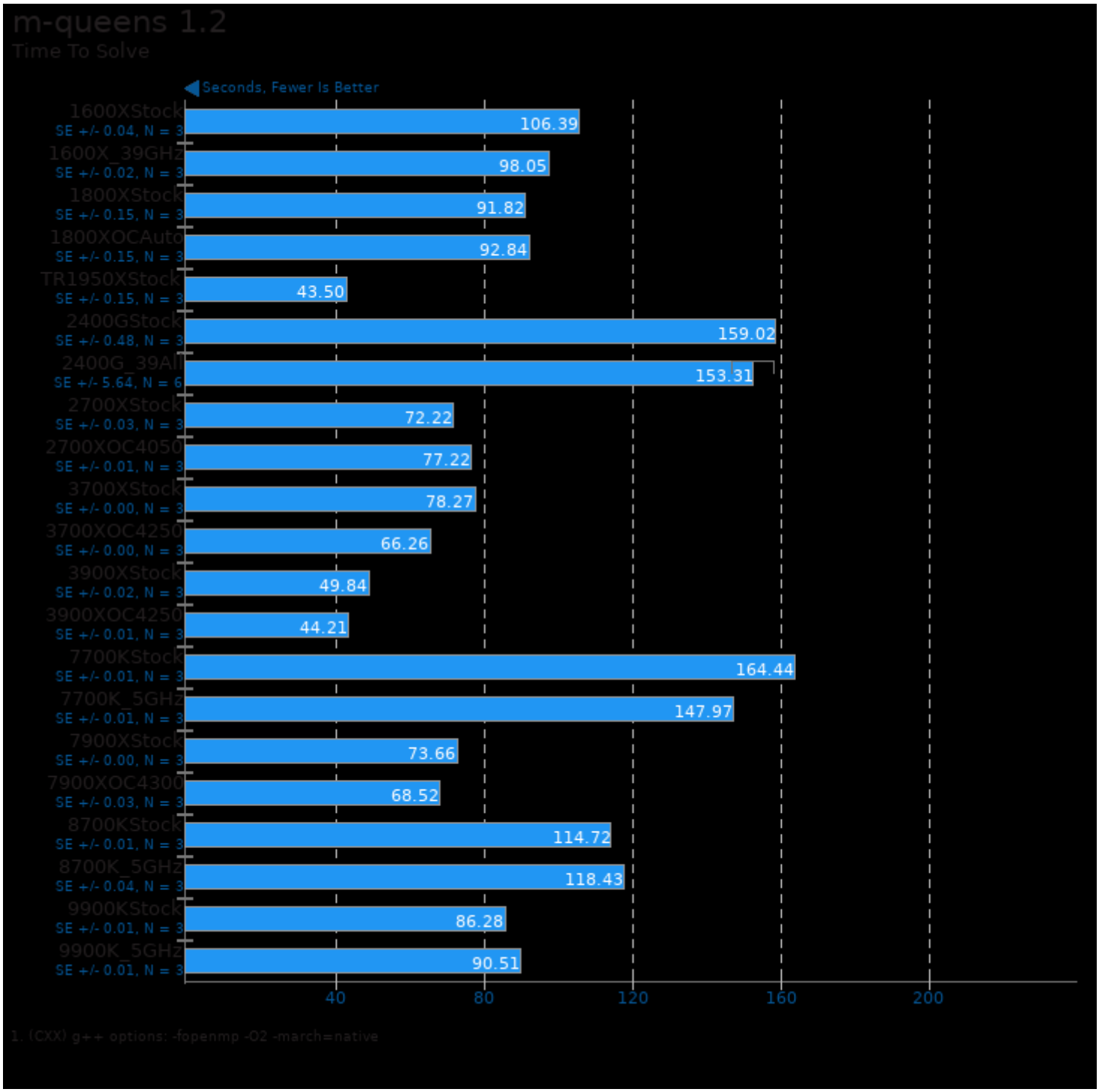
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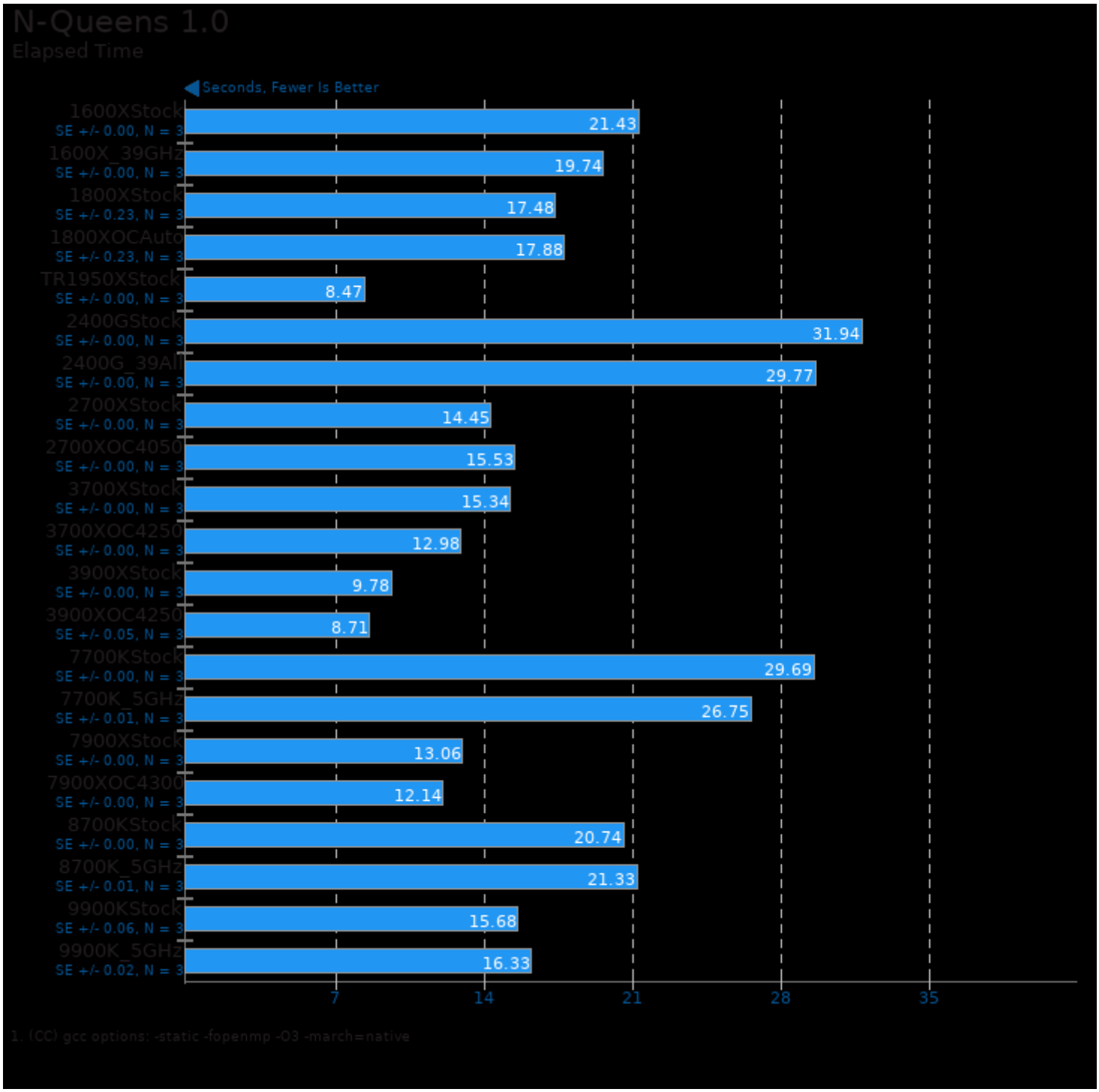
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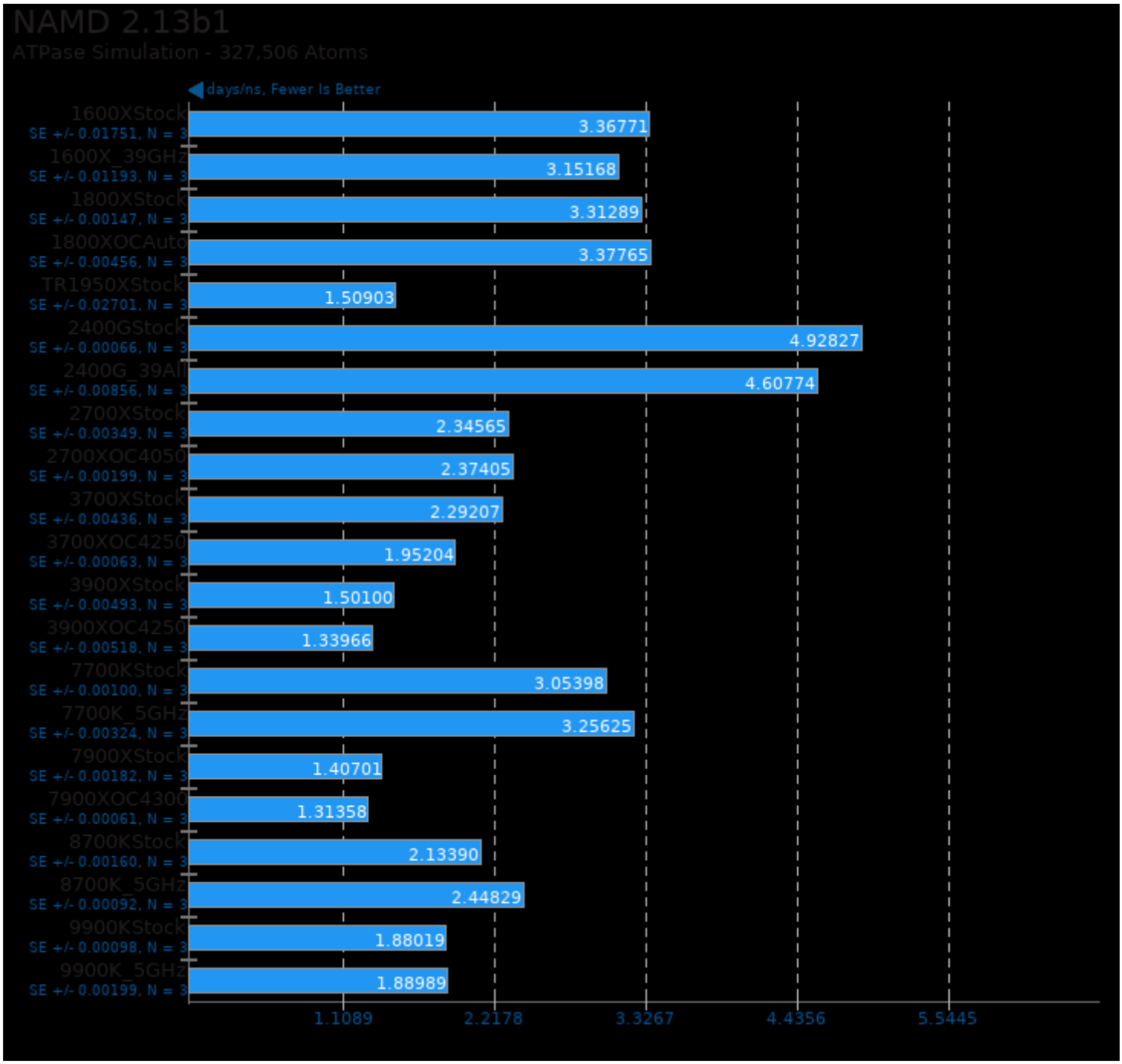
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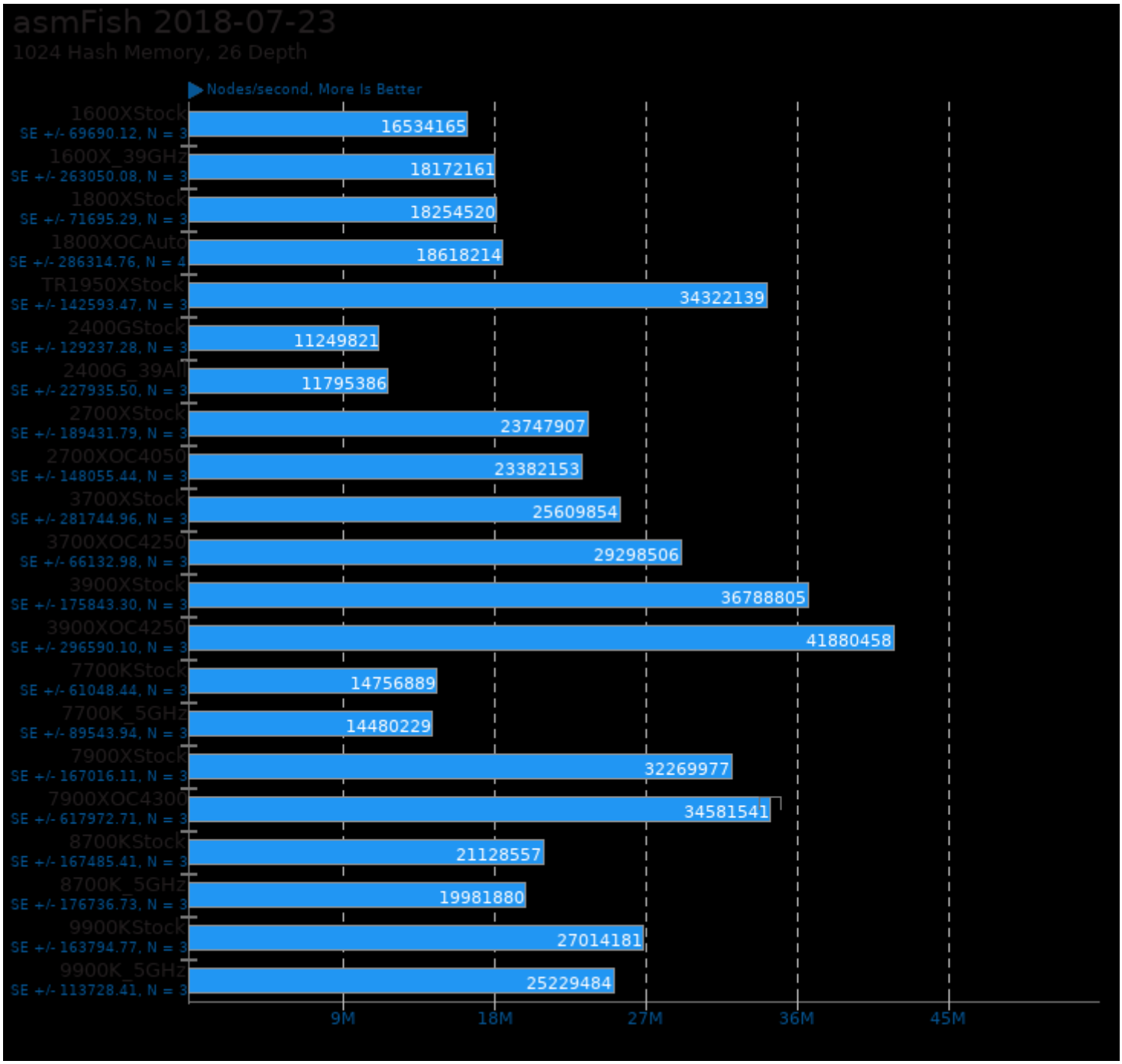
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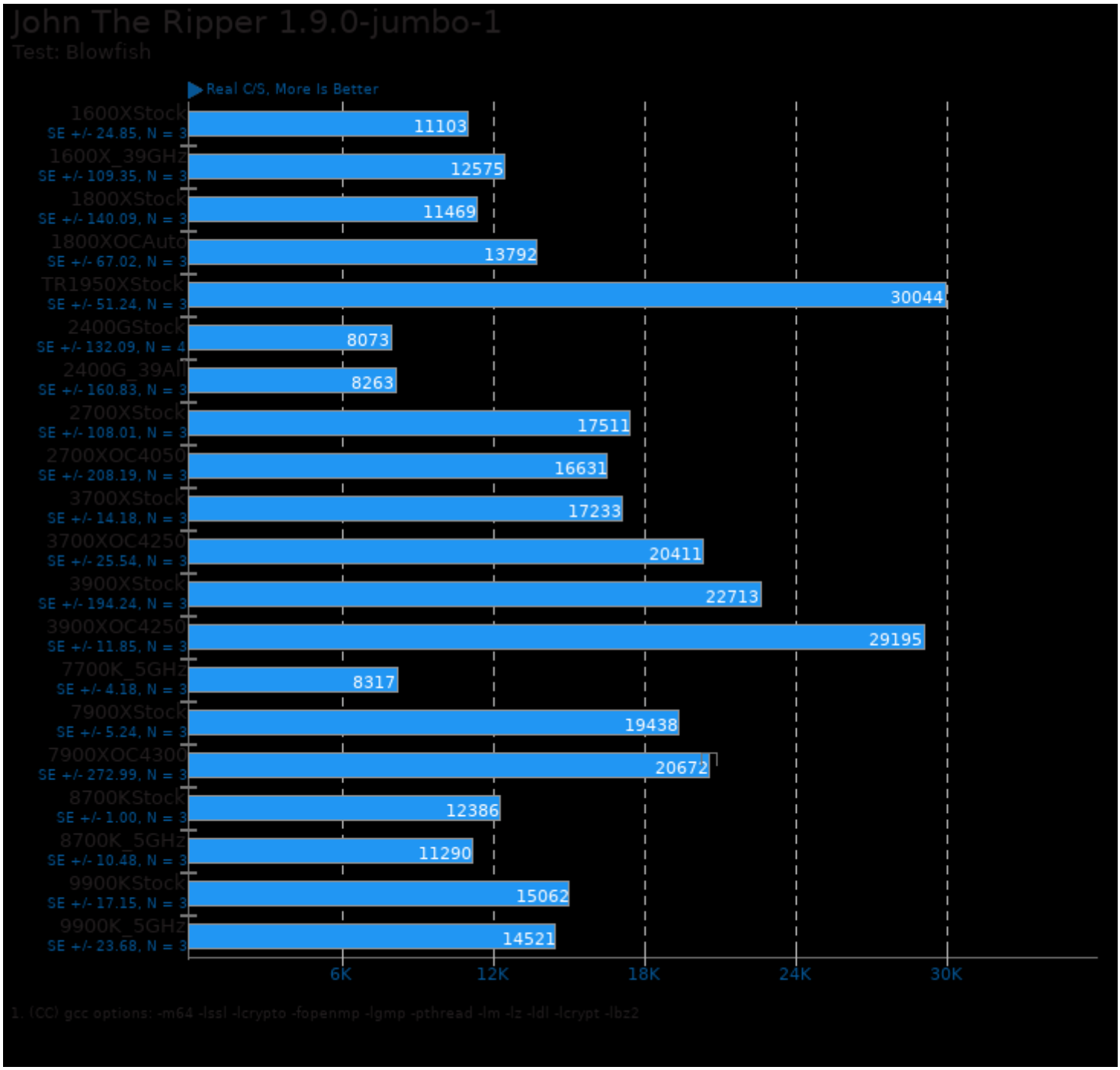
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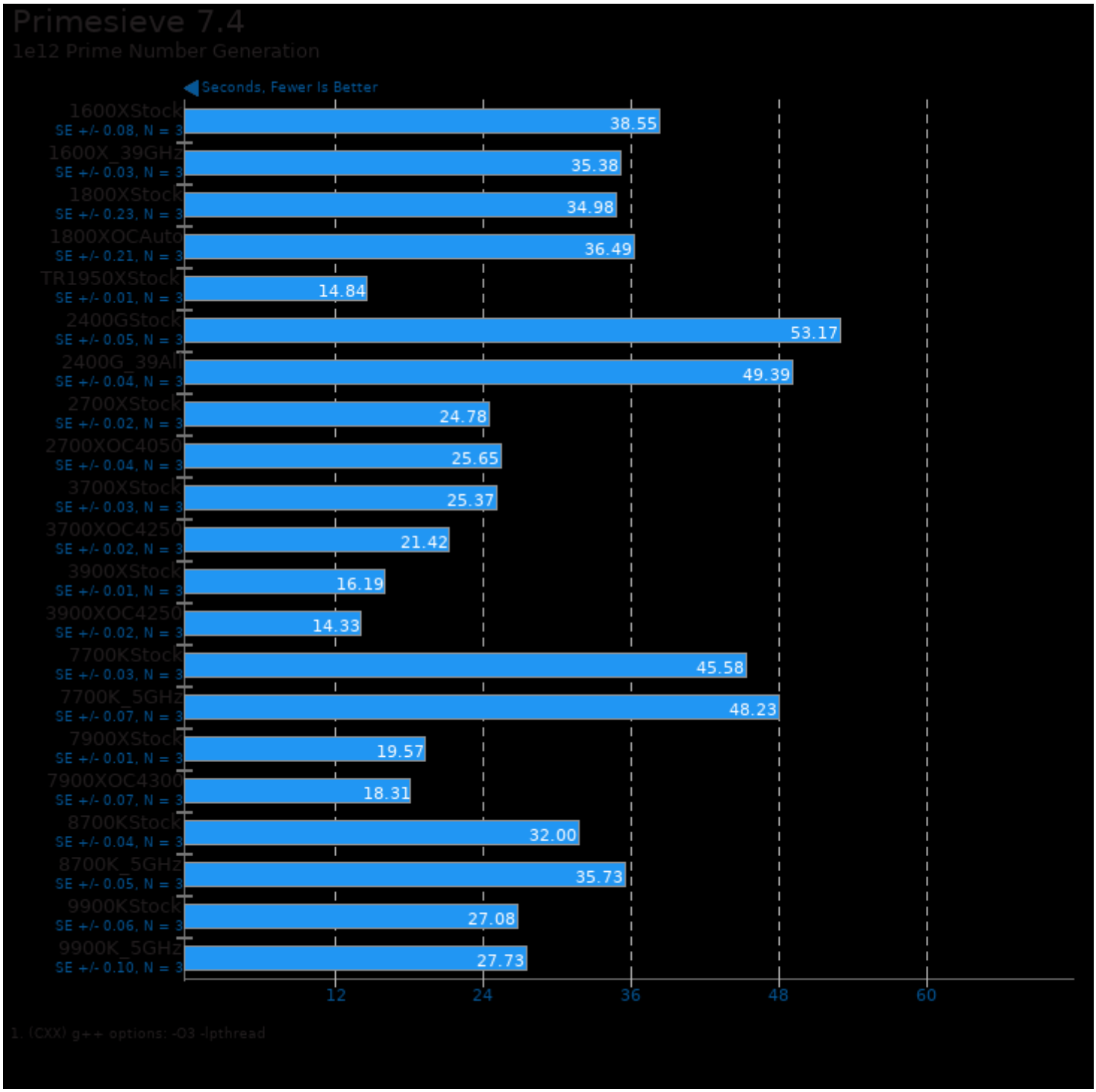
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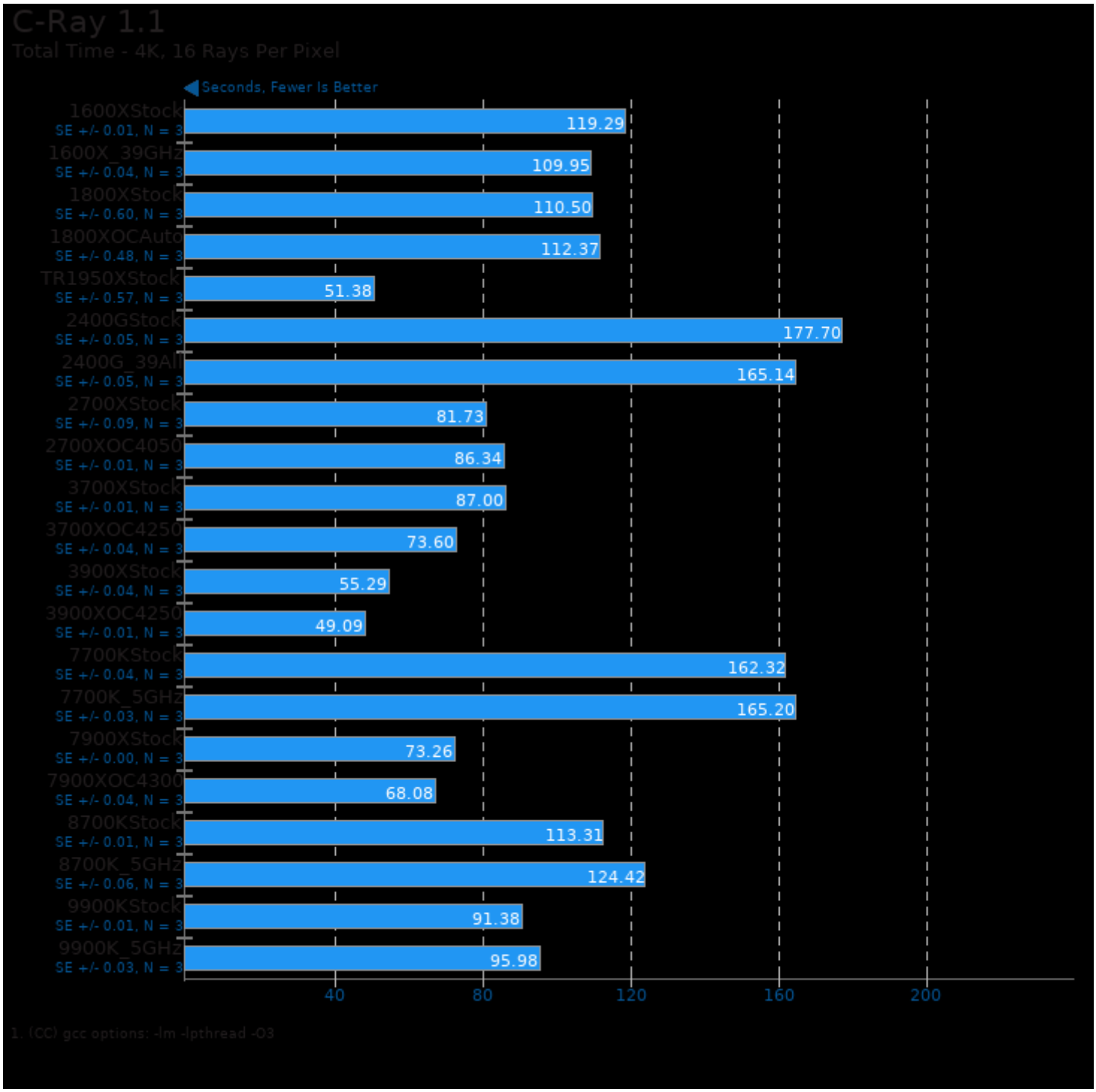
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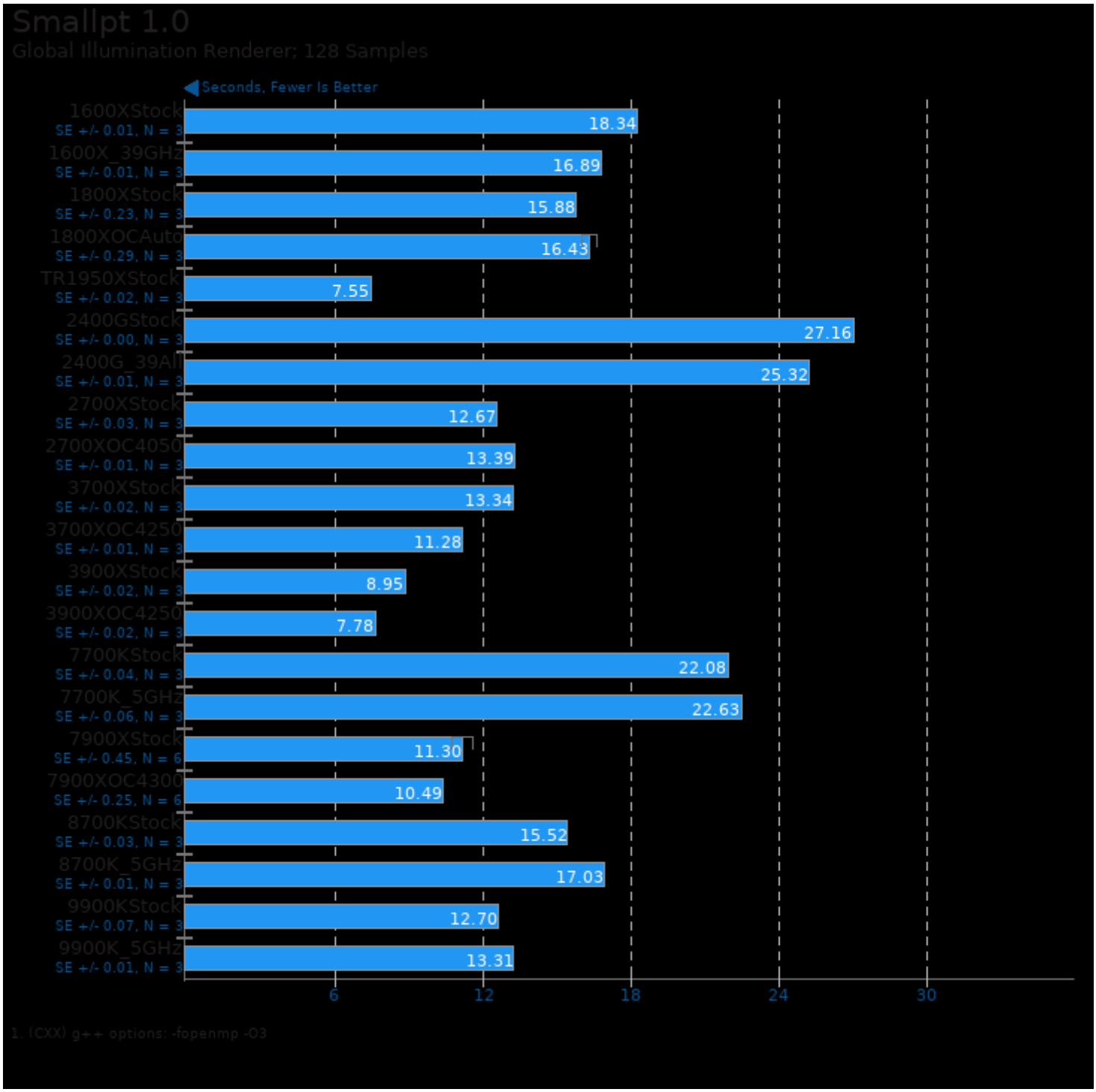
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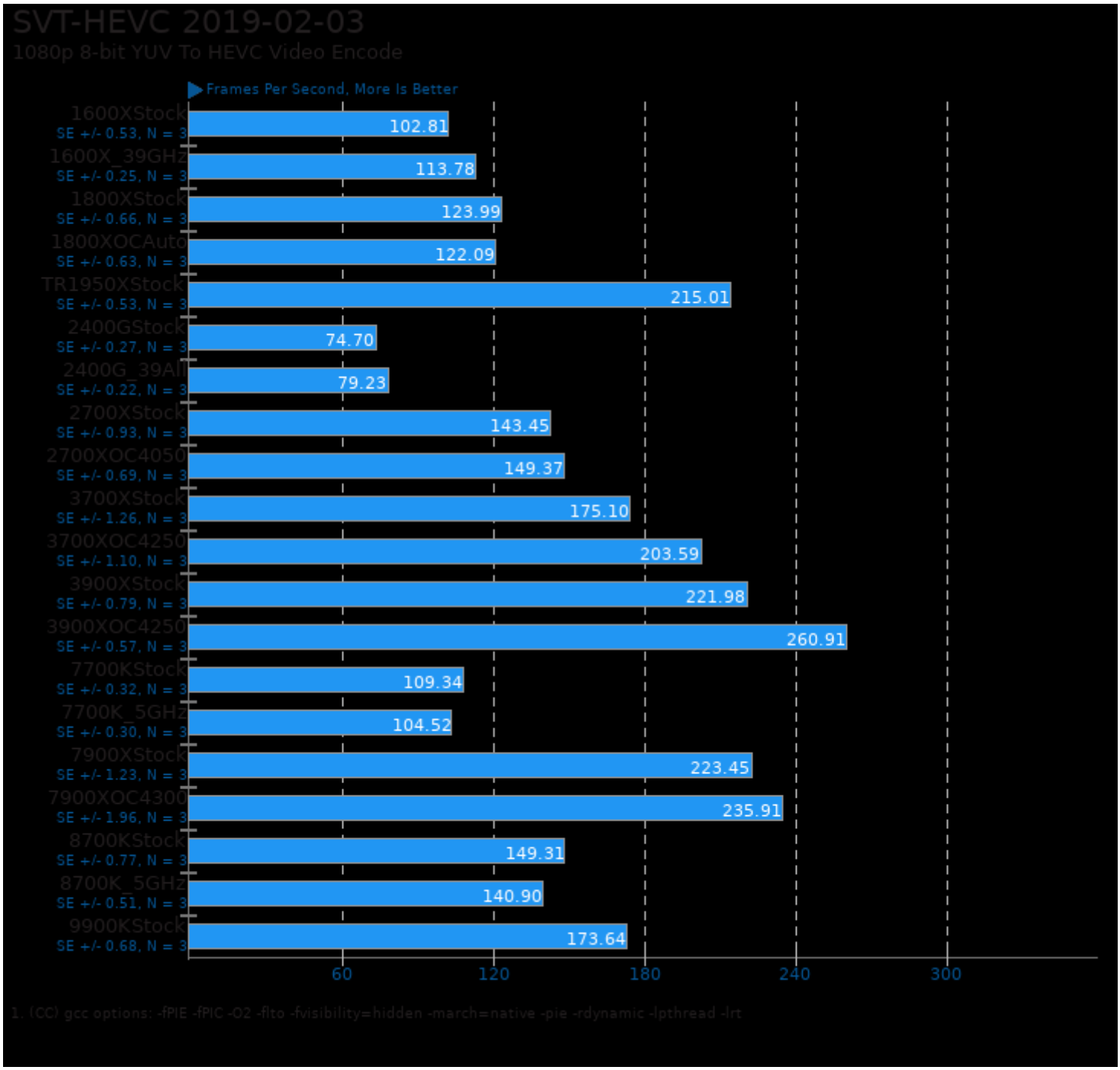
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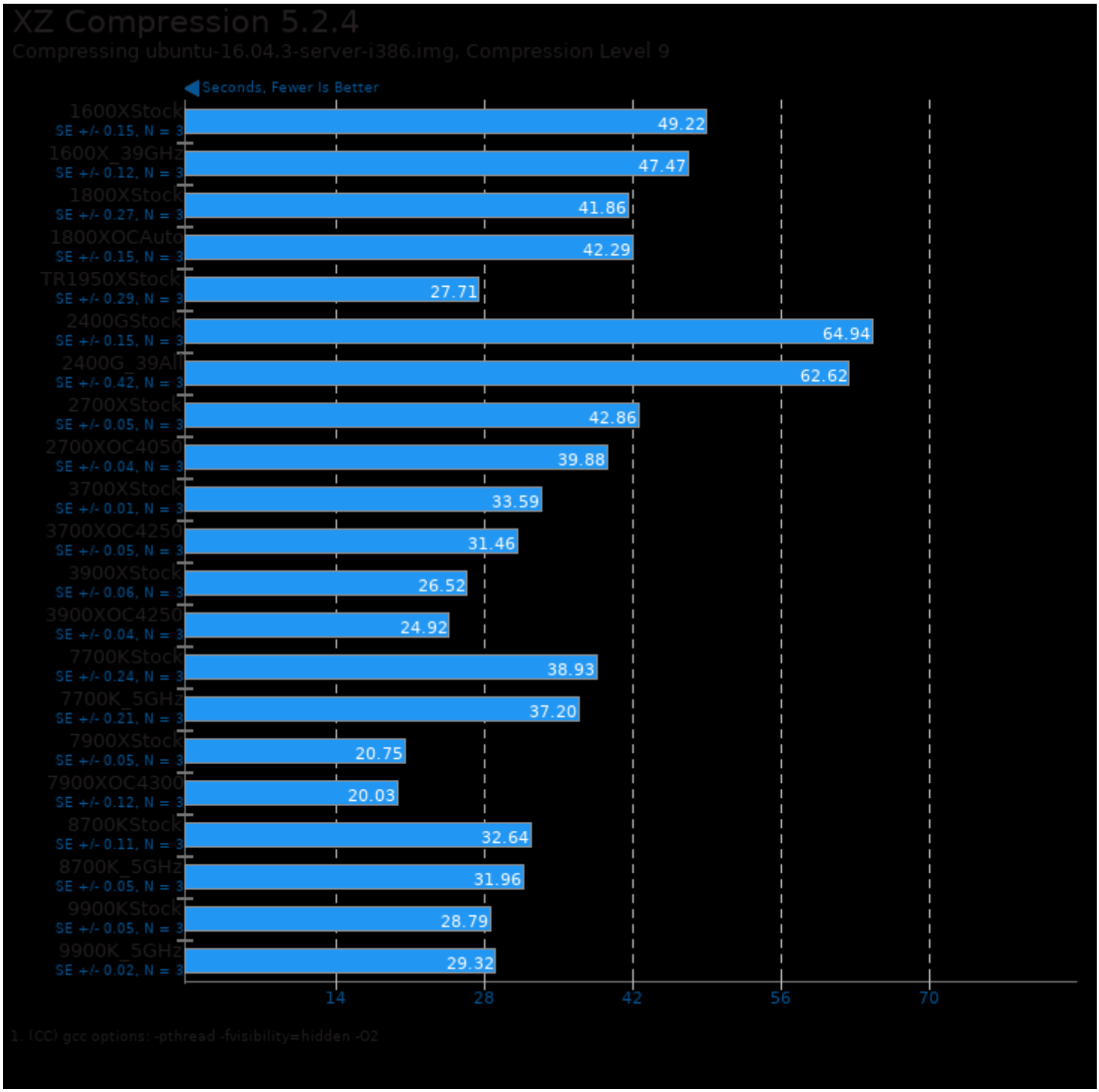


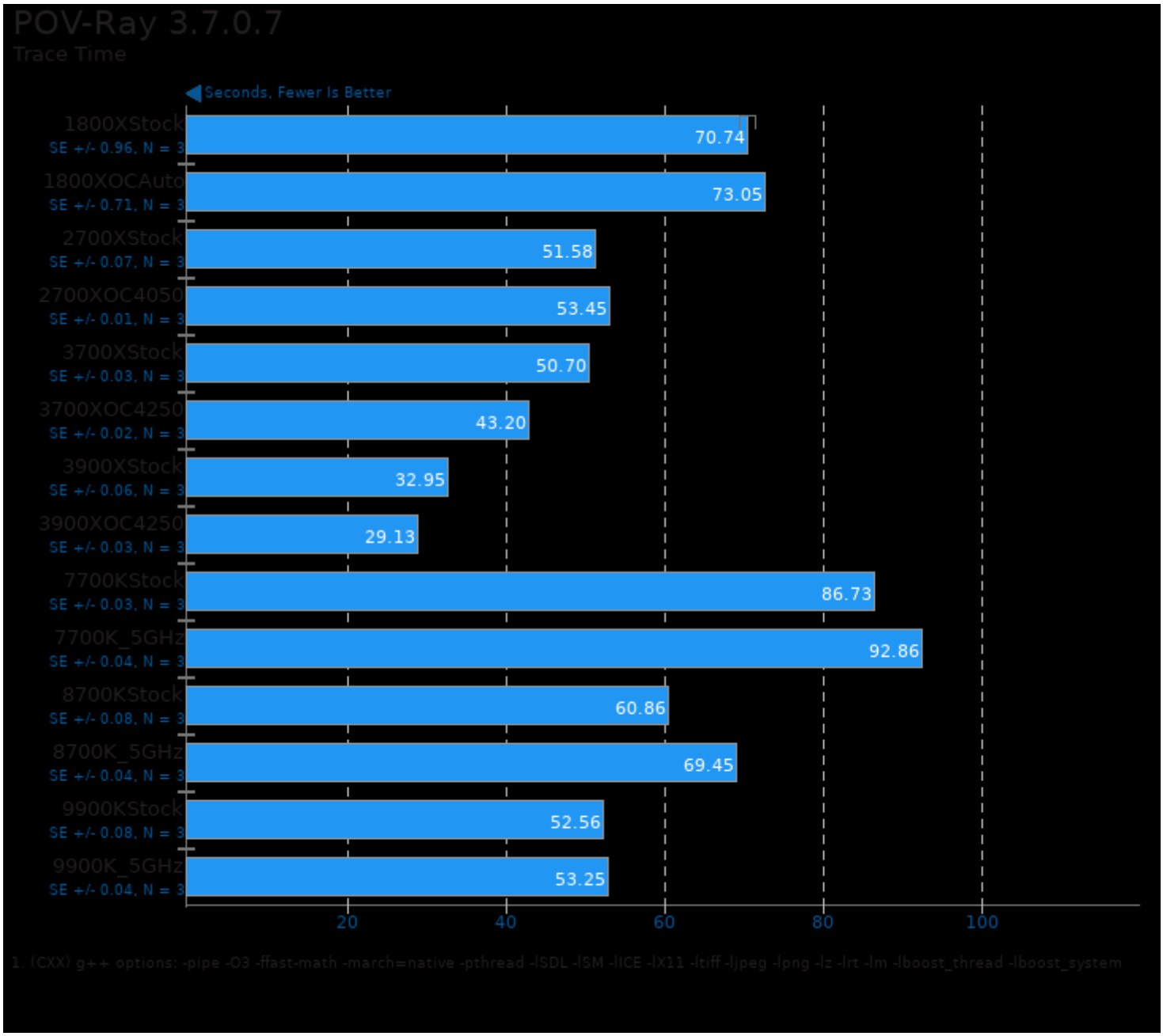
xdacputestsep2019



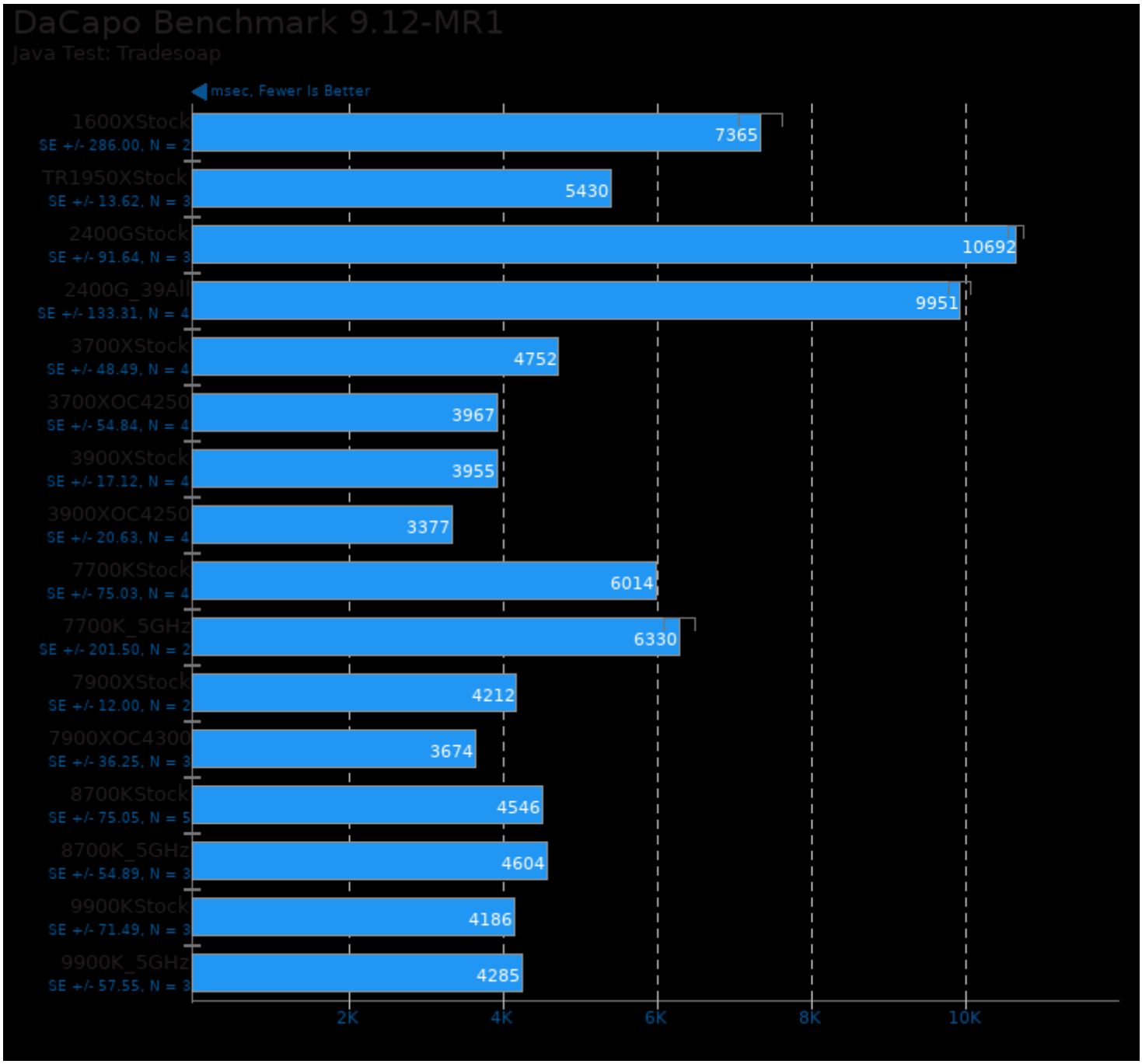
xdacputestsep2019



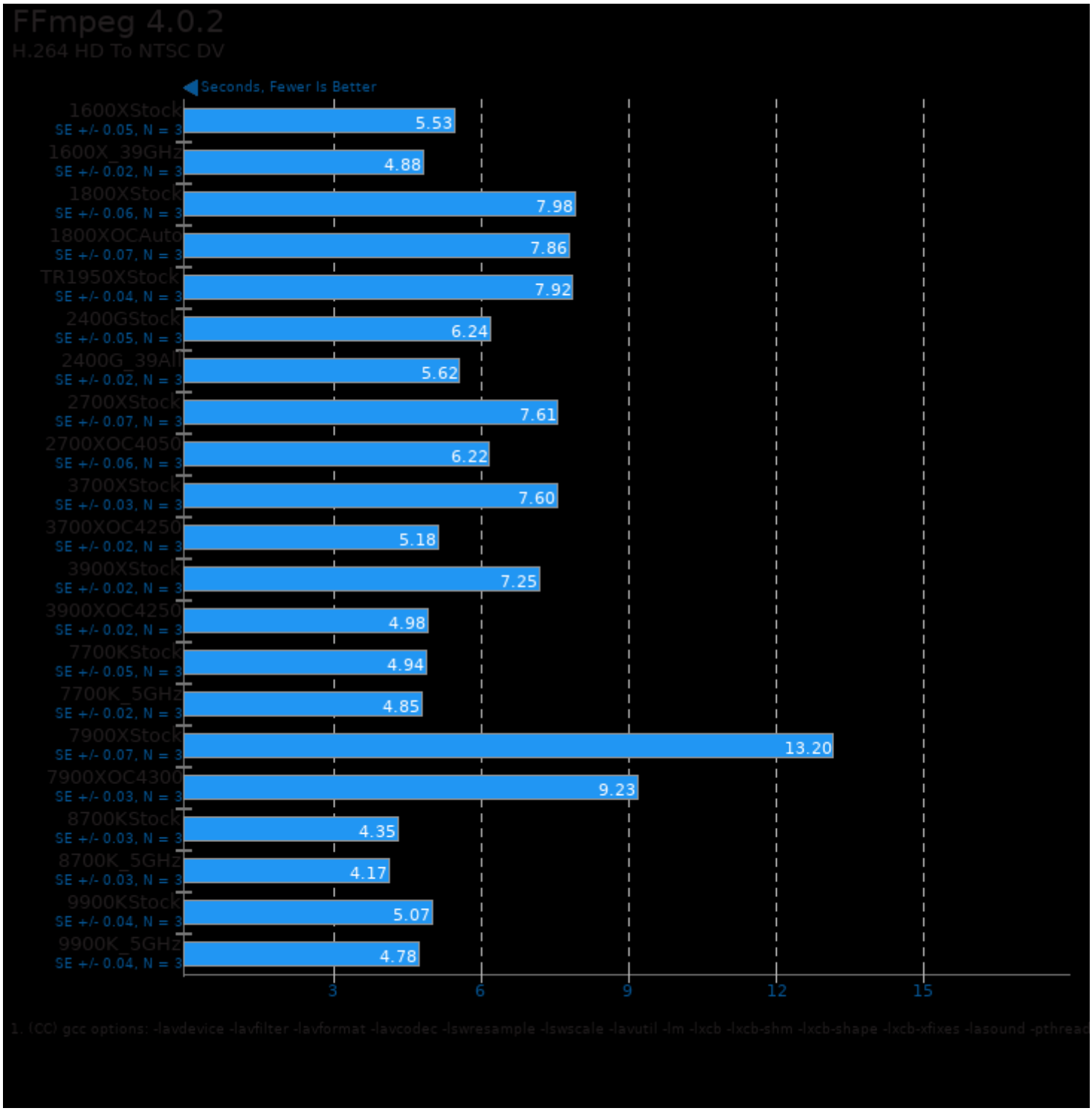

XZ Compression 5.2.4
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 9
Seconds, Fewer Is Better
1600XStock
SE +/- 0.15, N = 3
49.22
1600X_39GHz
SE +/- 0.12, N = 3
47.47
1800XStock
SE +/- 0.27, N = 3
41.86
1800XOCAuto
SE +/- 0.15, N = 3
42.29
TR1950XStock
SE +/- 0.29, N = 3
27.71
2400GStock
SE +/- 0.15, N = 3
64.94
2400G_39AM
SE +/- 0.42, N = 3
62.62
2700XStock
SE +/- 0.05, N = 3
42.86
2700XOC4050
SE +/- 0.04, N = 3
39.88
3700XStock
SE +/- 0.01, N = 3
33.59
3700XOC4250
SE +/- 0.05, N = 3
31.46
3900XStock
SE +/- 0.06, N = 3
26.52
3900XOC4250
SE +/- 0.04, N = 3
24.92
7700KStock
SE +/- 0.24, N = 3
38.93
7700K_5GHz
SE +/- 0.21, N = 3
37.20
7900XStock
SE +/- 0.05, N = 3
20.75
7900XOC4300
SE +/- 0.12, N = 3
20.03
8700KStock
SE +/- 0.11, N = 3
32.64
8700K_5GHz
SE +/- 0.05, N = 3
31.96
9900KStock
SE +/- 0.05, N = 3
28.79
9900K_5GHz
SE +/- 0.02, N = 3
29.32
14
28
42
56
70
1. (CC) gcc options: -pthread -fvisibility=hidden -O2

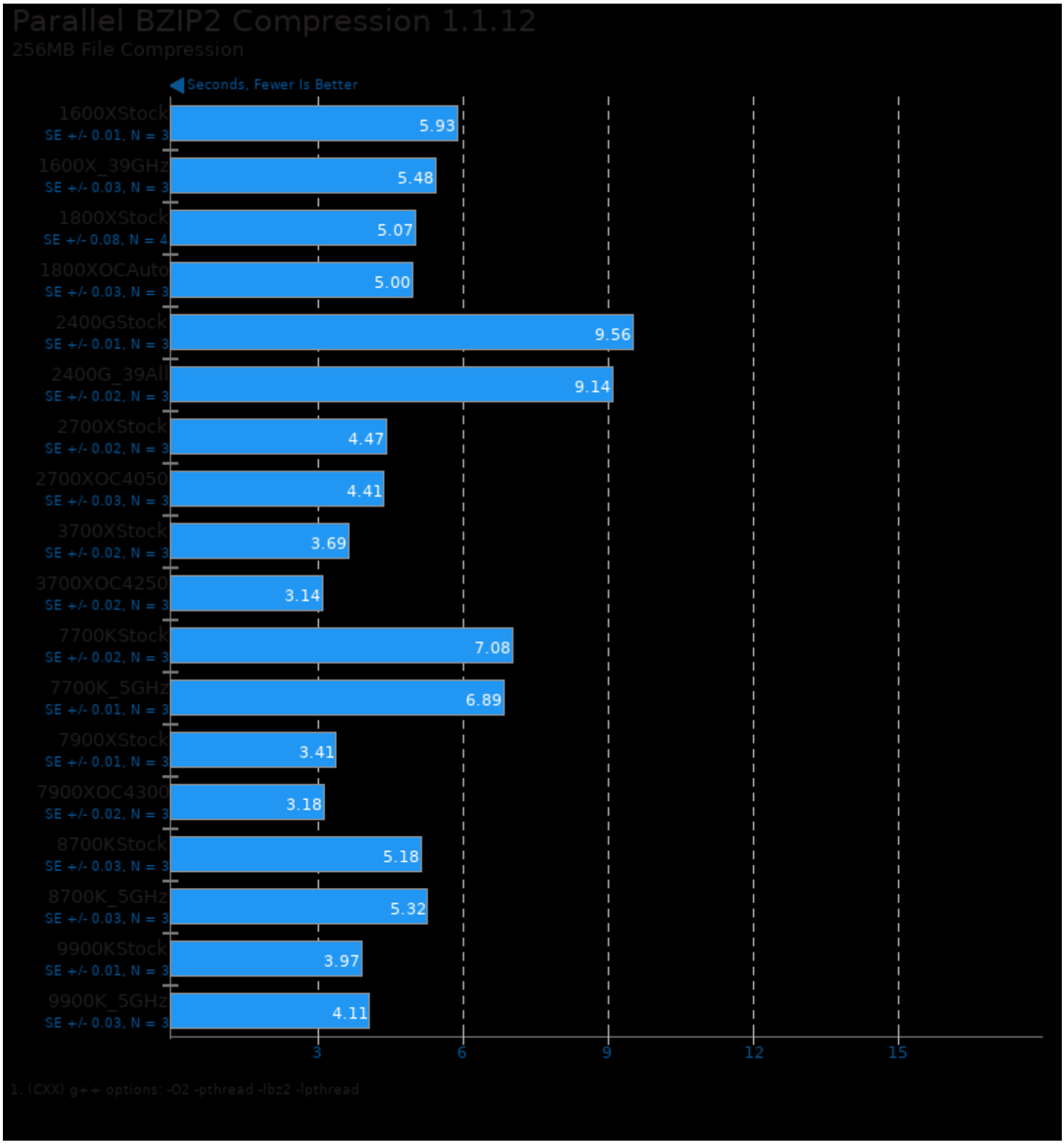

POV-Ray 3.7.0.7
Trace Time
Seconds, Fewer Is Better
1800XStock
SE +/- 0.96, N = 3
70.74
1800XOCAuto
SE +/- 0.71, N = 3
73.05
2700XStock
SE +/- 0.07, N = 3
51.58
2700XOC4050
SE +/- 0.01, N = 3
53.45
3700XStock
SE +/- 0.03, N = 3
50.70
3700XOC4250
SE +/- 0.02, N = 3
43.20
3900XStock
SE +/- 0.06, N = 3
32.95
3900XOC4250
SE +/- 0.03, N = 3
29.13
7700KStock
SE +/- 0.03, N = 3
86.73
7700K_5GHz
SE +/- 0.04, N = 3
92.86
8700KStock
SE +/- 0.08, N = 3
60.86
8700K_5GHz
SE +/- 0.04, N = 3
69.45
9900KStock
SE +/- 0.08, N = 3
52.56
9900K_5GHz
SE +/- 0.04, N = 3
53.25
20
40
60
80
100
1. (CXX) g++ options: -pipe -O3 -ffast-math -march=native -pthread -lSDL -lSM -lICE -lX11 -ltiff -ljpeg -lpng -lz -lrt -lm -lboost_thread -lboost_system

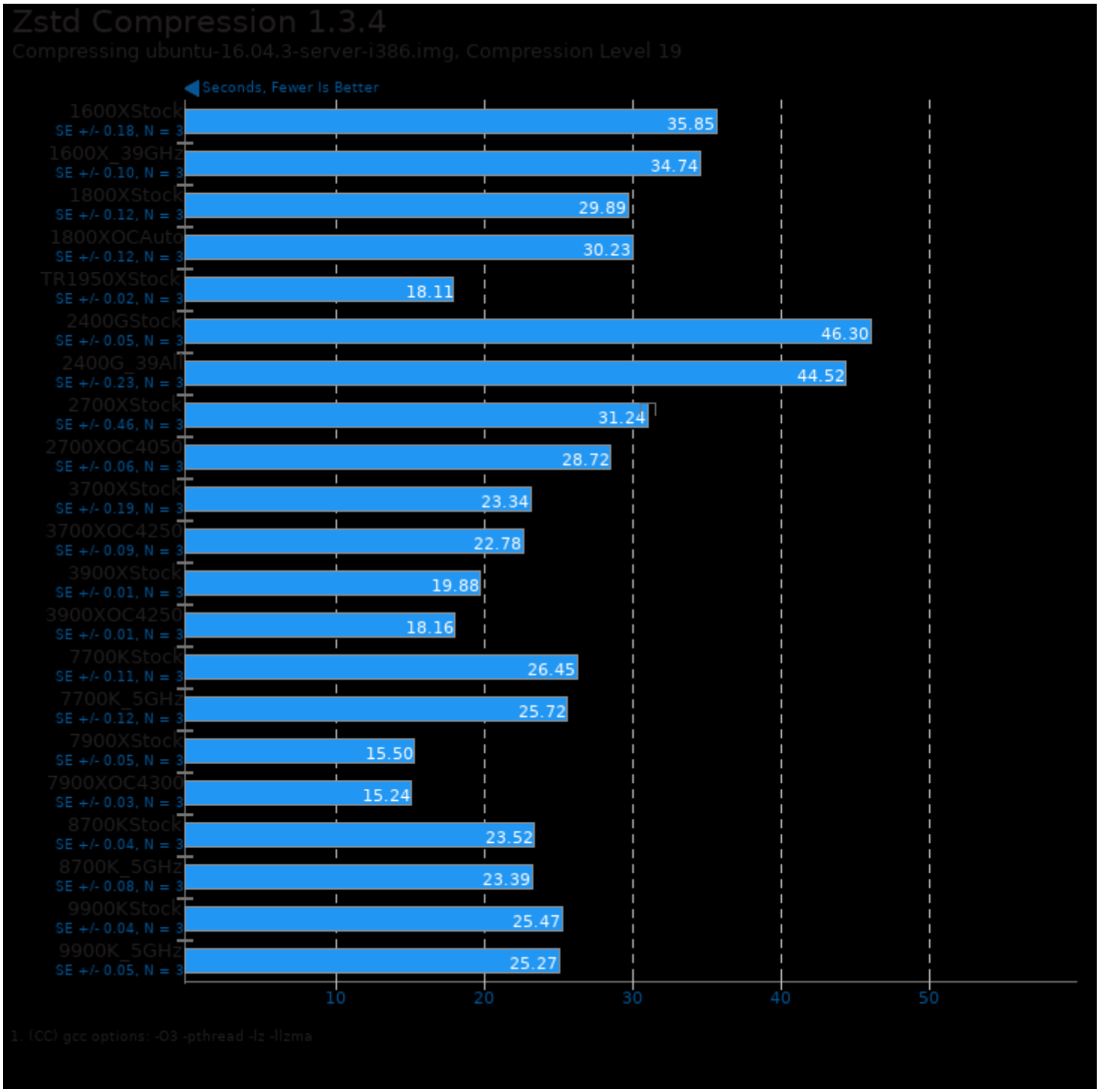
xdacputestsep2019



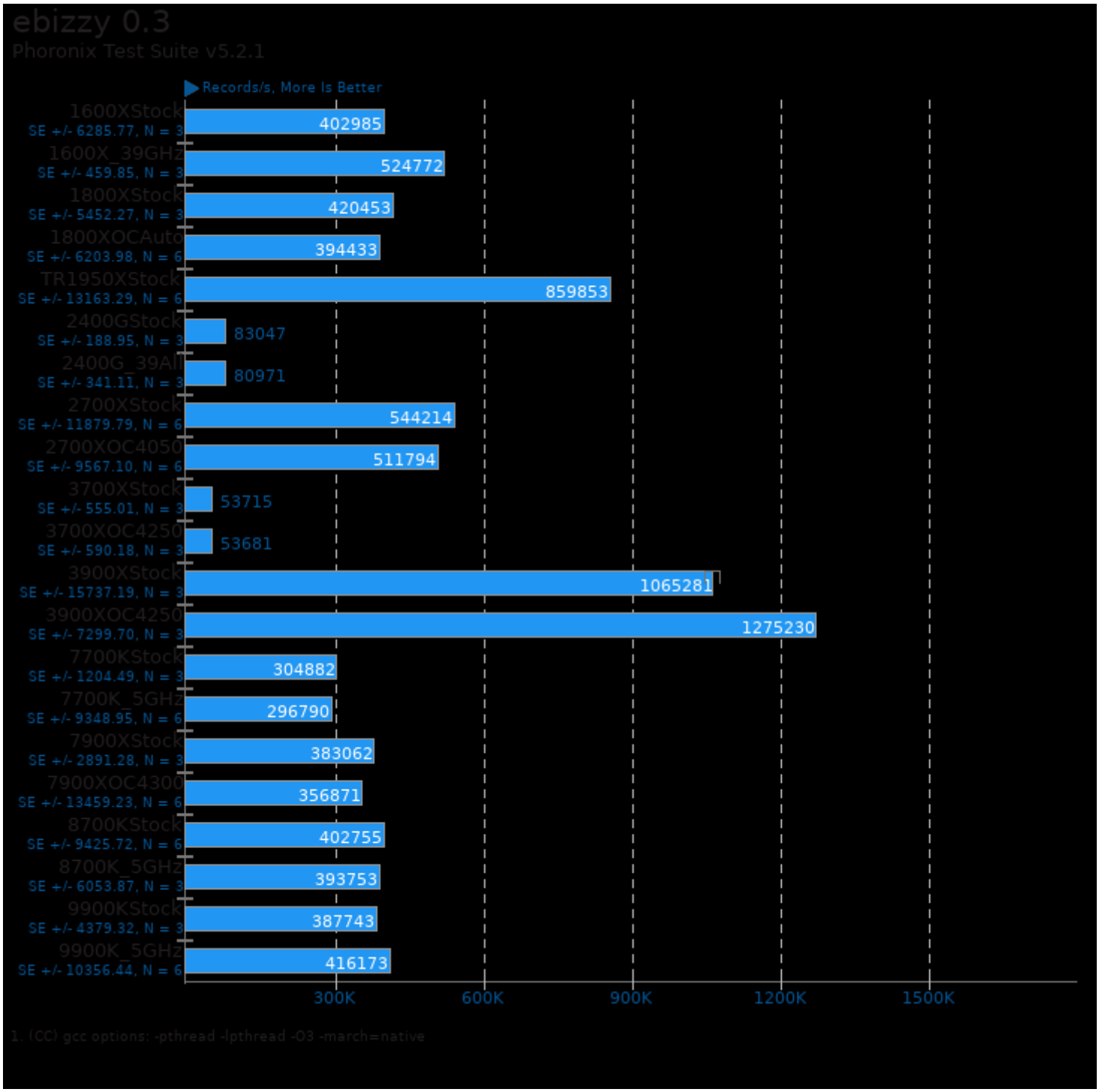
xdacputestsep2019



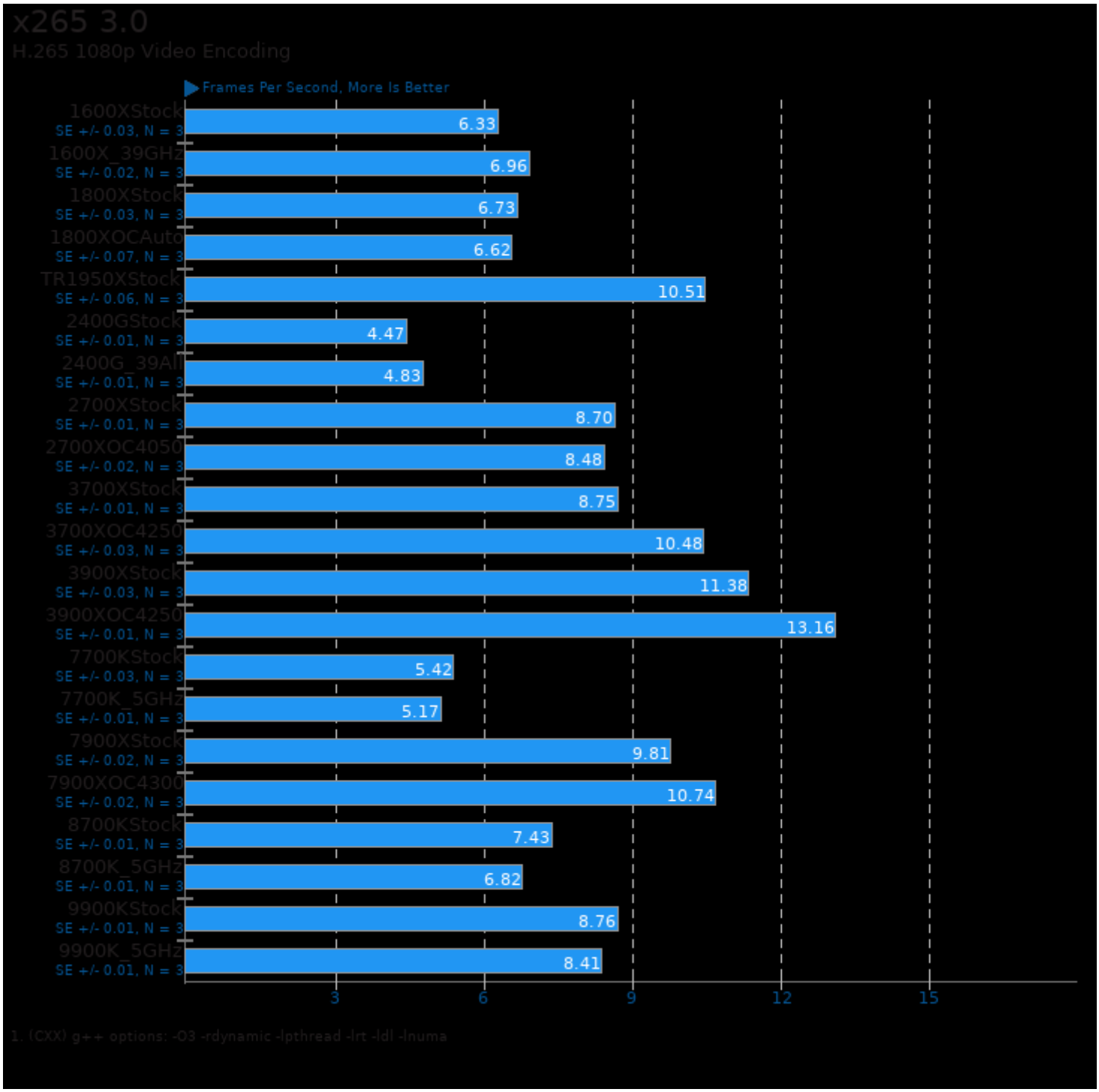

Parallel BZIP2 Compression 1.1.12
256MB File Compression
Seconds, Fewer Is Better
1600XStock
SE +/- 0.01, N = 3
5.93
1600X_39GHz
SE +/- 0.03, N = 3
5.48
1800XStock
SE +/- 0.08, N = 4
5.07
1800XOCAuto
SE +/- 0.03, N = 3
5.00
2400GStock
SE +/- 0.01, N = 3
9.56
2400G_39All
SE +/- 0.02, N = 3
9.14
2700XStock
SE +/- 0.02, N = 3
4.47
2700XOC4050
SE +/- 0.03, N = 3
4.41
3700XStock
SE +/- 0.02, N = 3
3.69
3700XOC4250
SE +/- 0.02, N = 3
3.14
7700KStock
SE +/- 0.02, N = 3
7.08
7700K_5GHz
SE +/- 0.01, N = 3
6.89
7900XStock
SE +/- 0.01, N = 3
3.41
7900XOC4300
SE +/- 0.02, N = 3
3.18
8700KStock
SE +/- 0.03, N = 3
5.18
8700K_5GHz
SE +/- 0.03, N = 3
5.32
9900KStock
SE +/- 0.01, N = 3
3.97
9900K_5GHz
SE +/- 0.03, N = 3
4.11
3
6
9
12
15
1. (CXX) g++ options: -O2 -pthread -lbz2 -lpthread


Zstd Compression 1.3.4
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19
Seconds, Fewer Is Better
1600XStock
SE +/- 0.18, N = 3
35.85
1600X_39GHz
SE +/- 0.10, N = 3
34.74
1800XStock
SE +/- 0.12, N = 3
29.89
1800XOCAuto
SE +/- 0.12, N = 3
30.23
TR1950XStock
SE +/- 0.02, N = 3
18.11
2400GStock
SE +/- 0.05, N = 3
46.30
2400G_39AM
SE +/- 0.23, N = 3
44.52
2700XStock
SE +/- 0.46, N = 3
31.24
2700XOC4050
SE +/- 0.06, N = 3
28.72
3700XStock
SE +/- 0.19, N = 3
23.34
3700XOC4250
SE +/- 0.09, N = 3
22.78
3900XStock
SE +/- 0.01, N = 3
19.88
3900XOC4250
SE +/- 0.01, N = 3
18.16
7700KStock
SE +/- 0.11, N = 3
26.45
7700K_5GHz
SE +/- 0.12, N = 3
25.72
7900XStock
SE +/- 0.05, N = 3
15.50
7900XOC4300
SE +/- 0.03, N = 3
15.24
8700KStock
SE +/- 0.04, N = 3
23.52
8700K_5GHz
SE +/- 0.08, N = 3
23.39
9900KStock
SE +/- 0.04, N = 3
25.47
9900K_5GHz
SE +/- 0.05, N = 3
25.27
10
20
30
40
50
1. (CC) gcc options: -O3 -pthread -lz -llzma

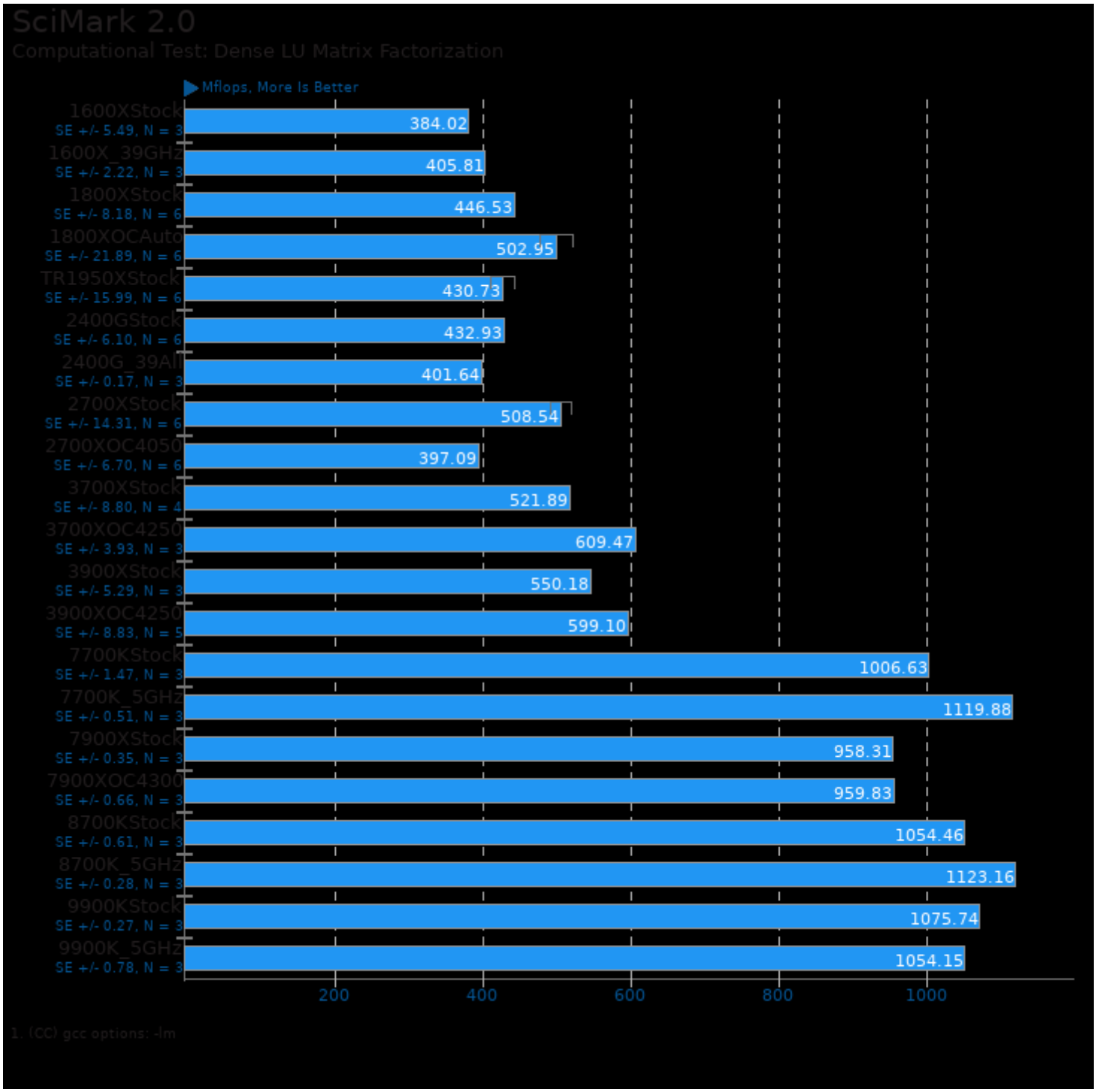
xdacputestsep2019

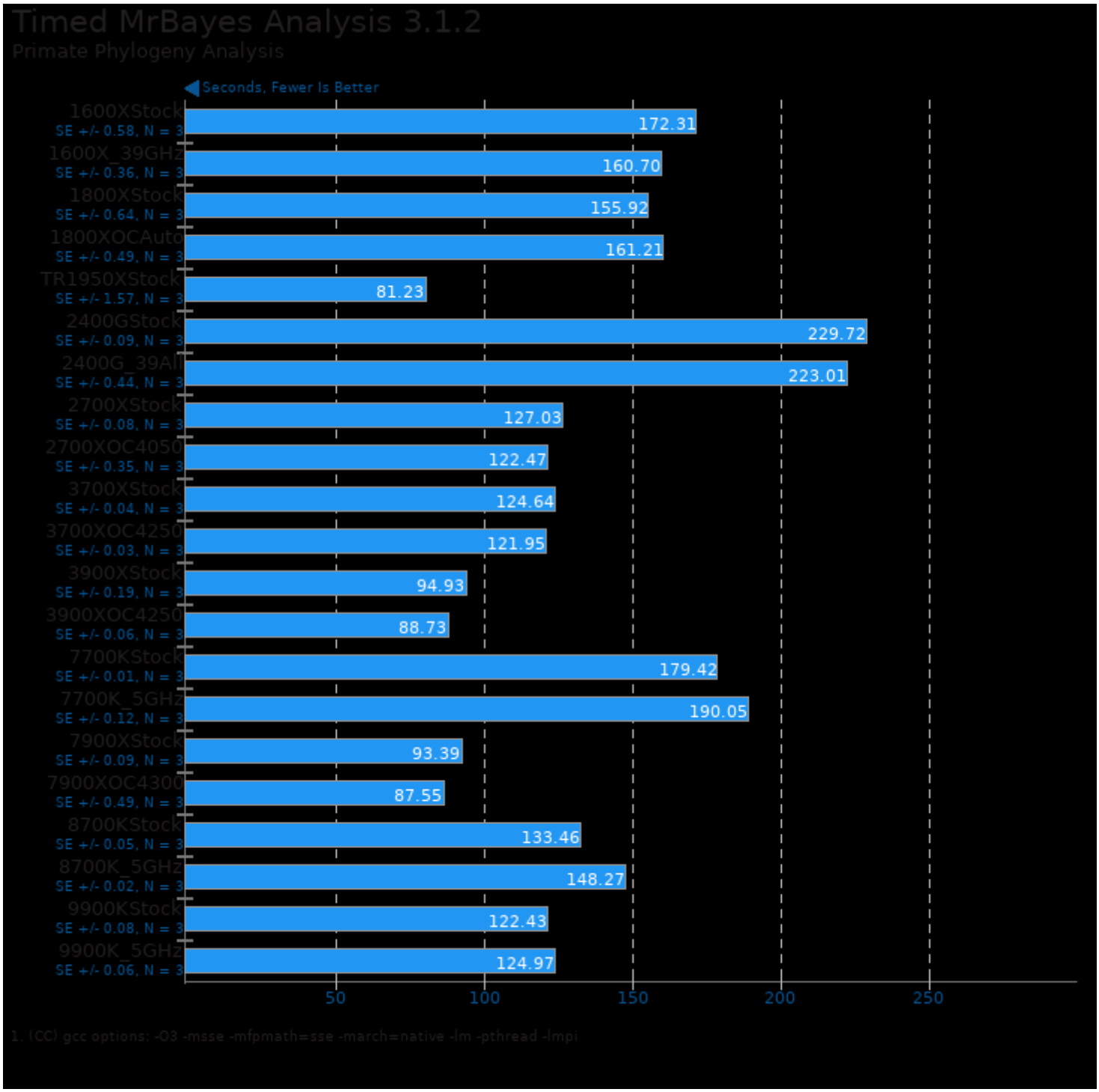


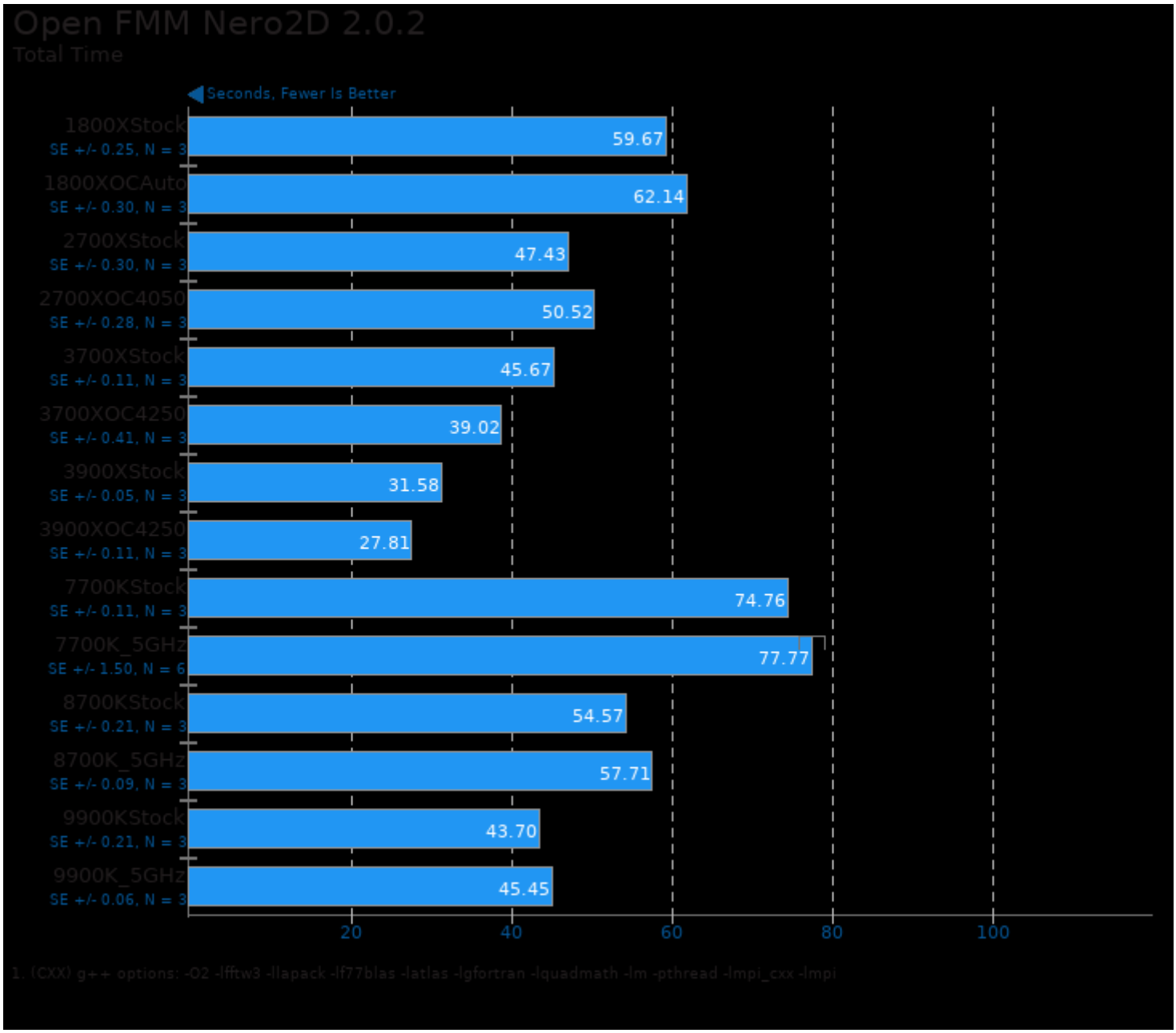
xdacputestsep2019



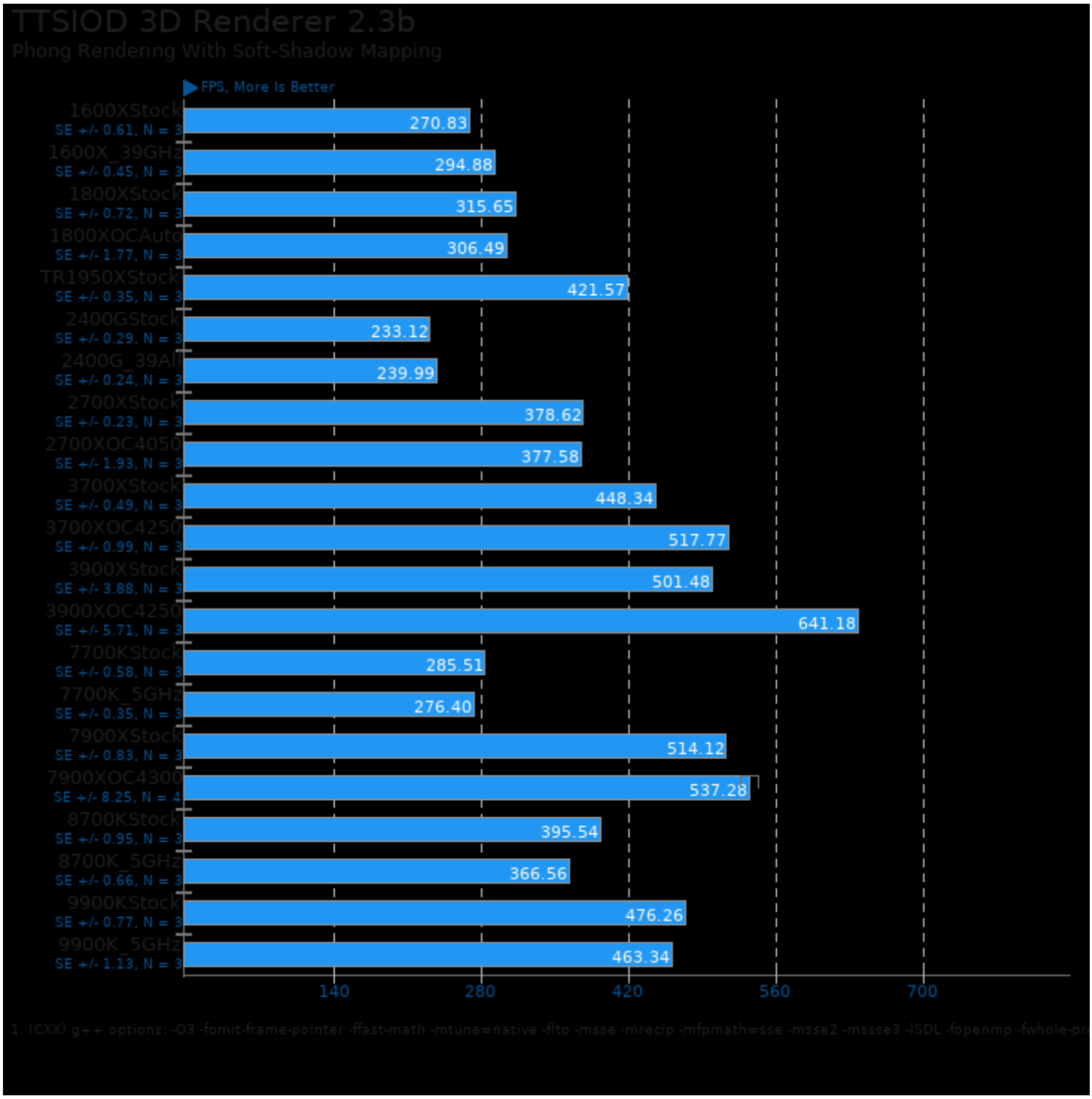
xdacputestsep2019

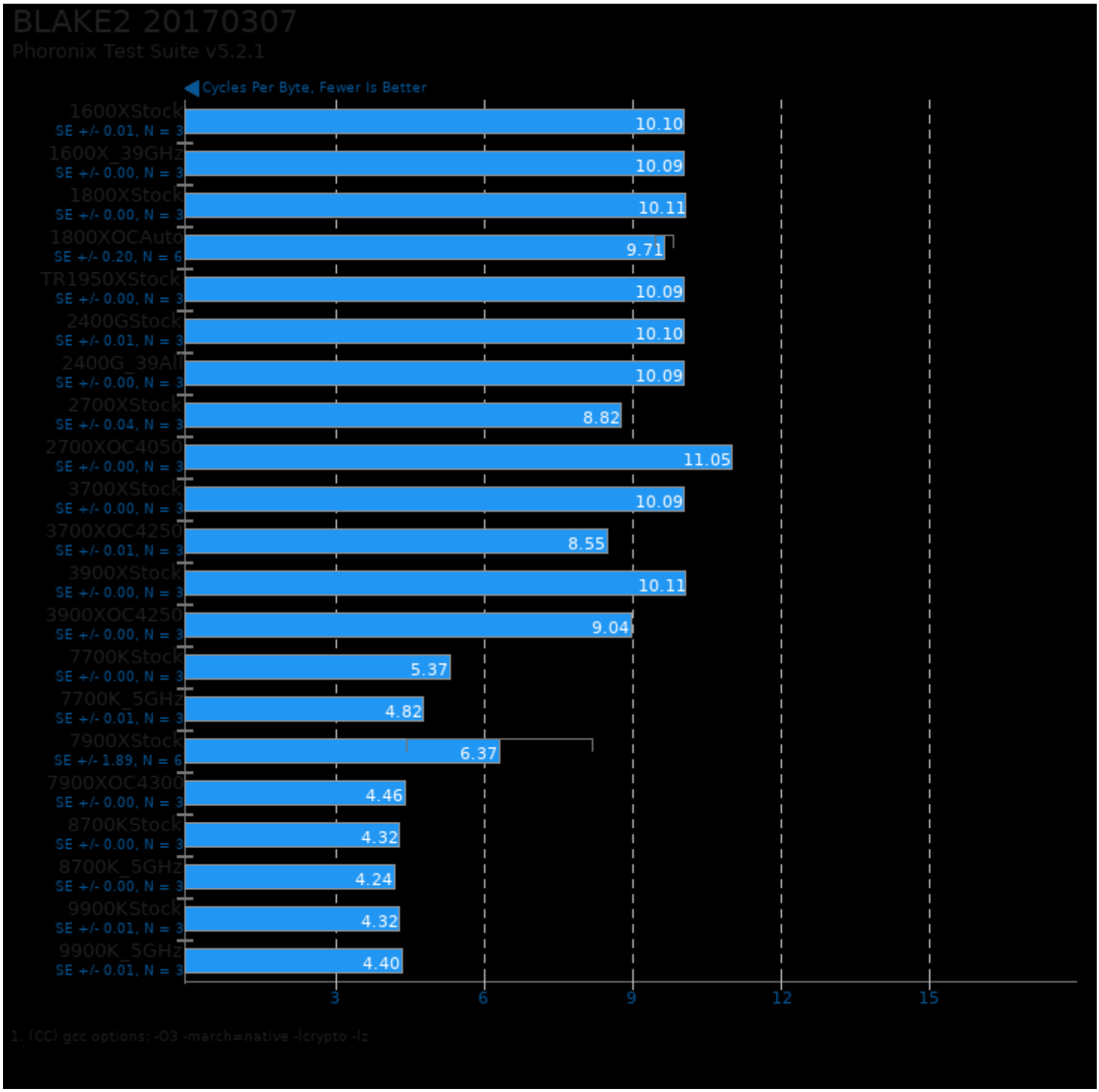


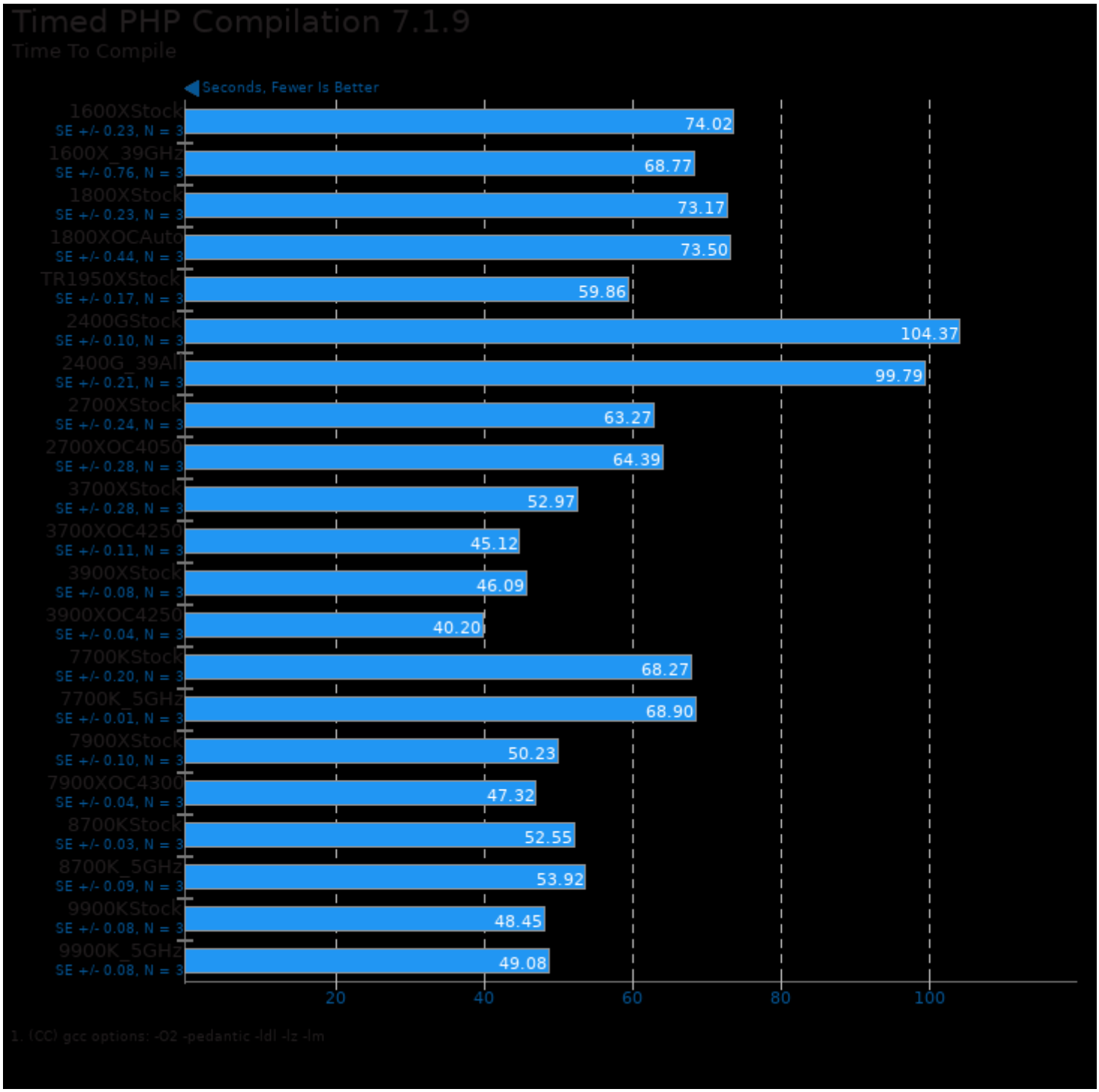

Timed MrBayes Analysis 3.1.2
Primate Phylogeny Analysis
Seconds, Fewer Is Better
1600XStock
SE +/- 0.58, N = 3
172.31
1600X_39GHz
SE +/- 0.36, N = 3
160.70
1800XStock
SE +/- 0.64, N = 3
155.92
1800XOCAuto
SE +/- 0.49, N = 3
161.21
TR1950XStock
SE +/- 1.57, N = 3
81.23
2400GStock
SE +/- 0.09, N = 3
229.72
2400G_39AM
SE +/- 0.44, N = 3
223.01
2700XStock
SE +/- 0.08, N = 3
127.03
2700XOC4050
SE +/- 0.35, N = 3
122.47
3700XStock
SE +/- 0.04, N = 3
124.64
3700XOC4250
SE +/- 0.03, N = 3
121.95
3900XStock
SE +/- 0.19, N = 3
94.93
3900XOC4250
SE +/- 0.06, N = 3
88.73
7700KStock
SE +/- 0.01, N = 3
179.42
7700K_5GHz
SE +/- 0.12, N = 3
190.05
7900XStock
SE +/- 0.09, N = 3
93.39
7900XOC4300
SE +/- 0.49, N = 3
87.55
8700KStock
SE +/- 0.05, N = 3
133.46
8700K_5GHz
SE +/- 0.02, N = 3
148.27
9900KStock
SE +/- 0.08, N = 3
122.43
9900K_5GHz
SE +/- 0.06, N = 3
124.97
50
100
150
200
250
1. (CC) gcc options: -O3 -msse -mfpmath=sse -march=native -lm -pthread -lmpi


Open FMM Nero2D 2.0.2
Total Time
Seconds, Fewer Is Better
1800XStock
SE +/- 0.25, N = 3
59.67
1800XOCAuto
SE +/- 0.30, N = 3
62.14
2700XStock
SE +/- 0.30, N = 3
47.43
2700XOC4050
SE +/- 0.28, N = 3
50.52
3700XStock
SE +/- 0.11, N = 3
45.67
3700XOC4250
SE +/- 0.41, N = 3
39.02
3900XStock
SE +/- 0.05, N = 3
31.58
3900XOC4250
SE +/- 0.11, N = 3
27.81
7700KStock
SE +/- 0.11, N = 3
74.76
7700K_5GHz
SE +/- 1.50, N = 6
77.77
8700KStock
SE +/- 0.21, N = 3
54.57
8700K_5GHz
SE +/- 0.09, N = 3
57.71
9900KStock
SE +/- 0.21, N = 3
43.70
9900K_5GHz
SE +/- 0.06, N = 3
45.45
20
40
60
80
100
1. (CXX) g++ options: -O2 -lfftw3 -llapack -lf77blas -latlas -lgfortran -lquadmath -lm -pthread -lmpi_cxx -lmpi

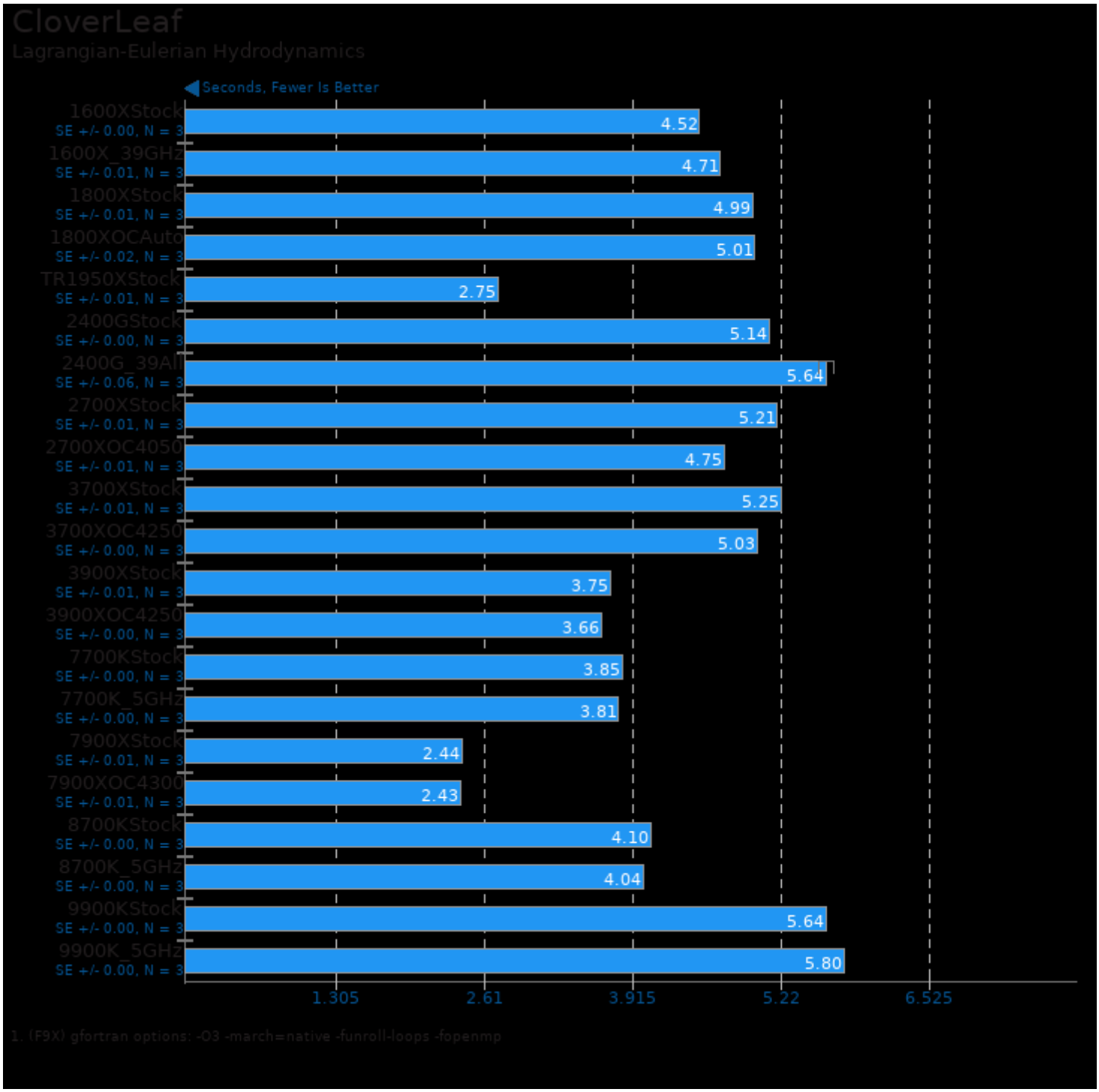
xdacputestsep2019

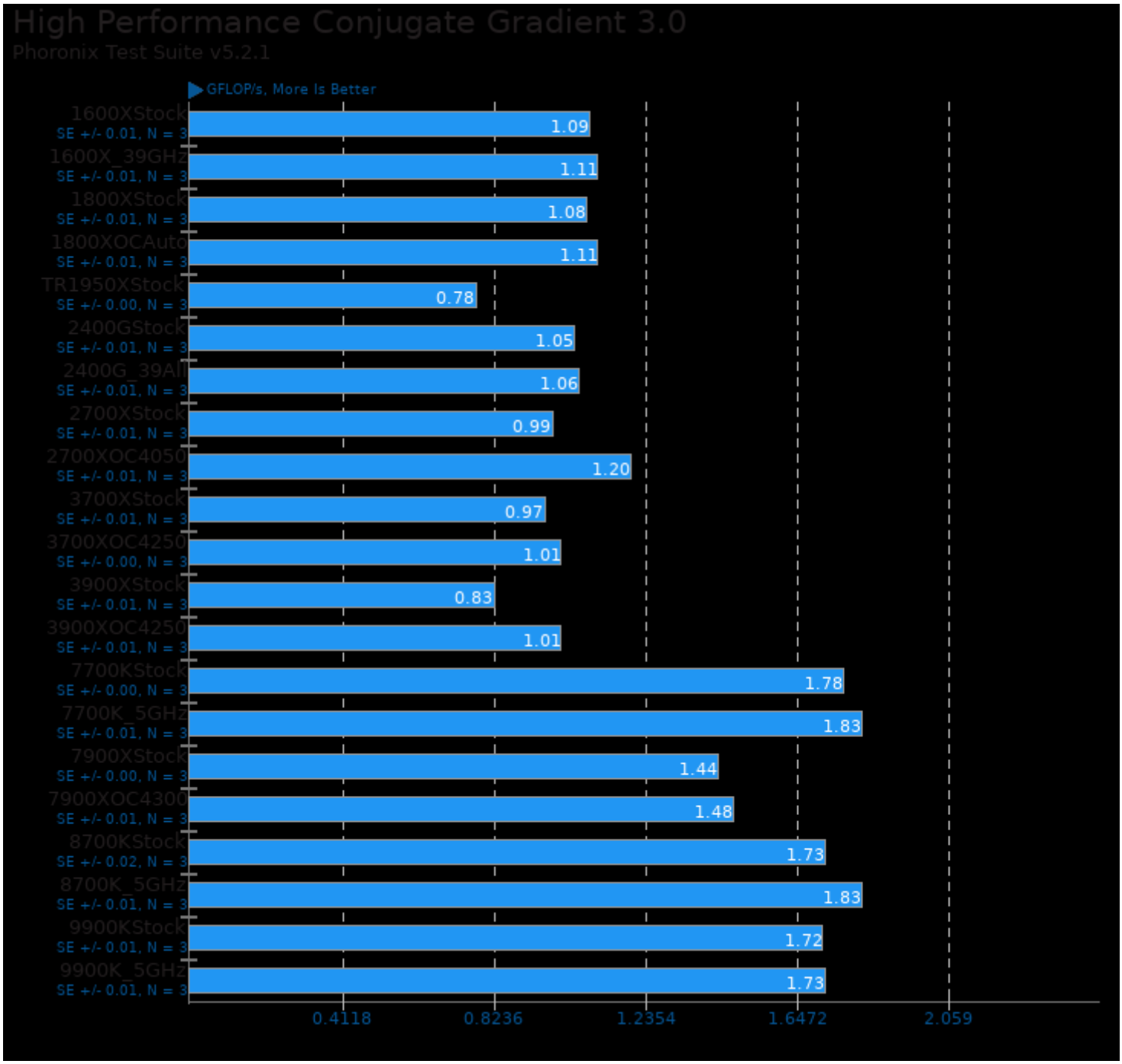



BLAKE2 20170307
Phoronix Test Suite v5.2.1
Cycles Per Byte, Fewer Is Better
1600XStock
SE +/- 0.01, N = 3
10.10
1600X_39GHz
SE +/- 0.00, N = 3
10.09
1800XStock
SE +/- 0.00, N = 3
10.11
1800XOCAuto
SE +/- 0.20, N = 6
9.71
TR1950XStock
SE +/- 0.00, N = 3
10.09
2400GStock
SE +/- 0.01, N = 3
10.10
2400G_39All
SE +/- 0.00, N = 3
10.09
2700XStock
SE +/- 0.04, N = 3
8.82
2700XOC4050
SE +/- 0.00, N = 3
11.05
3700XStock
SE +/- 0.00, N = 3
10.09
3700XOC4250
SE +/- 0.01, N = 3
8.55
3900XStock
SE +/- 0.00, N = 3
10.11
3900XOC4250
SE +/- 0.00, N = 3
9.04
7700KStock
SE +/- 0.00, N = 3
5.37
7700K_5GHz
SE +/- 0.01, N = 3
4.82
7900XStock
SE +/- 1.89, N = 6
6.37
7900XOC4300
SE +/- 0.00, N = 3
4.46
8700KStock
SE +/- 0.00, N = 3
4.32
8700K_5GHz
SE +/- 0.00, N = 3
4.24
9900KStock
SE +/- 0.01, N = 3
4.32
9900K_5GHz
SE +/- 0.01, N = 3
4.40
3
6
9
12
15
1. (CC) gcc options: -O3 -march=native -lcrypto -lz

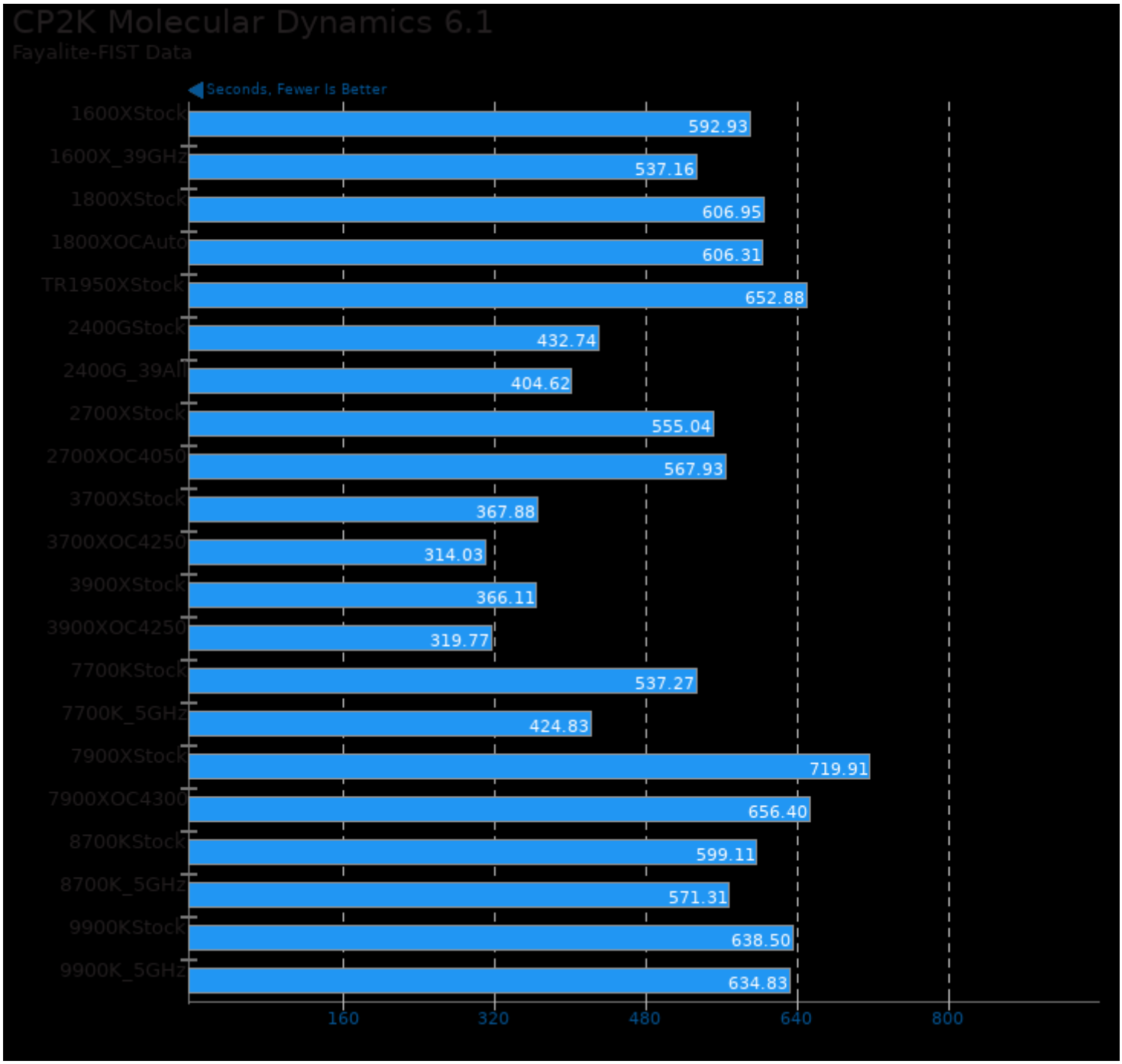

Timed PHP Compilation 7.1.9
Time To Compile
Seconds, Fewer Is Better
1600XStock
SE +/- 0.23, N = 3
74.02
1600X_39GHz
SE +/- 0.76, N = 3
68.77
1800XStock
SE +/- 0.23, N = 3
73.17
1800XOCAuto
SE +/- 0.44, N = 3
73.50
TR1950XStock
SE +/- 0.17, N = 3
59.86
2400GStock
SE +/- 0.10, N = 3
104.37
2400G_39AM
SE +/- 0.21, N = 3
99.79
2700XStock
SE +/- 0.24, N = 3
63.27
2700XOC4050
SE +/- 0.28, N = 3
64.39
3700XStock
SE +/- 0.28, N = 3
52.97
3700XOC4250
SE +/- 0.11, N = 3
45.12
3900XStock
SE +/- 0.08, N = 3
46.09
3900XOC4250
SE +/- 0.04, N = 3
40.20
7700KStock
SE +/- 0.20, N = 3
68.27
7700K_5GHz
SE +/- 0.01, N = 3
68.90
7900XStock
SE +/- 0.10, N = 3
50.23
7900XOC4300
SE +/- 0.04, N = 3
47.32
8700KStock
SE +/- 0.03, N = 3
52.55
8700K_5GHz
SE +/- 0.09, N = 3
53.92
9900KStock
SE +/- 0.08, N = 3
48.45
9900K_5GHz
SE +/- 0.08, N = 3
49.08
20
40
60
80
100
1. (CC) gcc options: -O2 -pedantic -ldl -lz -lm

xdacputestsep2019

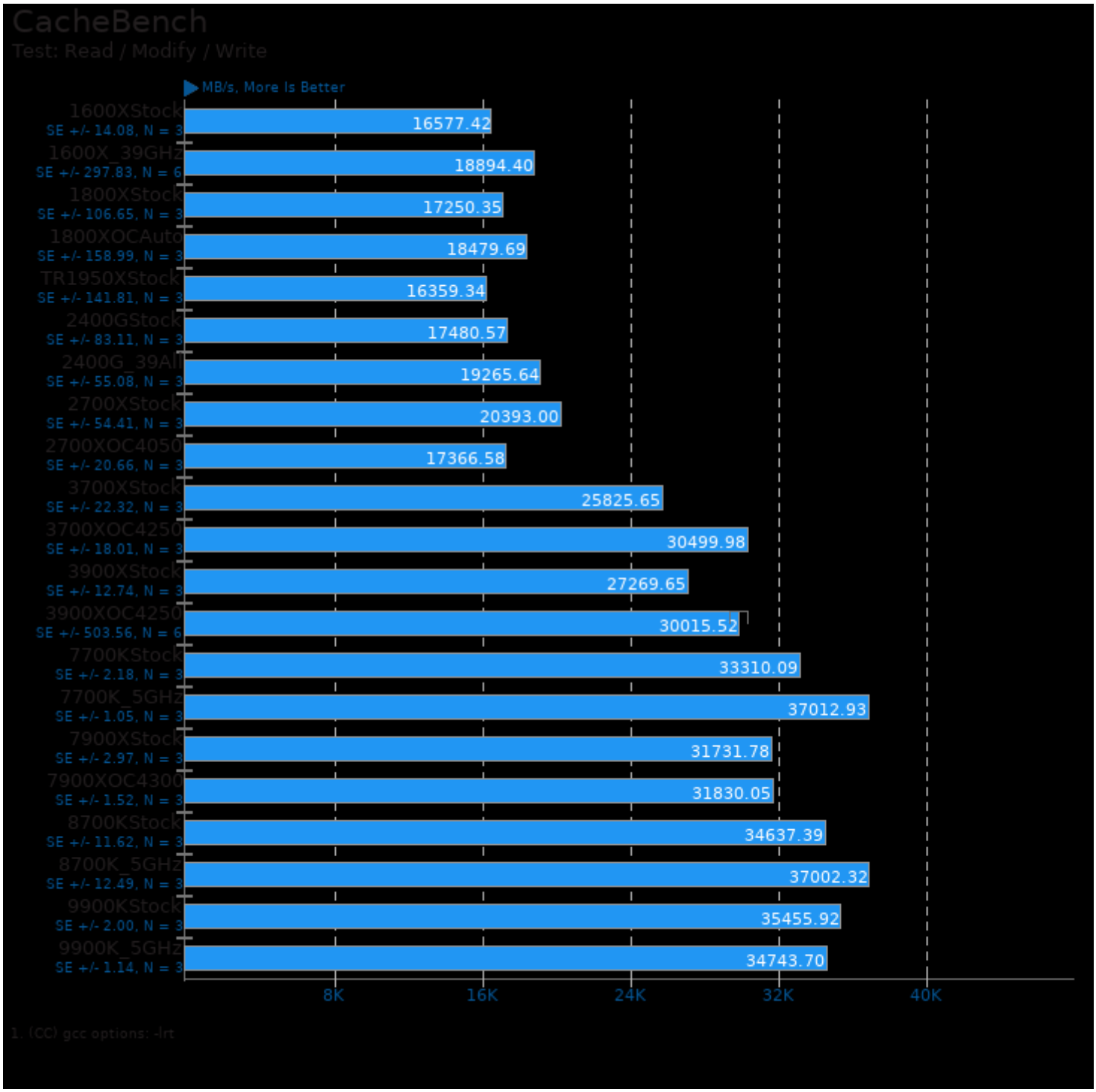



High Performance Conjugate Gradient 3.0
Phoronix Test Suite v5.2.1
GFLOP/s, More Is Better
1600XStock
SE +/- 0.01, N = 3
1.09
1600X_39GHz
SE +/- 0.01, N = 3
1.11
1800XStock
SE +/- 0.01, N = 3
1.08
1800XOCAuto
SE +/- 0.01, N = 3
1.11
TR1950XStock
SE +/- 0.00, N = 3
0.78
2400GStock
SE +/- 0.01, N = 3
1.05
2400G_39Alt
SE +/- 0.01, N = 3
1.06
2700XStock
SE +/- 0.01, N = 3
0.99
2700XOC4050
SE +/- 0.01, N = 3
1.20
3700XStock
SE +/- 0.01, N = 3
0.97
3700XOC4250
SE +/- 0.00, N = 3
1.01
3900XStock
SE +/- 0.01, N = 3
0.83
3900XOC4250
SE +/- 0.01, N = 3
1.01
7700KStock
SE +/- 0.00, N = 3
1.78
7700K_5GHz
SE +/- 0.01, N = 3
1.83
7900XStock
SE +/- 0.00, N = 3
1.44
7900XOC4300
SE +/- 0.01, N = 3
1.48
8700KStock
SE +/- 0.02, N = 3
1.73
8700K_5GHz
SE +/- 0.01, N = 3
1.83
9900KStock
SE +/- 0.01, N = 3
1.72
9900K_5GHz
SE +/- 0.01, N = 3
1.73
0.4118
0.8236
1.2354
1.6472
2.059

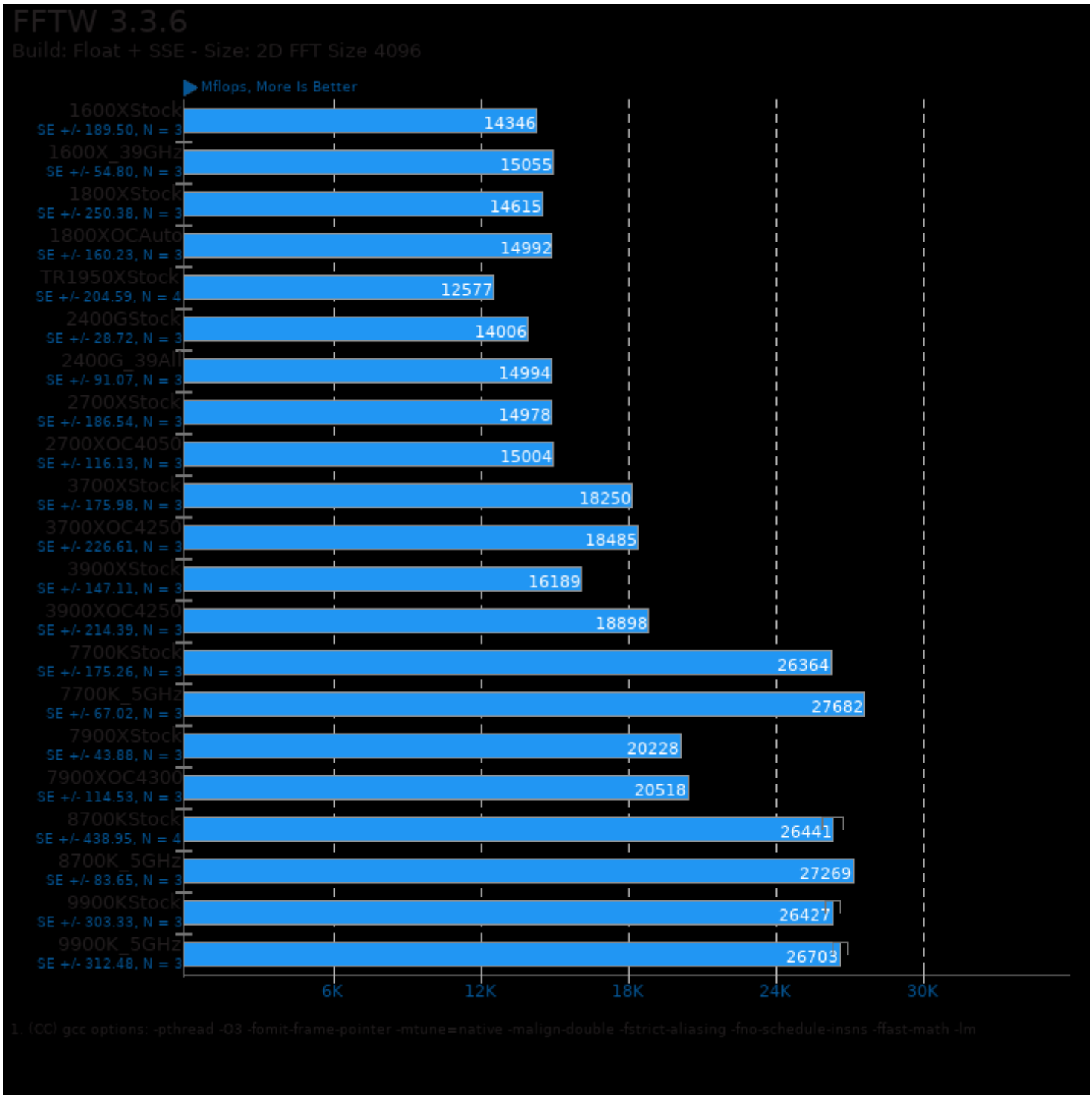
xdacputestsep2019



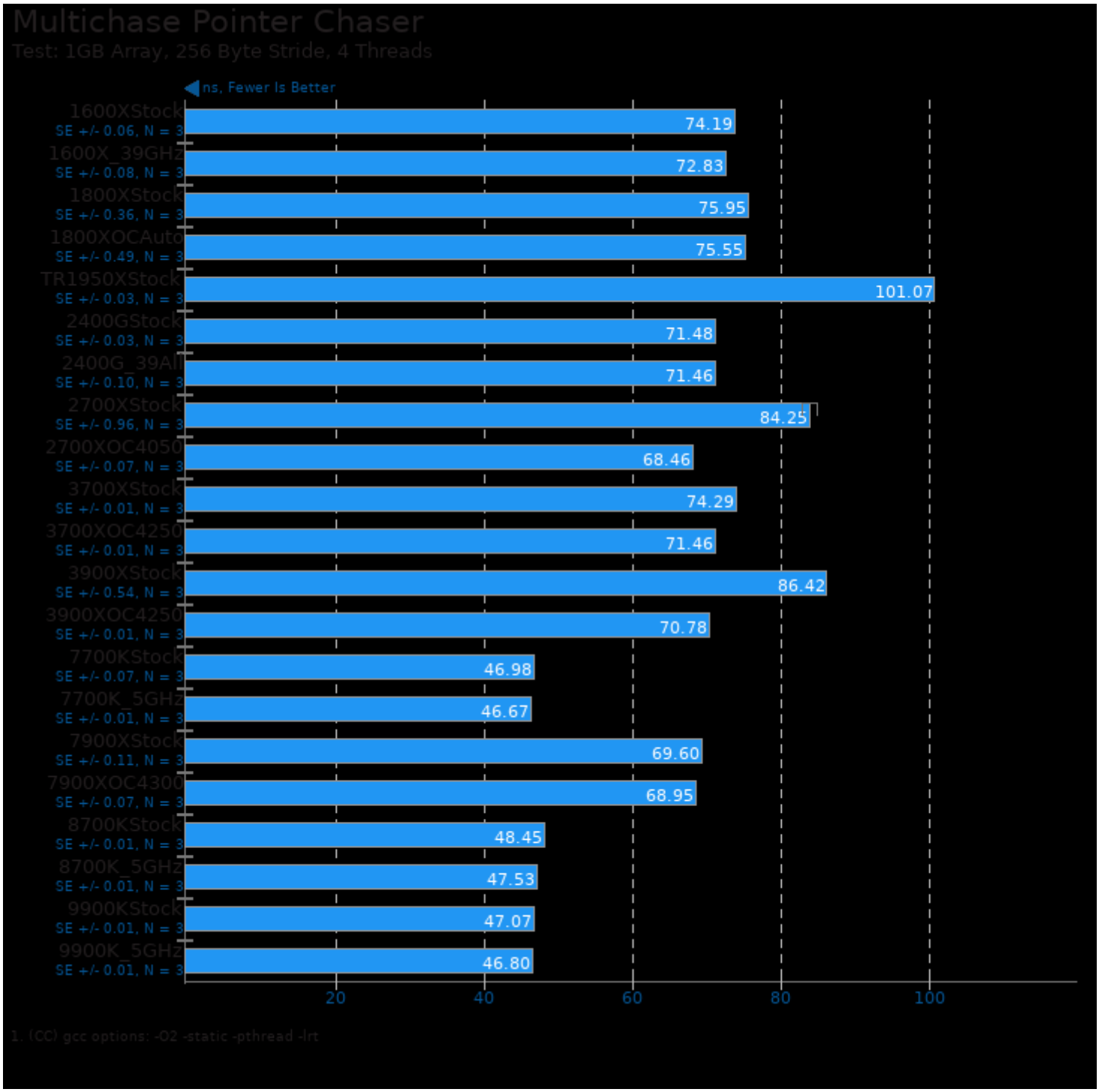
xdacputestsep2019



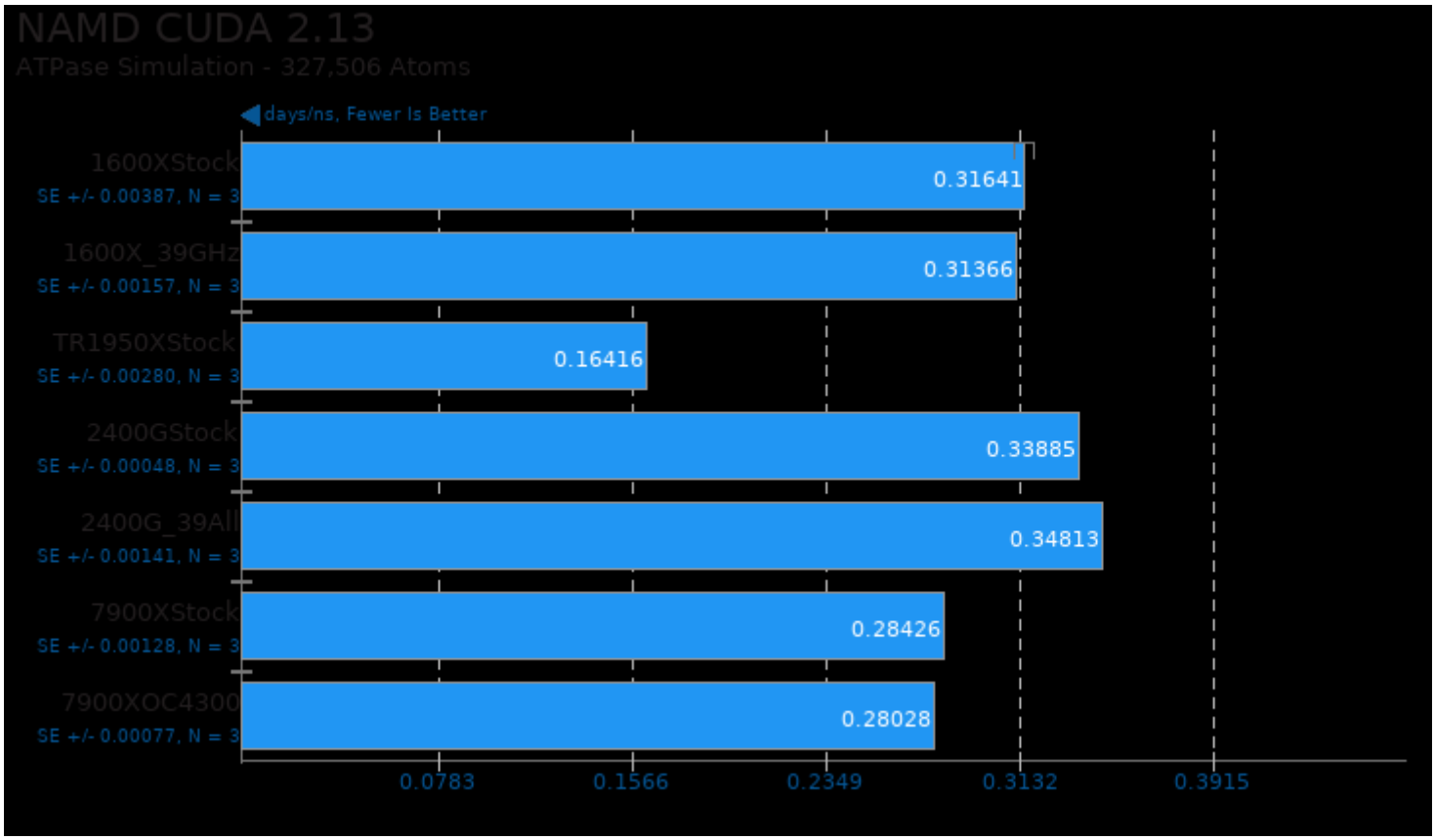
xdacputestsep2019



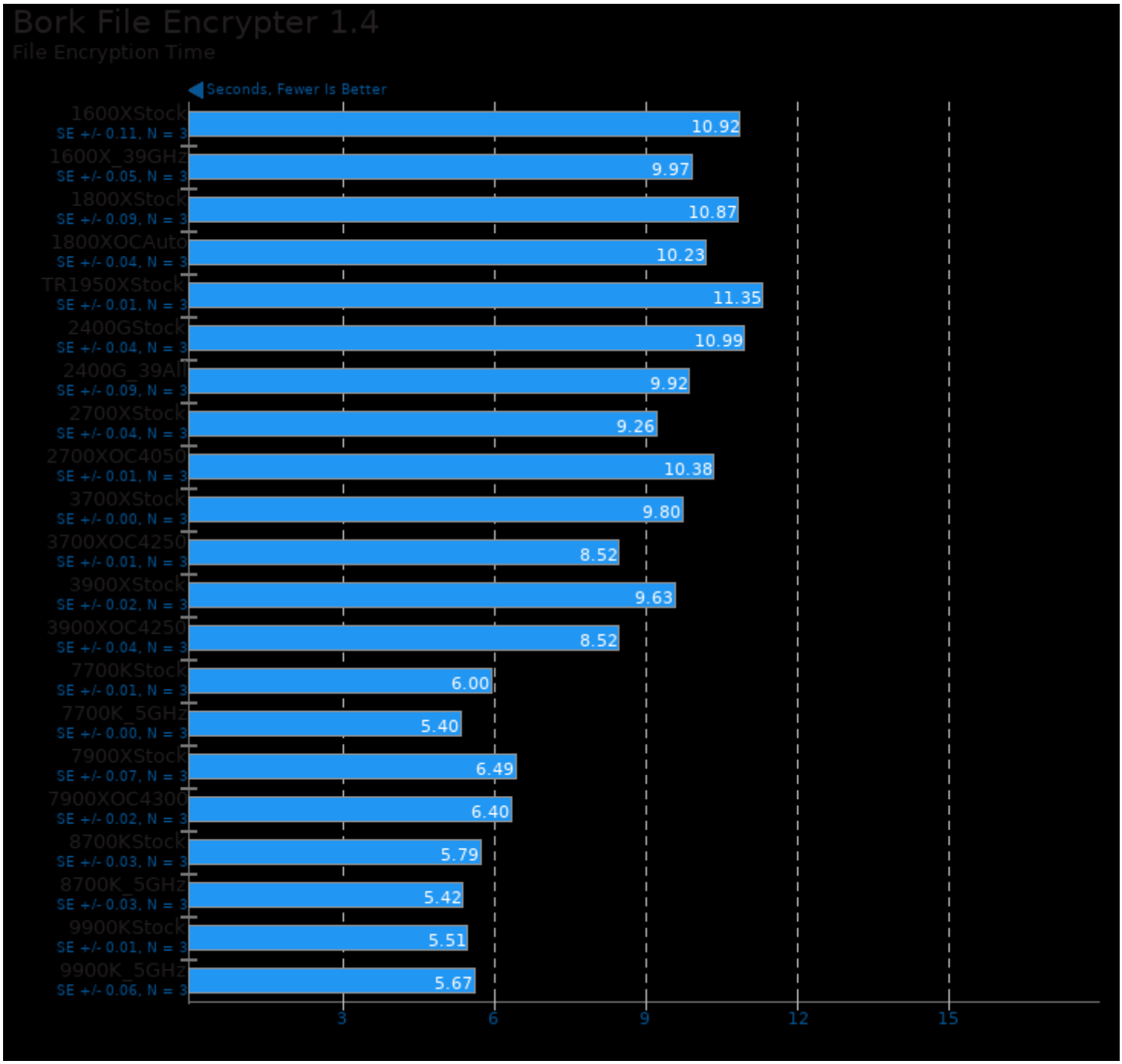
xdacputestsep2019



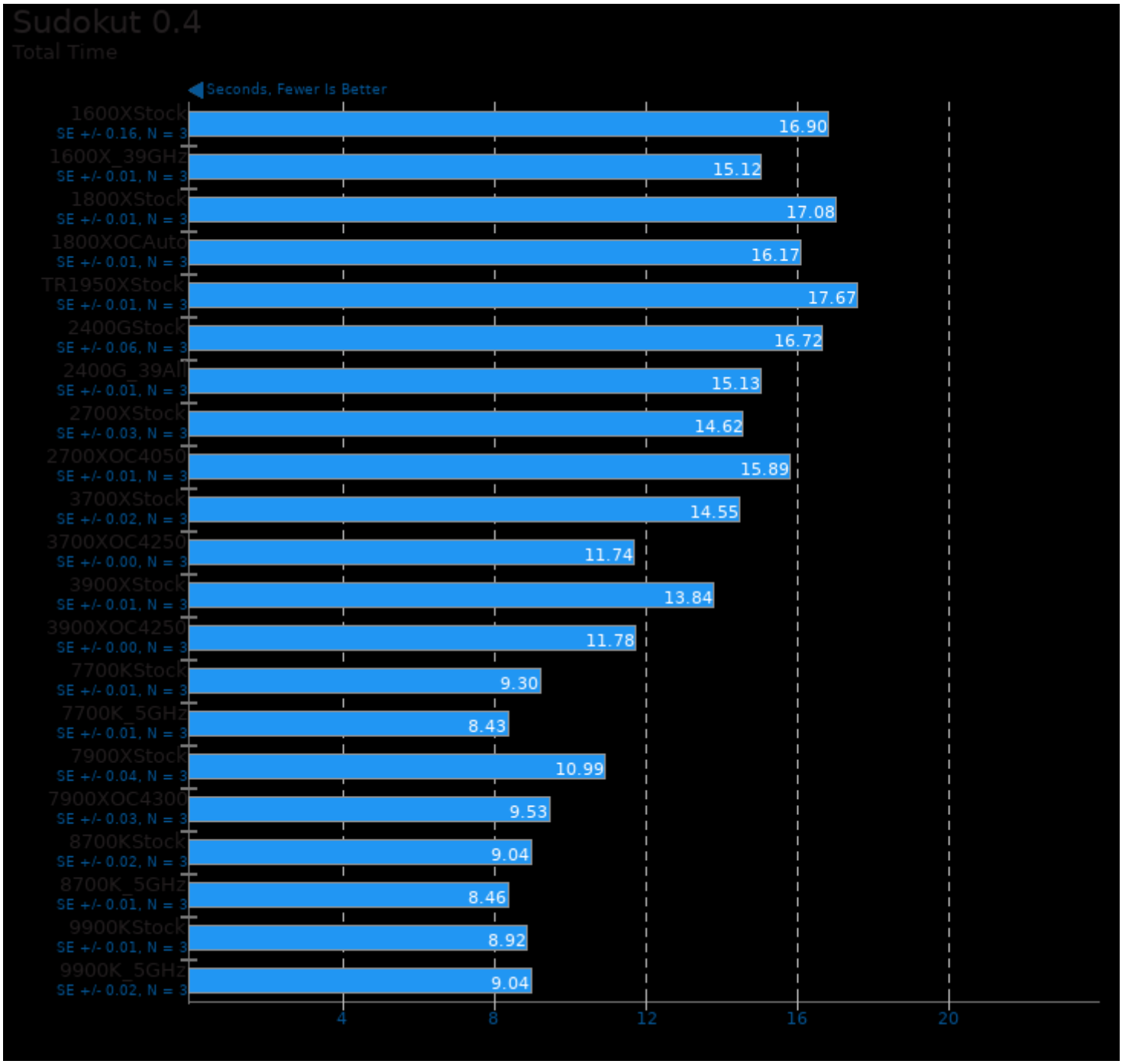
xdacputestsep2019



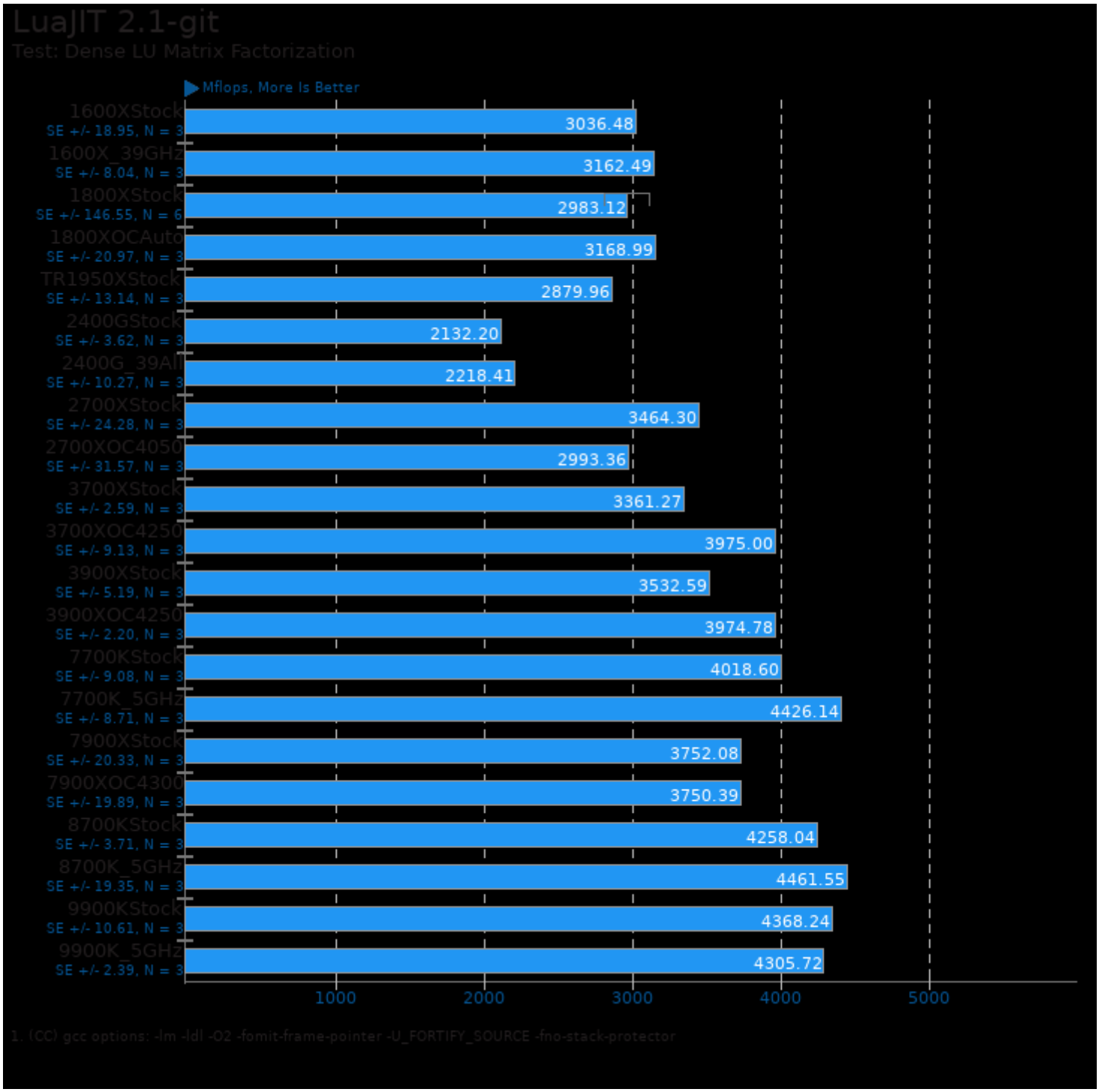
xdacputestsep2019

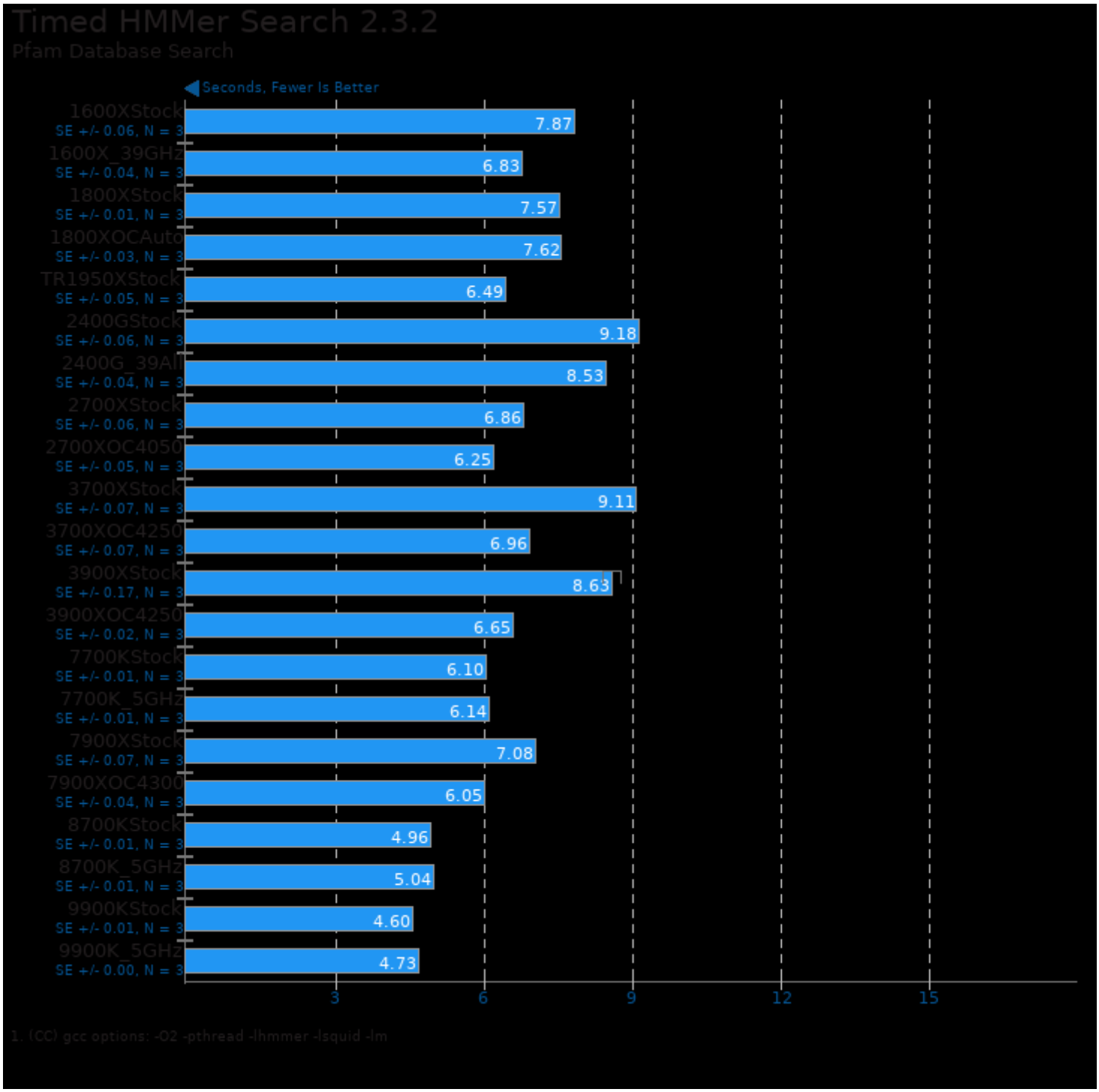


xdacputestsep2019

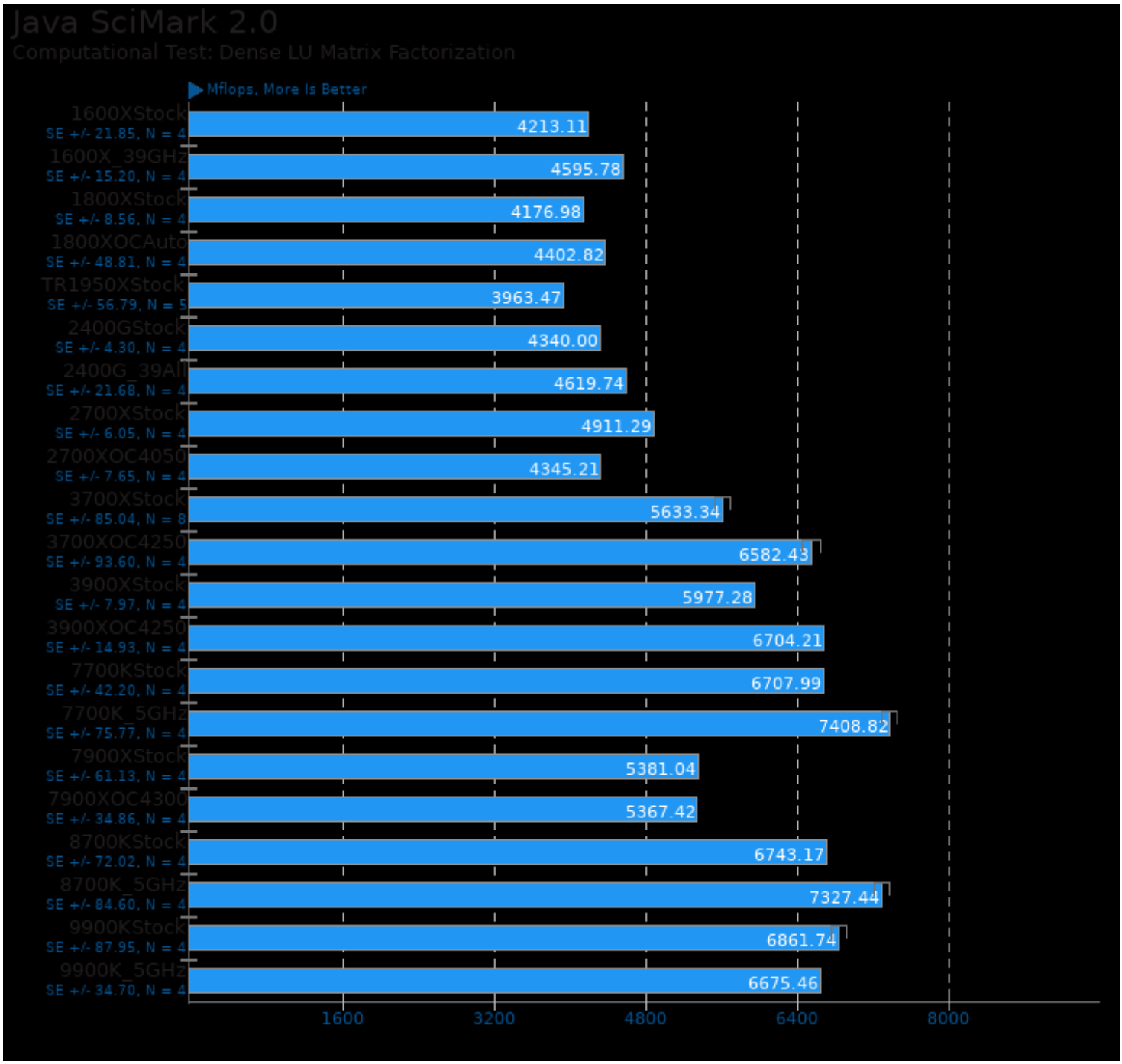


xdacputestsep2019

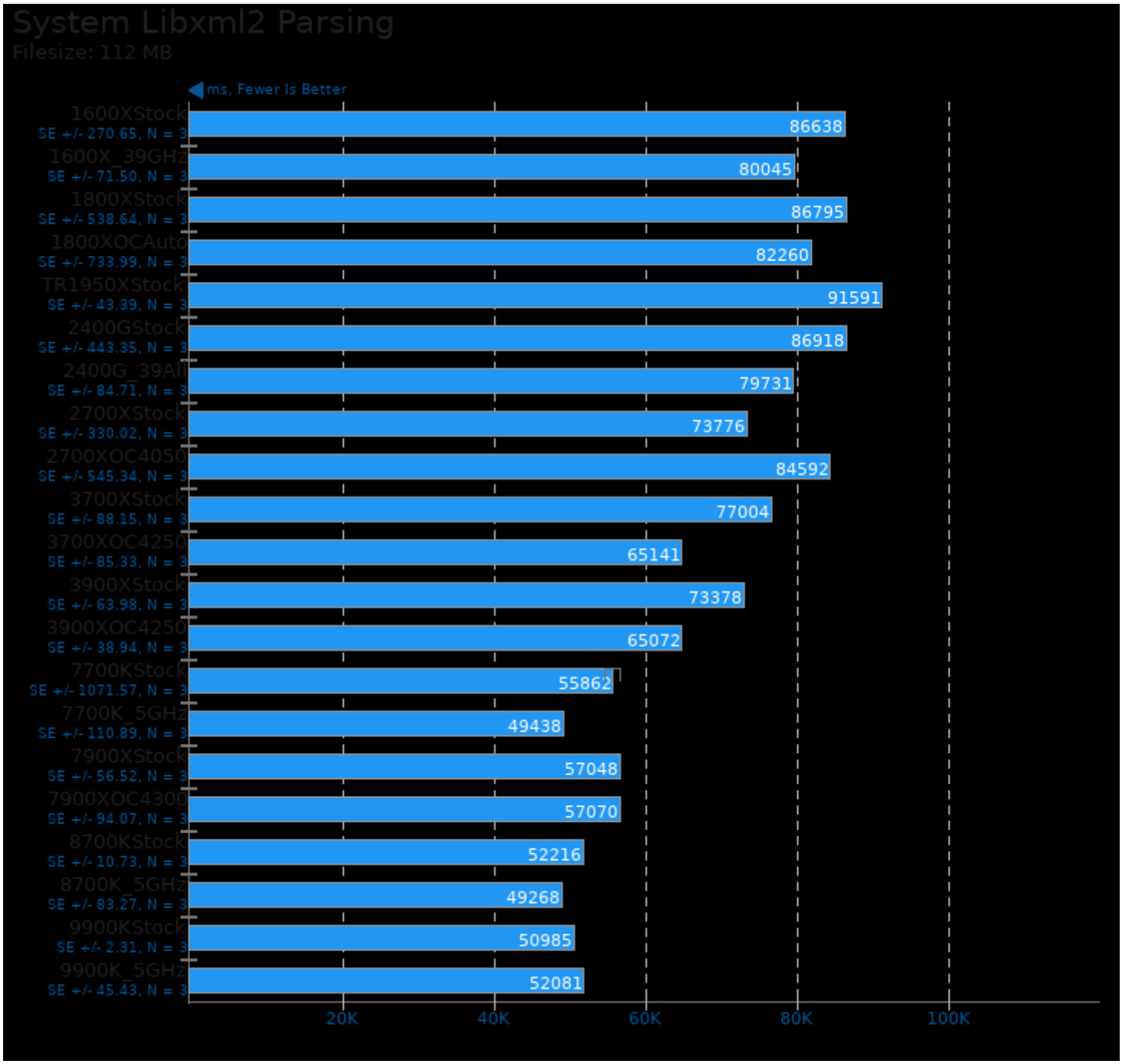


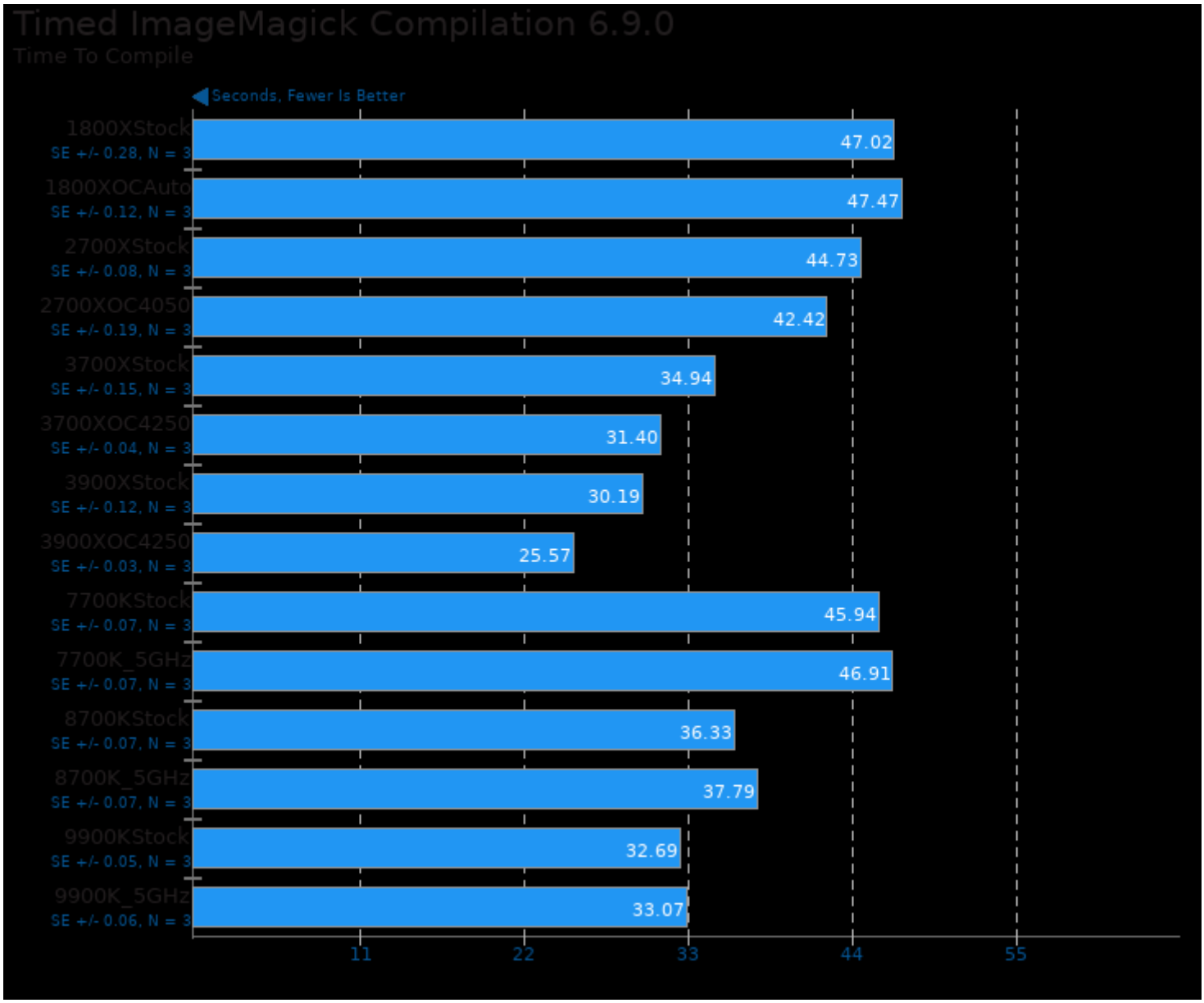

Timed HMMer Search 2.3.2
Pfam Database Search
Seconds, Fewer Is Better
1600XStock
SE +/- 0.06, N = 3
7.87
1600X_39GHz
SE +/- 0.04, N = 3
6.83
1800XStock
SE +/- 0.01, N = 3
7.57
1800XOCAuto
SE +/- 0.03, N = 3
7.62
TR1950XStock
SE +/- 0.05, N = 3
6.49
2400GStock
SE +/- 0.06, N = 3
9.18
2400G_39AM
SE +/- 0.04, N = 3
8.53
2700XStock
SE +/- 0.06, N = 3
6.86
2700XOC4050
SE +/- 0.05, N = 3
6.25
3700XStock
SE +/- 0.07, N = 3
9.11
3700XOC4250
SE +/- 0.07, N = 3
6.96
3900XStock
SE +/- 0.17, N = 3
8.63
3900XOC4250
SE +/- 0.02, N = 3
6.65
7700KStock
SE +/- 0.01, N = 3
6.10
7700K_5GHz
SE +/- 0.01, N = 3
6.14
7900XStock
SE +/- 0.07, N = 3
7.08
7900XOC4300
SE +/- 0.04, N = 3
6.05
8700KStock
SE +/- 0.01, N = 3
4.96
8700K_5GHz
SE +/- 0.01, N = 3
5.04
9900KStock
SE +/- 0.01, N = 3
4.60
9900K_5GHz
SE +/- 0.00, N = 3
4.73
3
6
9
12
15
1. (CC) gcc options: -O2 -pthread -lhmmer -lsquid -lm

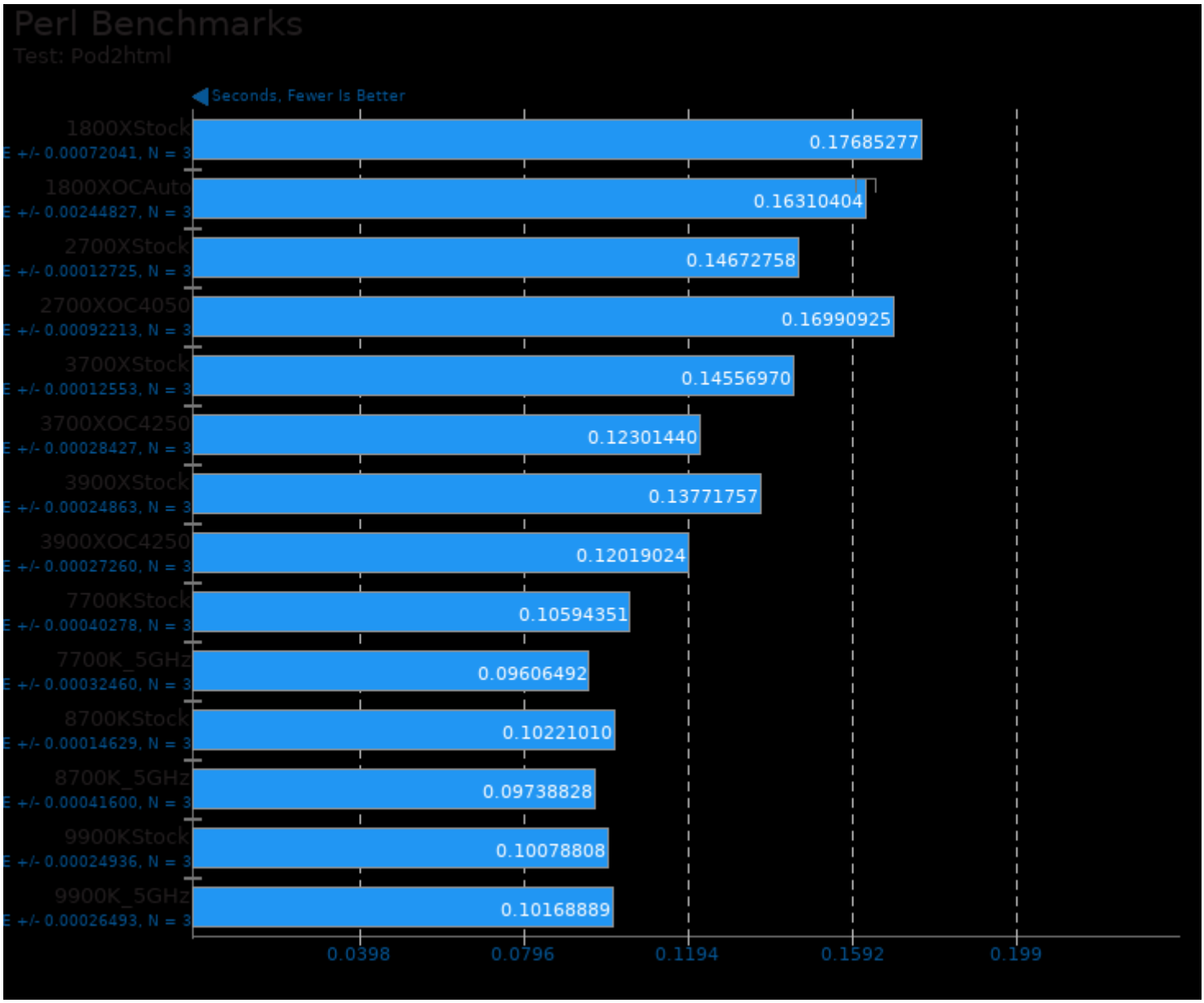
xdacputestsep2019



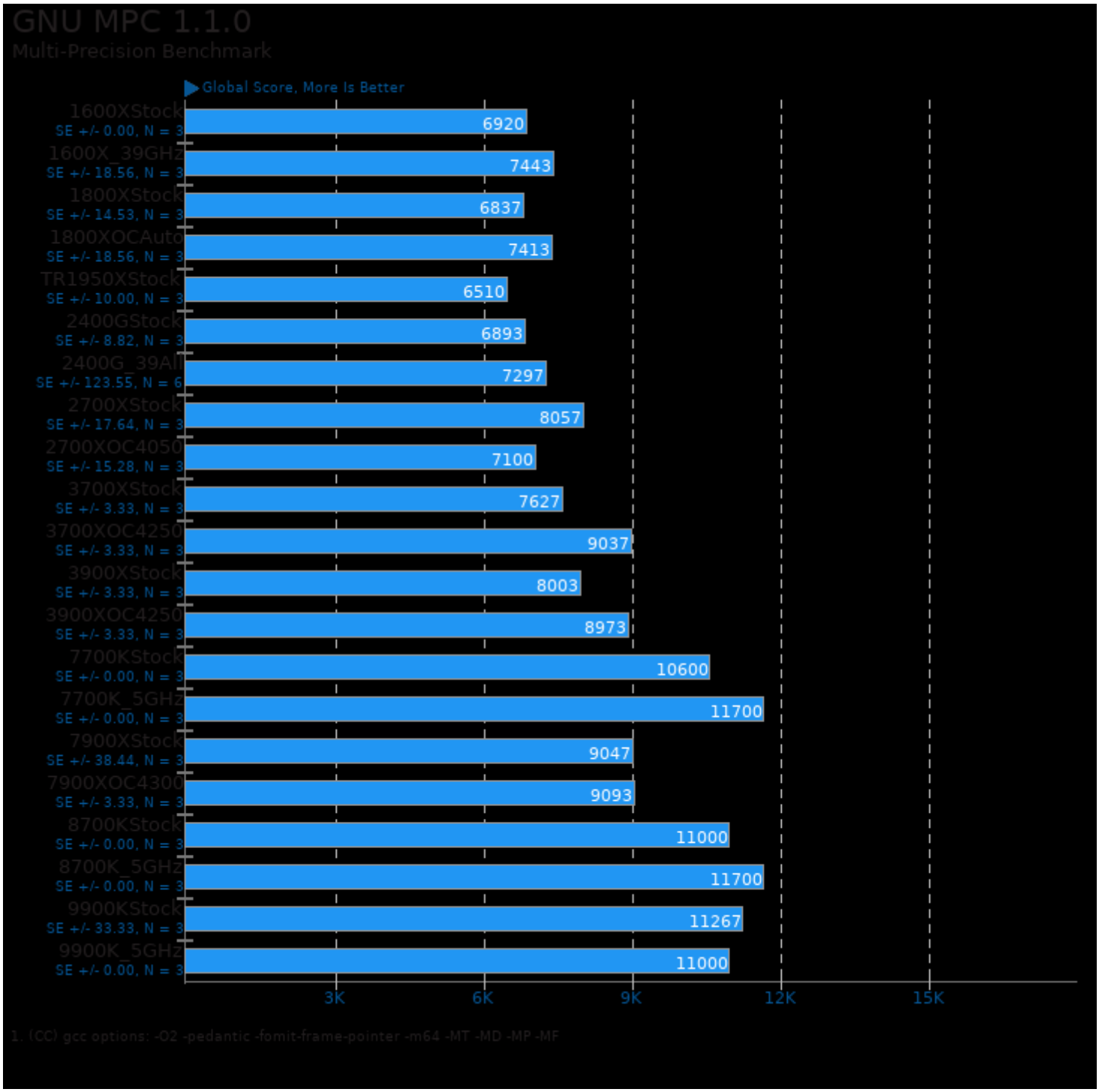
xdacputestsep2019



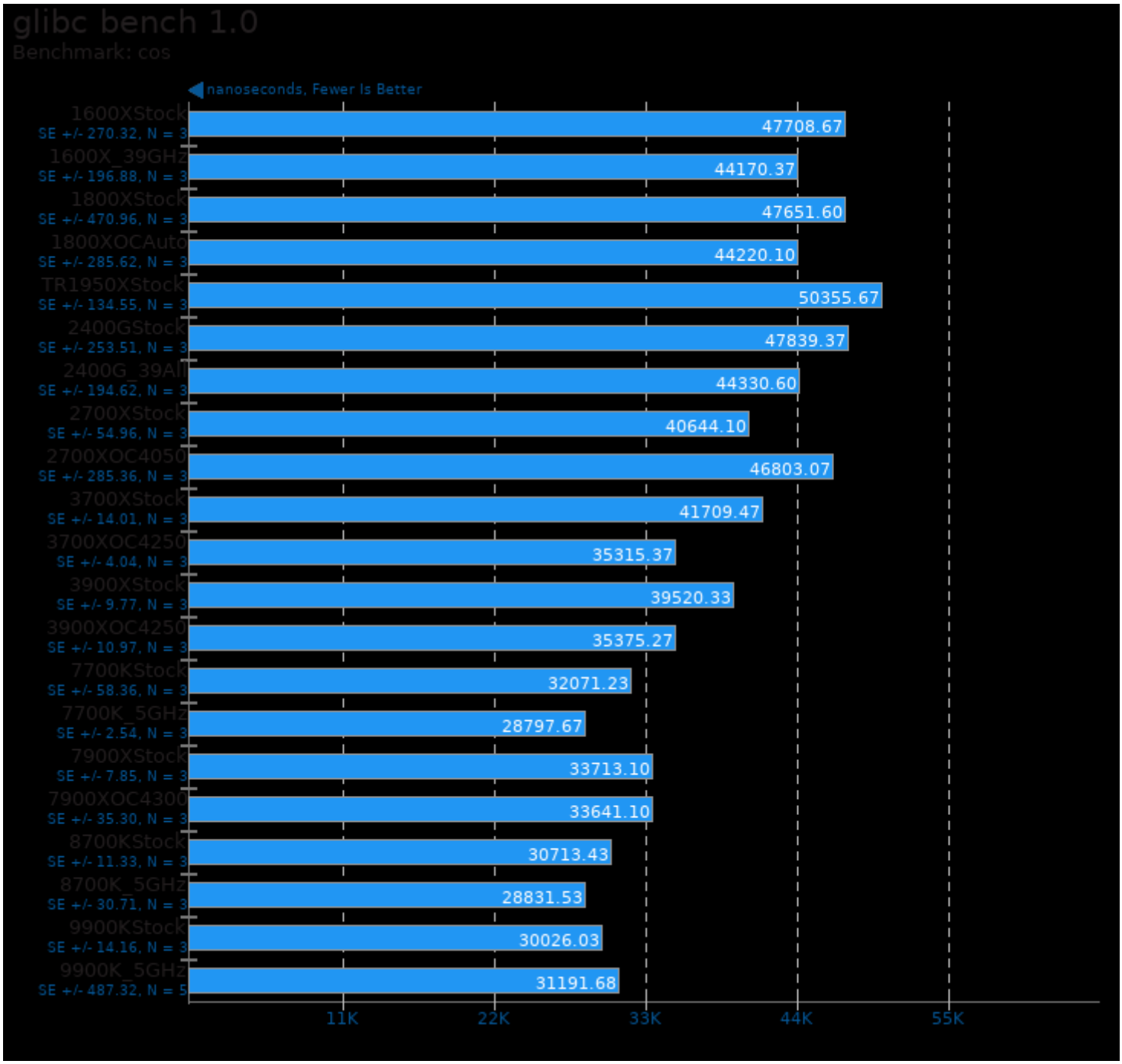

Timed ImageMagick Compilation 6.9.0
Time To Compile
Seconds, Fewer Is Better
1800XStock
SE +/- 0.28, N = 3
47.02
1800XOCAuto
SE +/- 0.12, N = 3
47.47
2700XStock
SE +/- 0.08, N = 3
44.73
2700XOC4050
SE +/- 0.19, N = 3
42.42
3700XStock
SE +/- 0.15, N = 3
34.94
3700XOC4250
SE +/- 0.04, N = 3
31.40
3900XStock
SE +/- 0.12, N = 3
30.19
3900XOC4250
SE +/- 0.03, N = 3
25.57
7700KStock
SE +/- 0.07, N = 3
45.94
7700K_5GHz
SE +/- 0.07, N = 3
46.91
8700KStock
SE +/- 0.07, N = 3
36.33
8700K_5GHz
SE +/- 0.07, N = 3
37.79
9900KStock
SE +/- 0.05, N = 3
32.69
9900K_5GHz
SE +/- 0.06, N = 3
33.07
11
22
33
44
55


Perl Benchmarks
Test: Pod2html
Seconds, Fewer Is Better
1800XStock
E +/- 0.00072041, N = 3
0.17685277
1800XOCAuto
E +/- 0.00244827, N = 3
0.16310404
2700XStock
E +/- 0.00012725, N = 3
0.14672758
2700XOC4050
E +/- 0.00092213, N = 3
0.16990925
3700XStock
E +/- 0.00012553, N = 3
0.14556970
3700XOC4250
E +/- 0.00028427, N = 3
0.12301440
3900XStock
E +/- 0.00024863, N = 3
0.13771757
3900XOC4250
E +/- 0.00027260, N = 3
0.12019024
7700KStock
E +/- 0.00040278, N = 3
0.10594351
7700K_5GHz
E +/- 0.00032460, N = 3
0.09606492
8700KStock
E +/- 0.00014629, N = 3
0.10221010
8700K_5GHz
E +/- 0.00041600, N = 3
0.09738828
9900KStock
E +/- 0.00024936, N = 3
0.10078808
9900K_5GHz
E +/- 0.00026493, N = 3
0.10168889
0.0398
0.0796
0.1194
0.1592
0.199

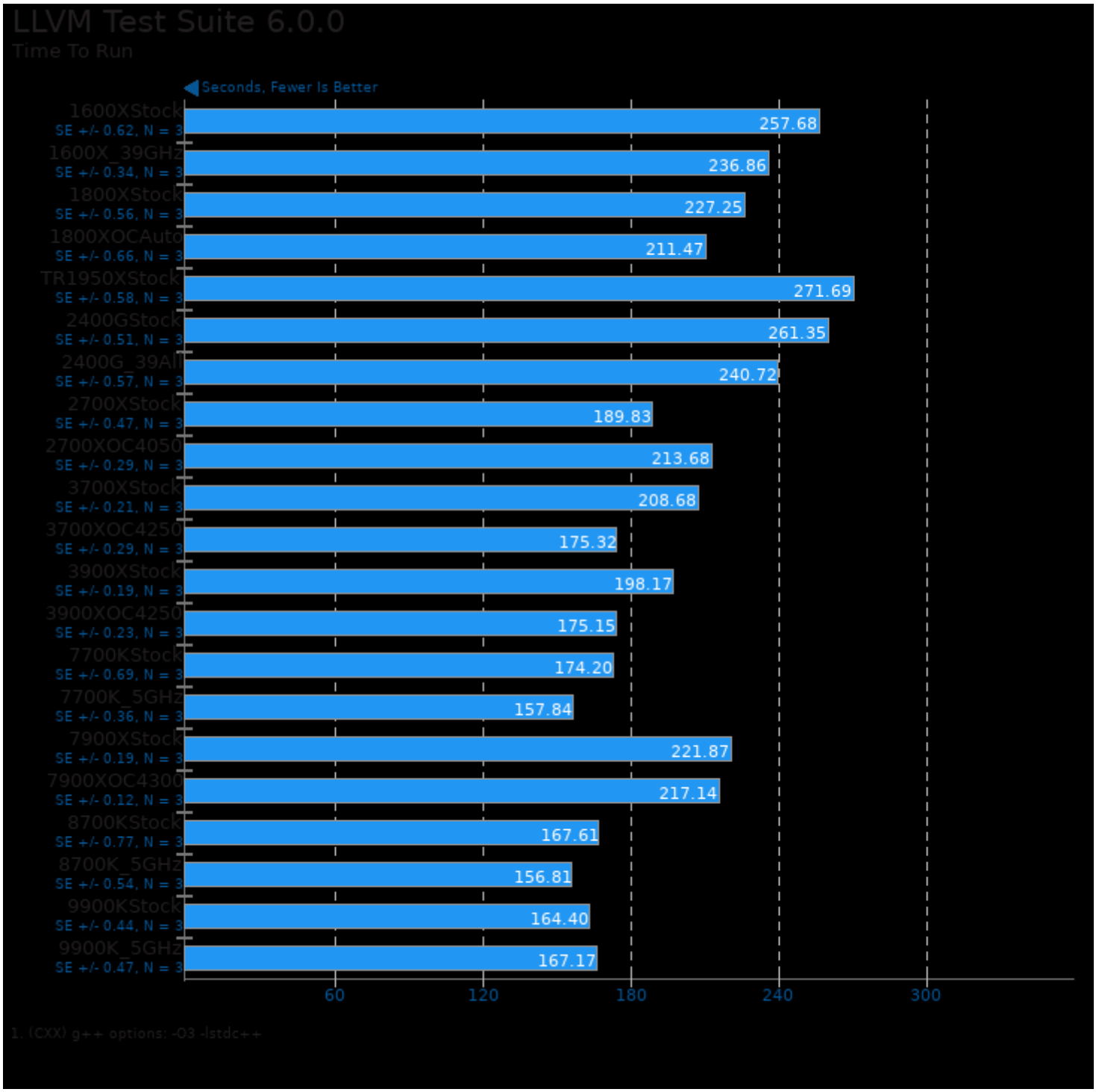
xdacputestsep2019



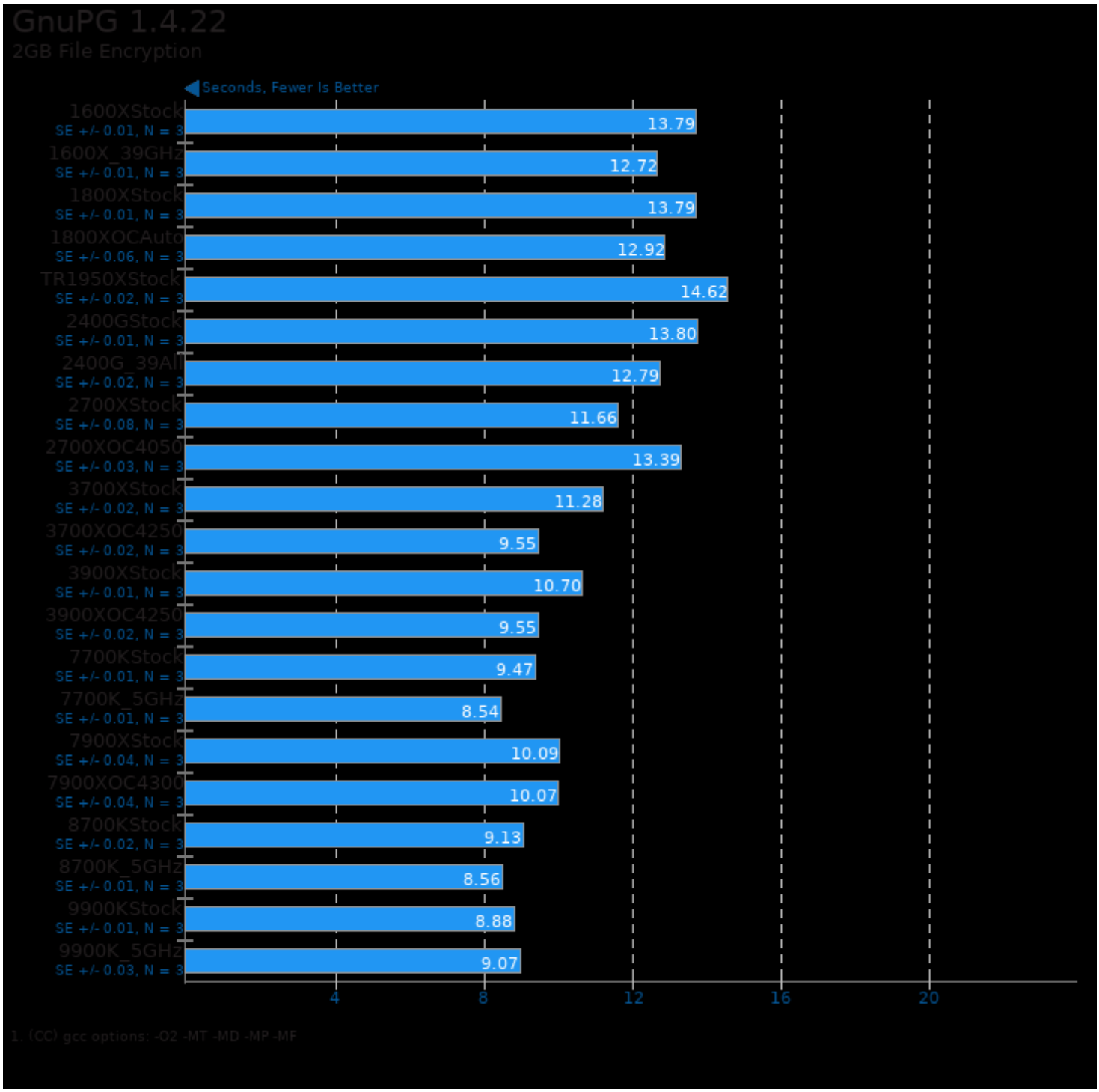
xdacputestsep2019



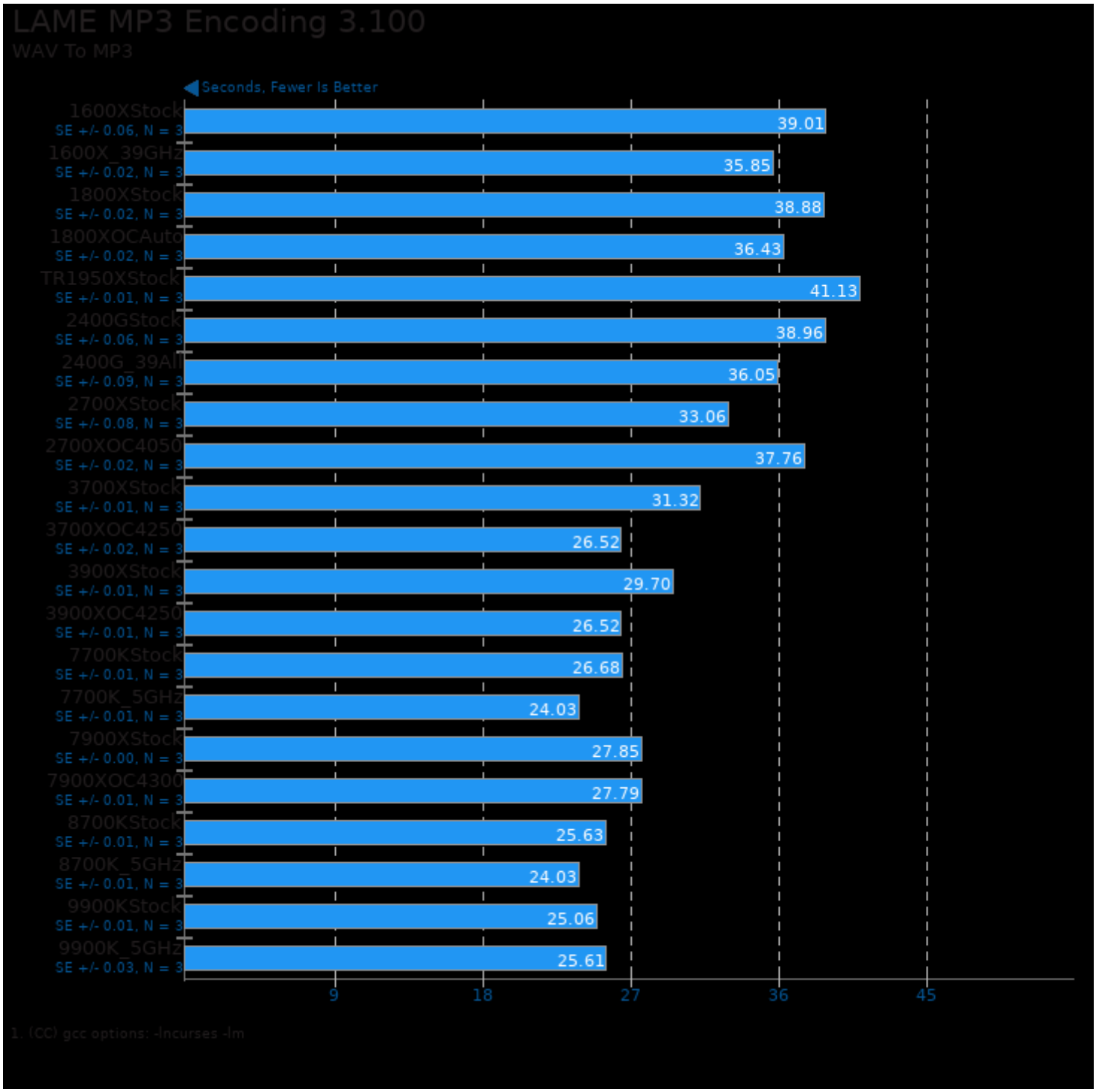
xdacputestsep2019



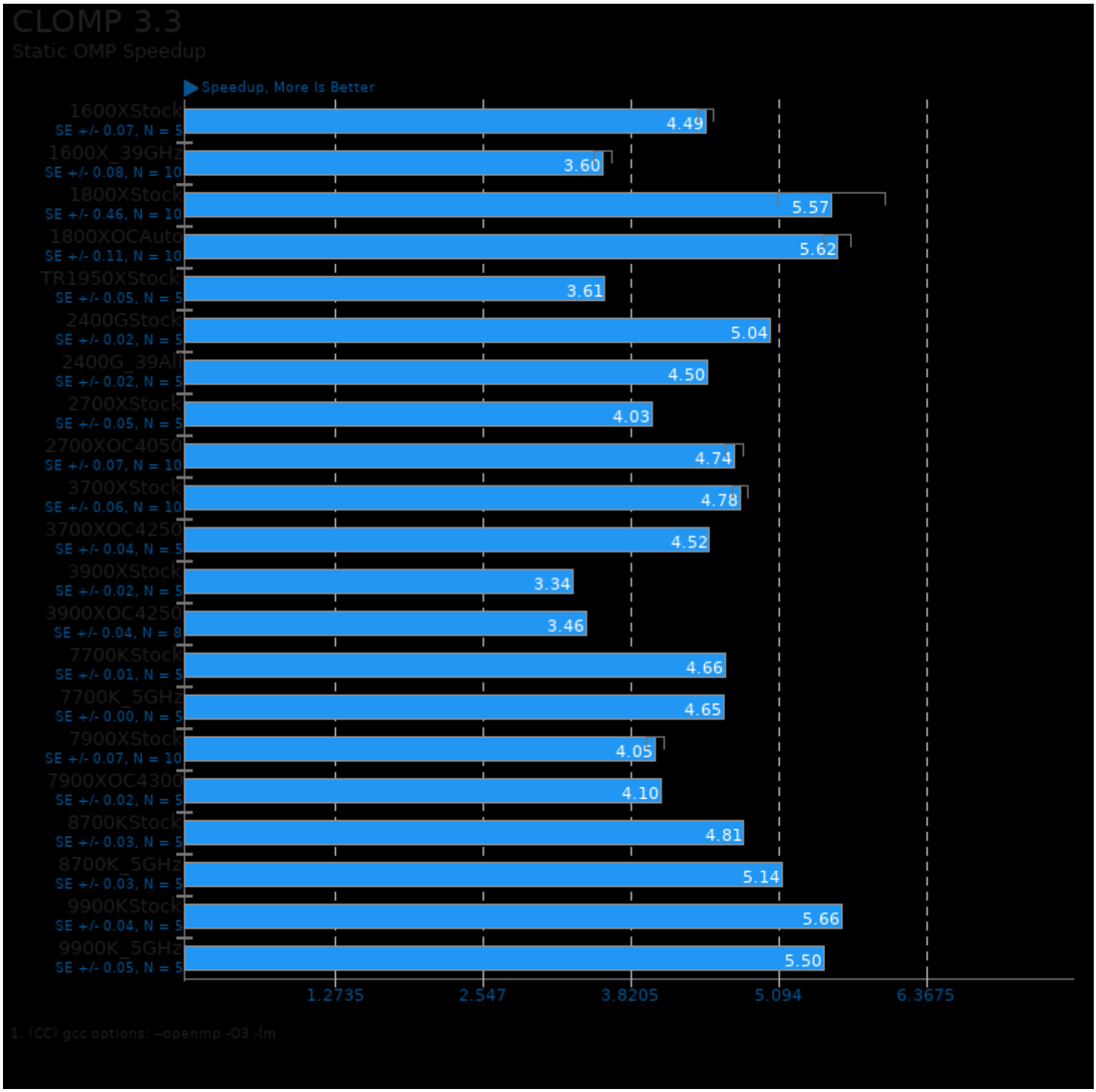
xdacputestsep2019



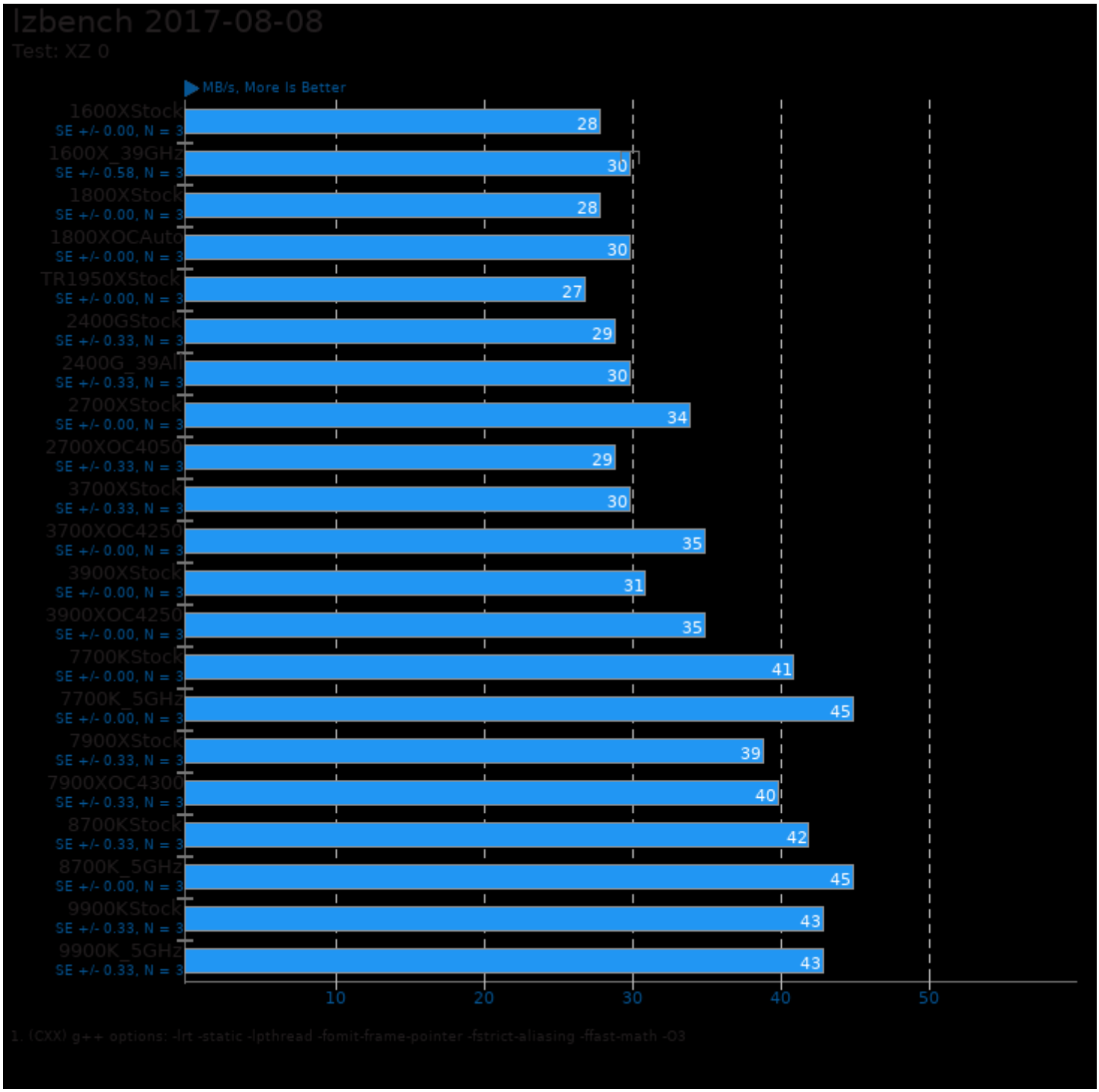
xdacputestsep2019



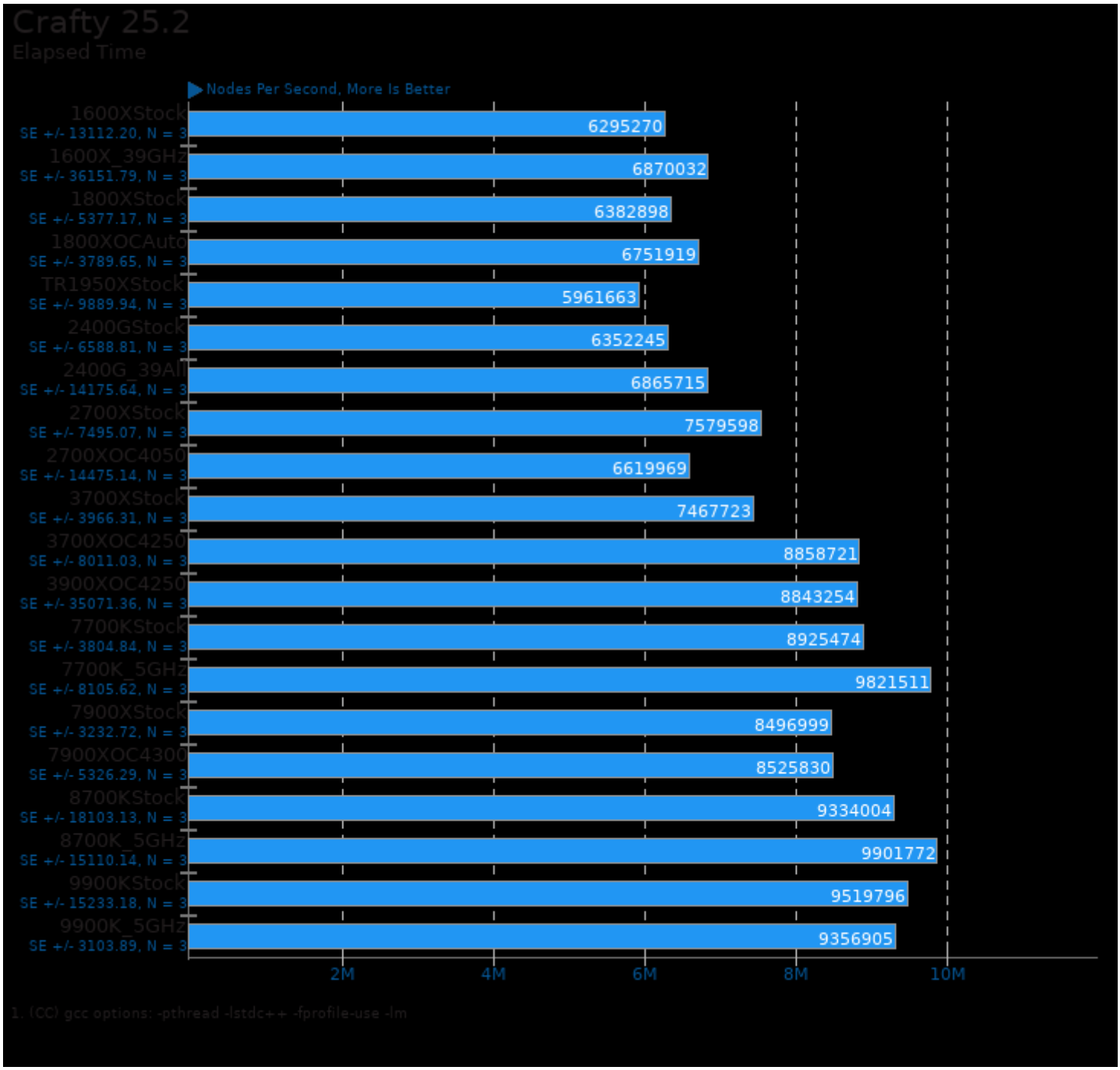
xdacputestsep2019



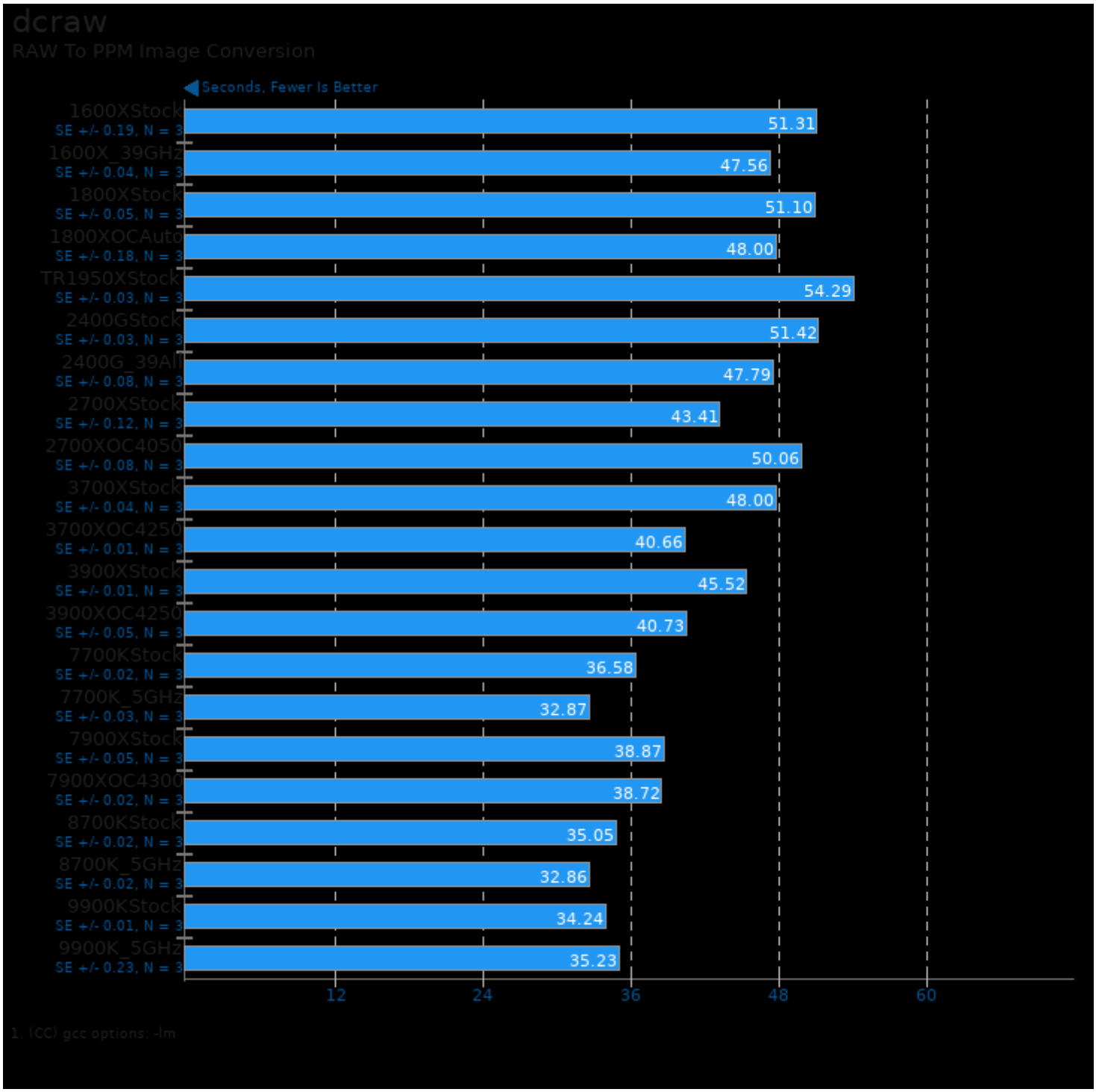
xdacputestsep2019

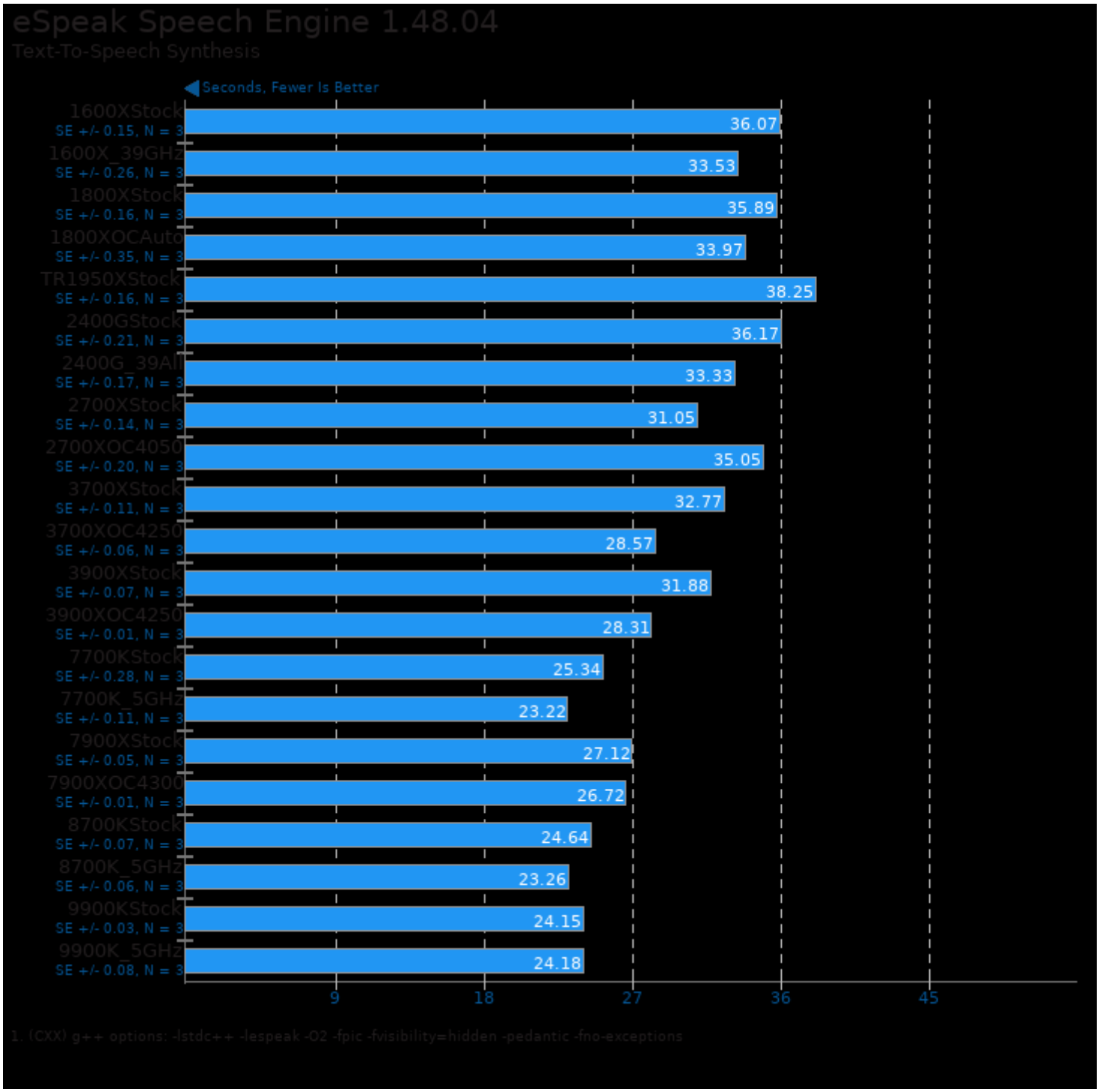


xdacputestsep2019

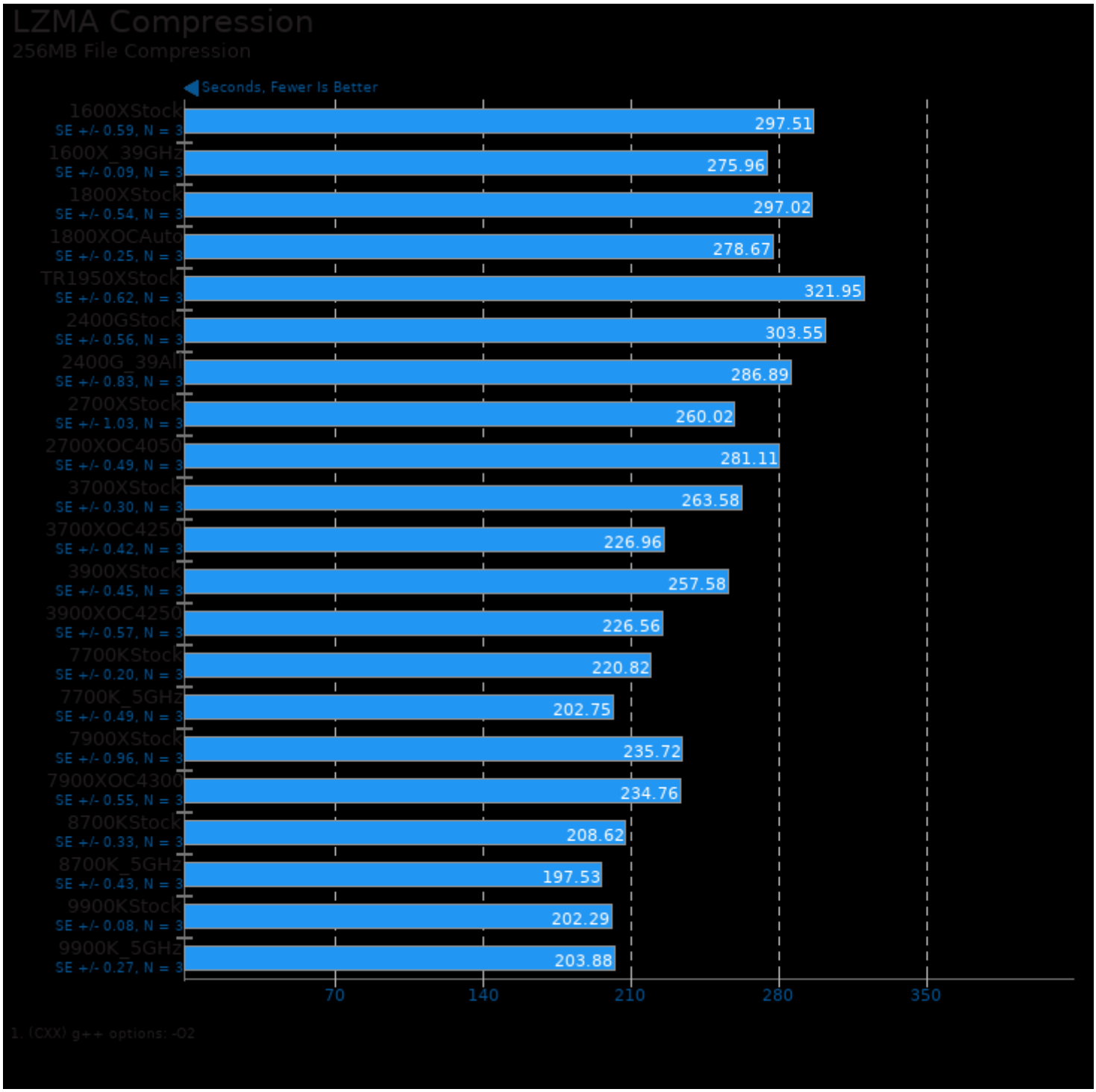


xdacputestsep2019

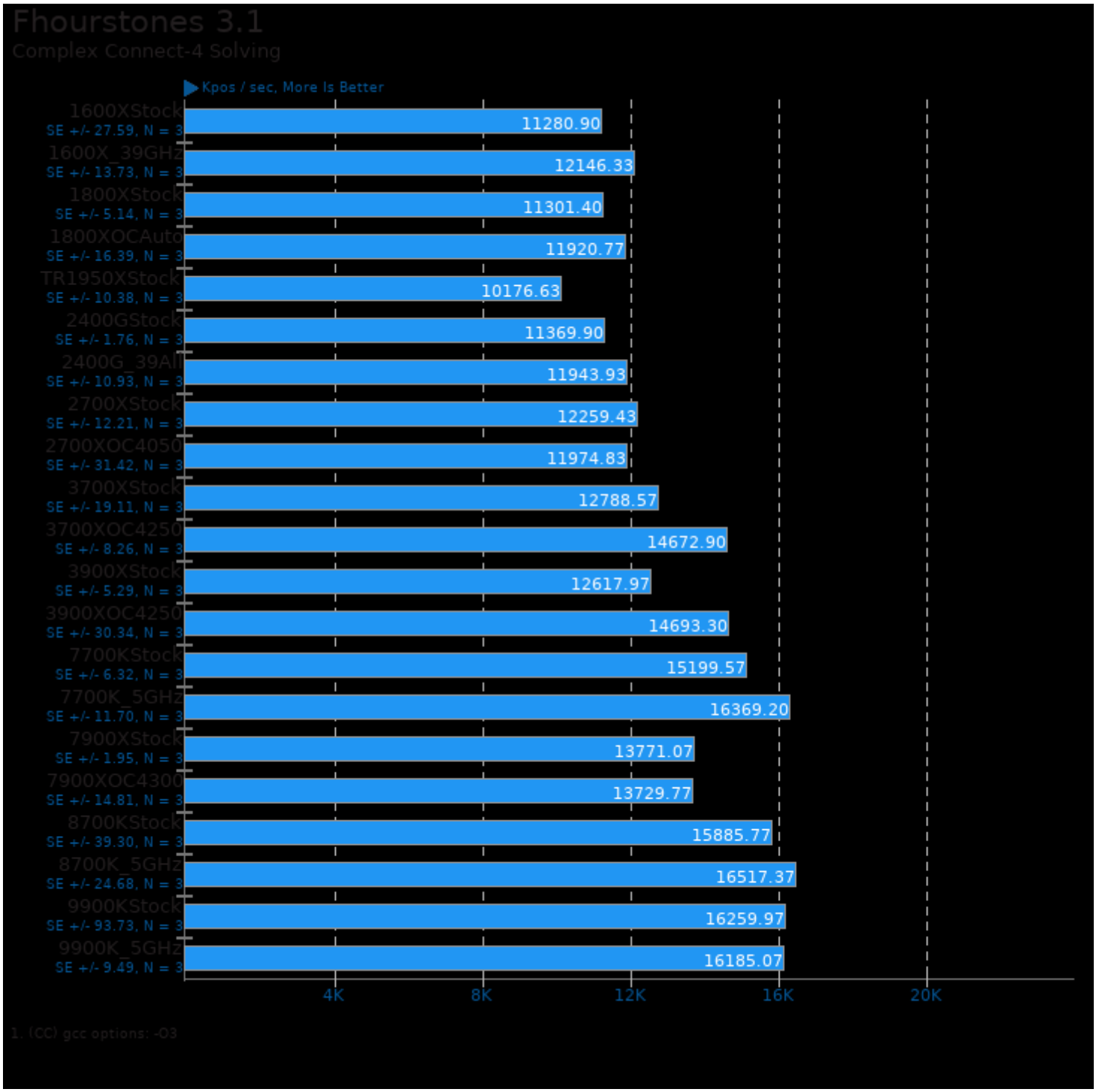


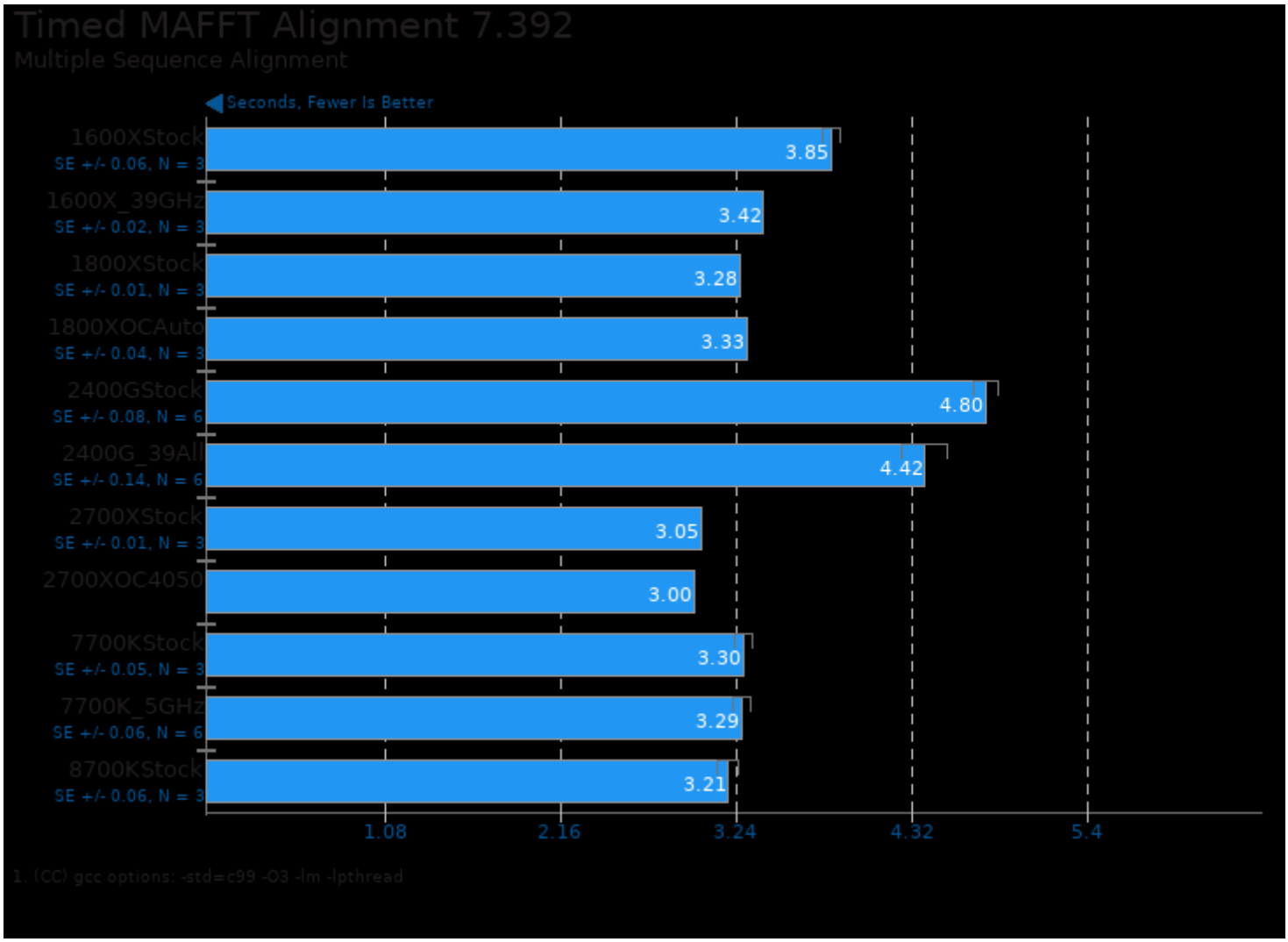

eSpeak Speech Engine 1.48.04
Text-To-Speech Synthesis
Seconds, Fewer Is Better
1600XStock
SE +/- 0.15, N = 3
36.07
1600X_39GHz
SE +/- 0.26, N = 3
33.53
1800XStock
SE +/- 0.16, N = 3
35.89
1800XOCAuto
SE +/- 0.35, N = 3
33.97
TR1950XStock
SE +/- 0.16, N = 3
38.25
2400GStock
SE +/- 0.21, N = 3
36.17
2400G_39Al
SE +/- 0.17, N = 3
33.33
2700XStock
SE +/- 0.14, N = 3
31.05
2700XOC4050
SE +/- 0.20, N = 3
35.05
3700XStock
SE +/- 0.11, N = 3
32.77
3700XOC4250
SE +/- 0.06, N = 3
28.57
3900XStock
SE +/- 0.07, N = 3
31.88
3900XOC4250
SE +/- 0.01, N = 3
28.31
7700KStock
SE +/- 0.28, N = 3
25.34
7700K_5GHz
SE +/- 0.11, N = 3
23.22
7900XStock
SE +/- 0.05, N = 3
27.12
7900XOC4300
SE +/- 0.01, N = 3
26.72
8700KStock
SE +/- 0.07, N = 3
24.64
8700K_5GHz
SE +/- 0.06, N = 3
23.26
9900KStock
SE +/- 0.03, N = 3
24.15
9900K_5GHz
SE +/- 0.08, N = 3
24.18
9
18
27
36
45
1. (CXX) g++ options: -lstdc++ -lespeak -O2 -fpic -fvisibility=hidden -pedantic -fno-exceptions

xdacputestsep2019

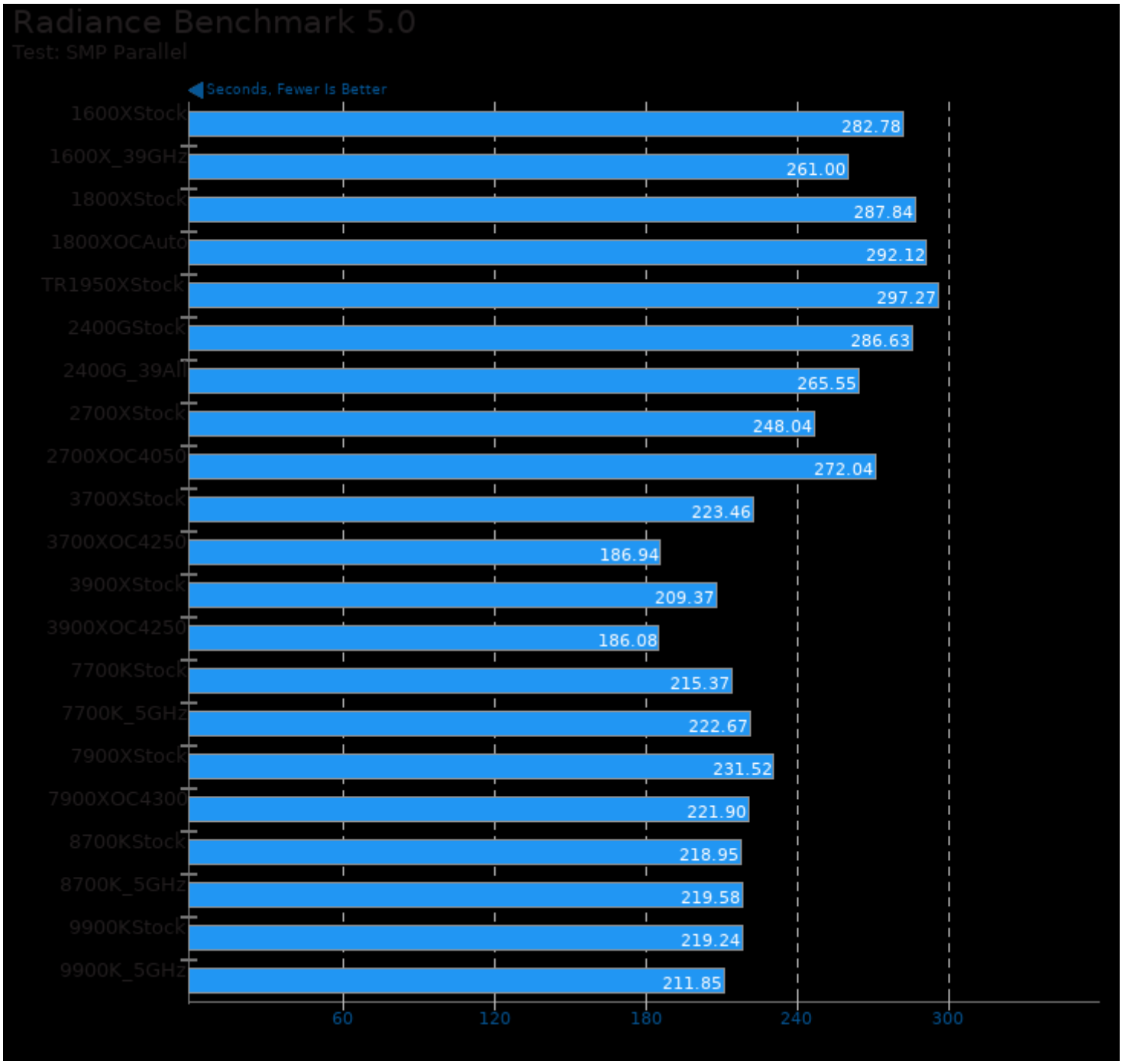


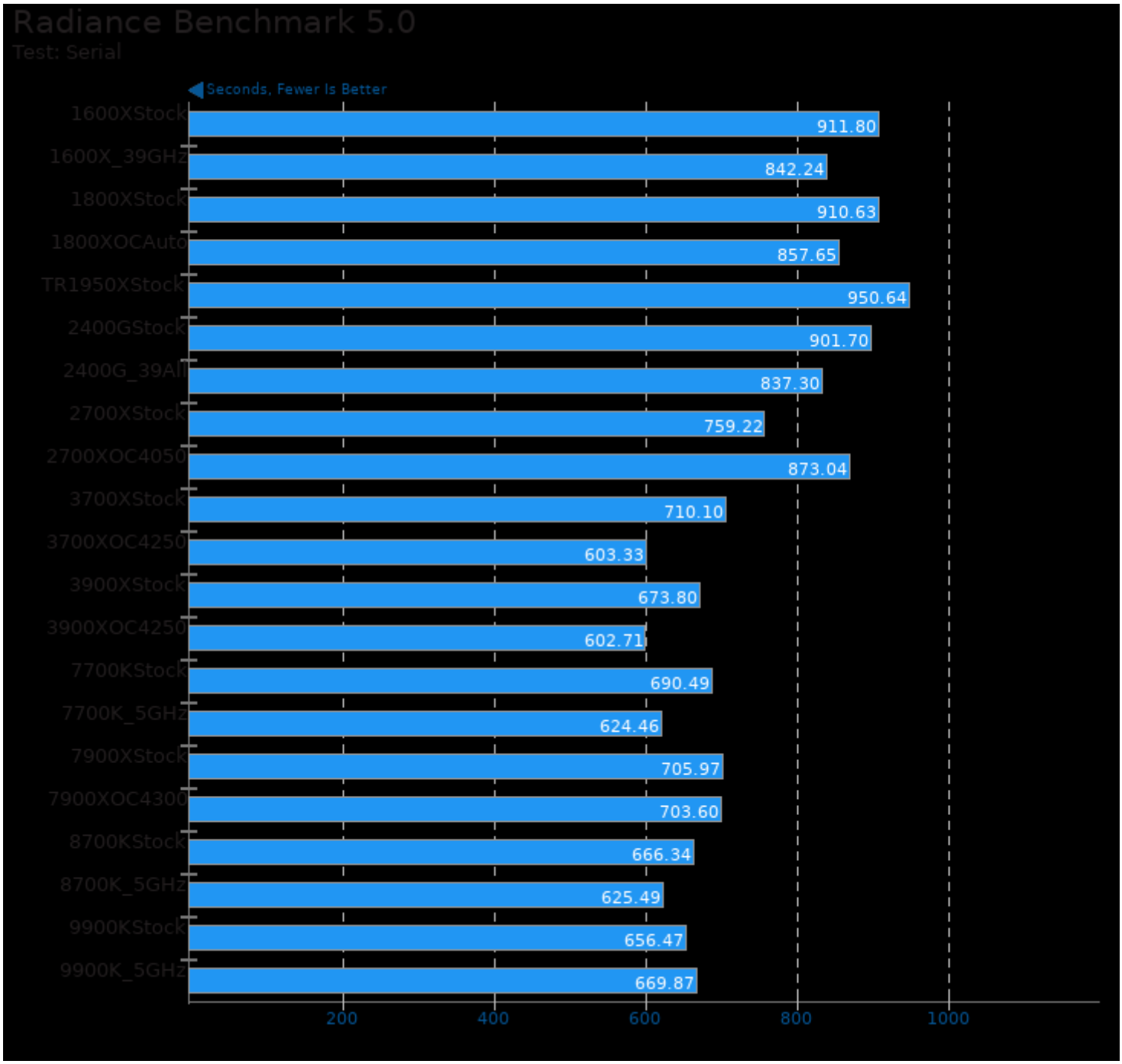
xdacputestsep2019



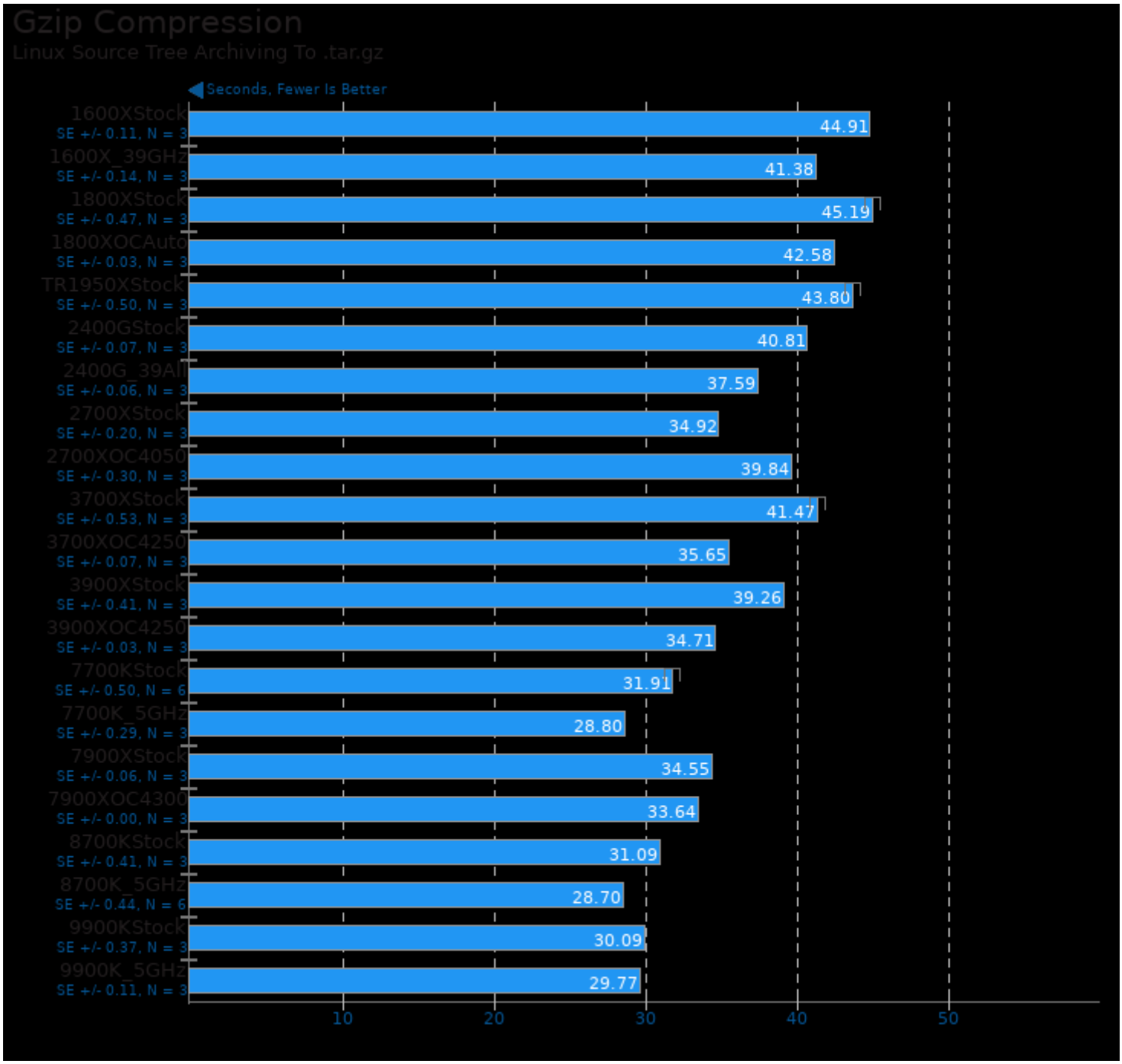

Timed MAFFT Alignment 7.392
Multiple Sequence Alignment
Seconds, Fewer Is Better
1600XStock
SE +/- 0.06, N = 3
3.85
1600X_39GHz
SE +/- 0.02, N = 3
3.42
1800XStock
SE +/- 0.01, N = 3
3.28
1800XOCAuto
SE +/- 0.04, N = 3
3.33
2400GStock
SE +/- 0.08, N = 6
4.80
2400G_39All
SE +/- 0.14, N = 6
4.42
2700XStock
SE +/- 0.01, N = 3
3.05
2700XOC4050
3.00
7700KStock
SE +/- 0.05, N = 3
3.30
7700K_5GHz
SE +/- 0.06, N = 6
3.29
8700KStock
SE +/- 0.06, N = 3
3.21
1.08
2.16
3.24
4.32
5.4
1. (CC) gcc options: -std=c99 -O3 -lm -lpthread

xdacputestsep2019

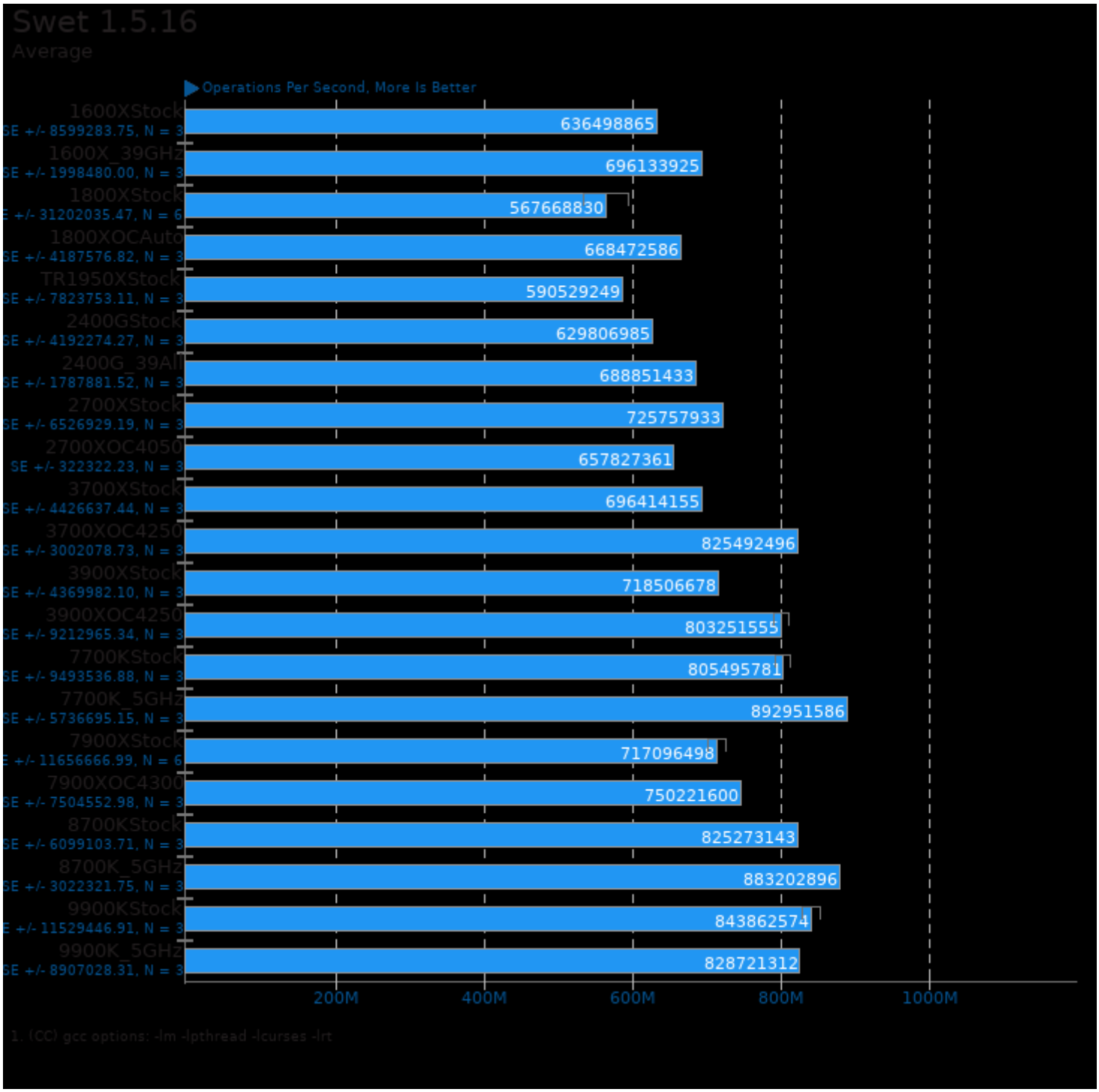



Radiance Benchmark 5.0
Test: Serial
Seconds, Fewer Is Better
1600XStock
911.80
1600X_39GHz
842.24
1800XStock
910.63
1800XOCAuto
857.65
TR1950XStock
950.64
2400GStock
901.70
2400G_39Al
837.30
2700XStock
759.22
2700XOC4050
873.04
3700XStock
710.10
3700XOC4250
603.33
3900XStock
673.80
3900XOC4250
602.71
7700KStock
690.49
7700K_5GHz
624.46
7900XStock
705.97
7900XOC4300
703.60
8700KStock
666.34
8700K_5GHz
625.49
9900KStock
656.47
9900K_5GHz
669.87
200
400
600
800
1000

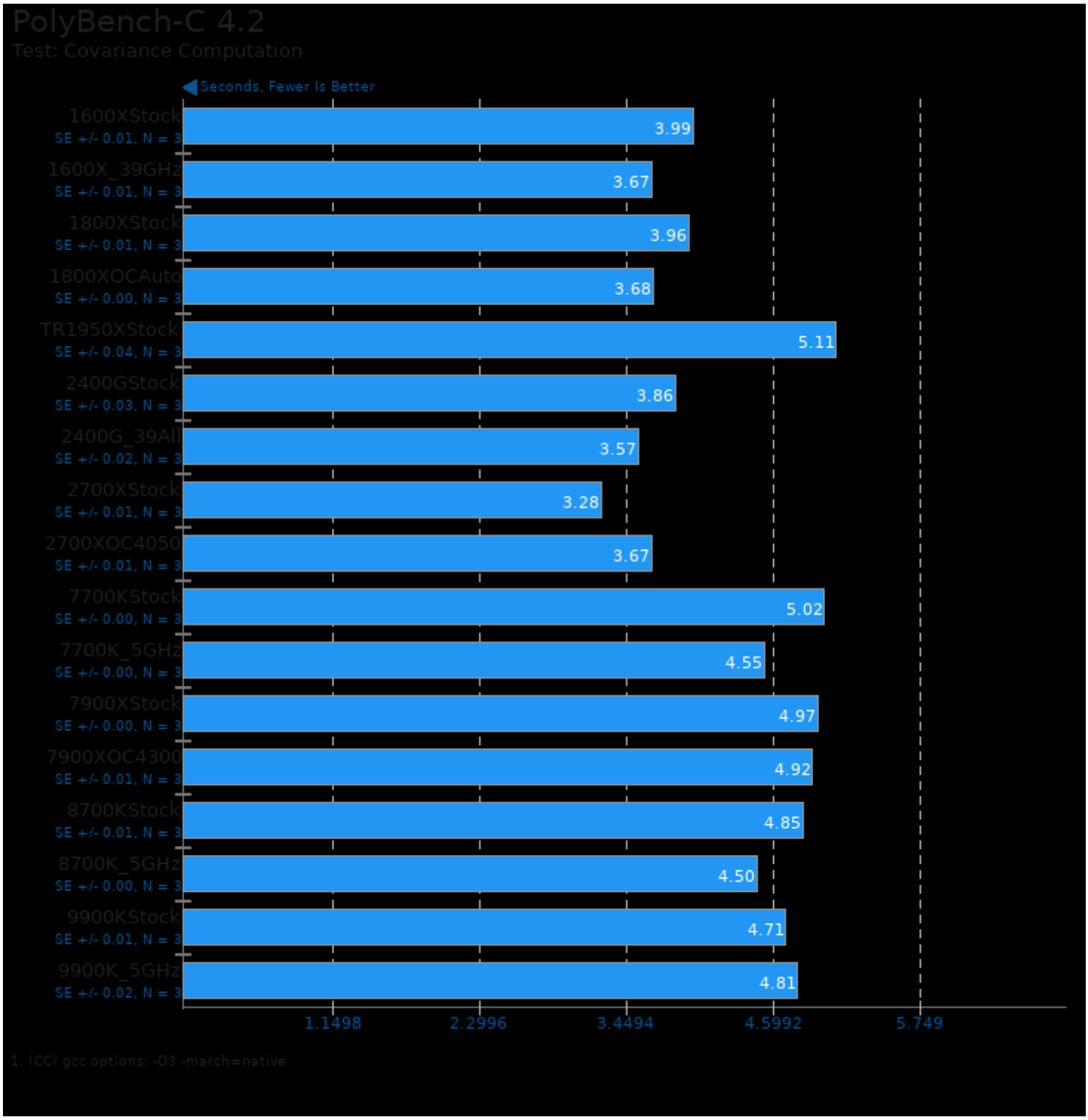
xdacputestsep2019

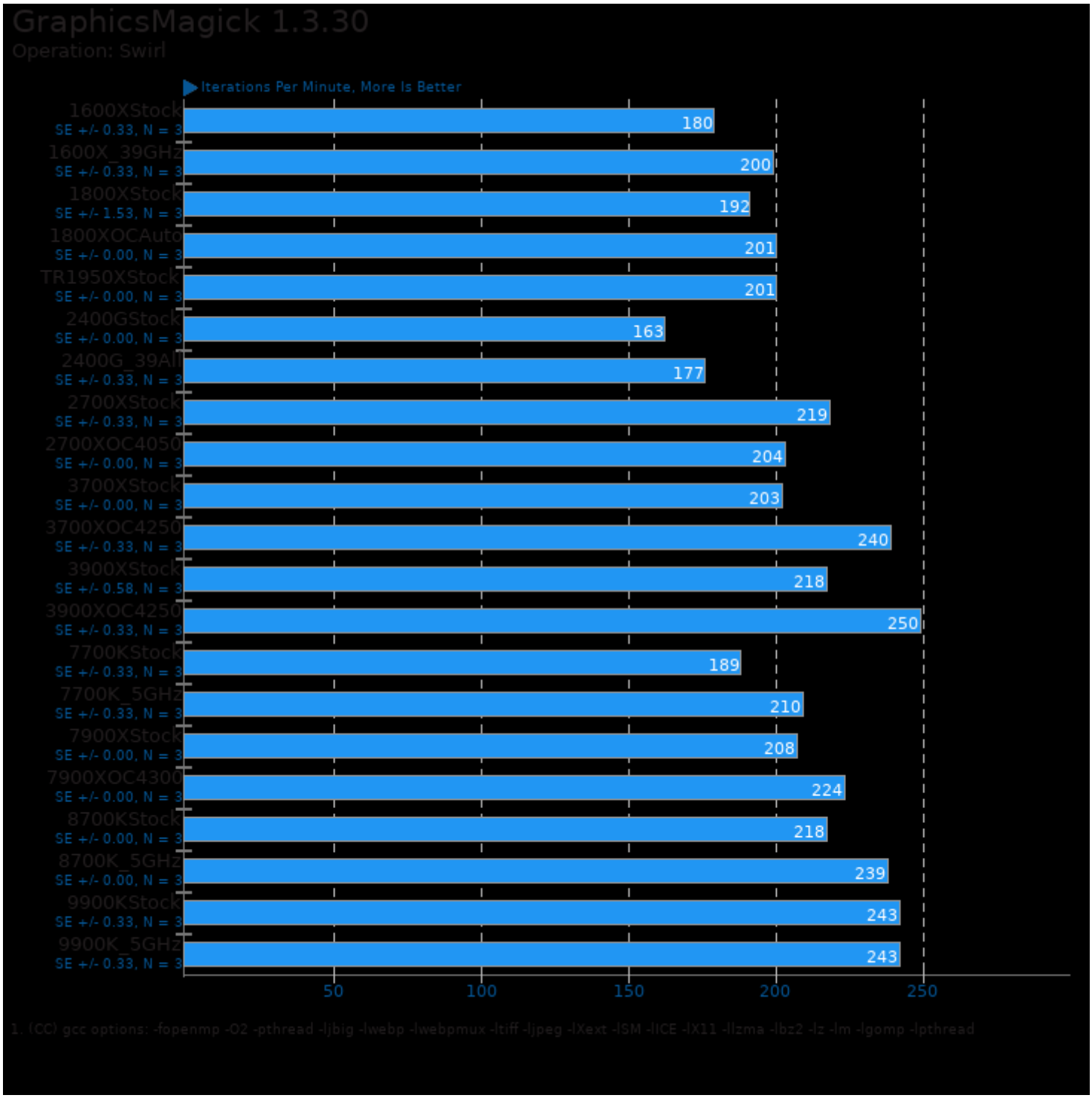


xdacputestsep2019

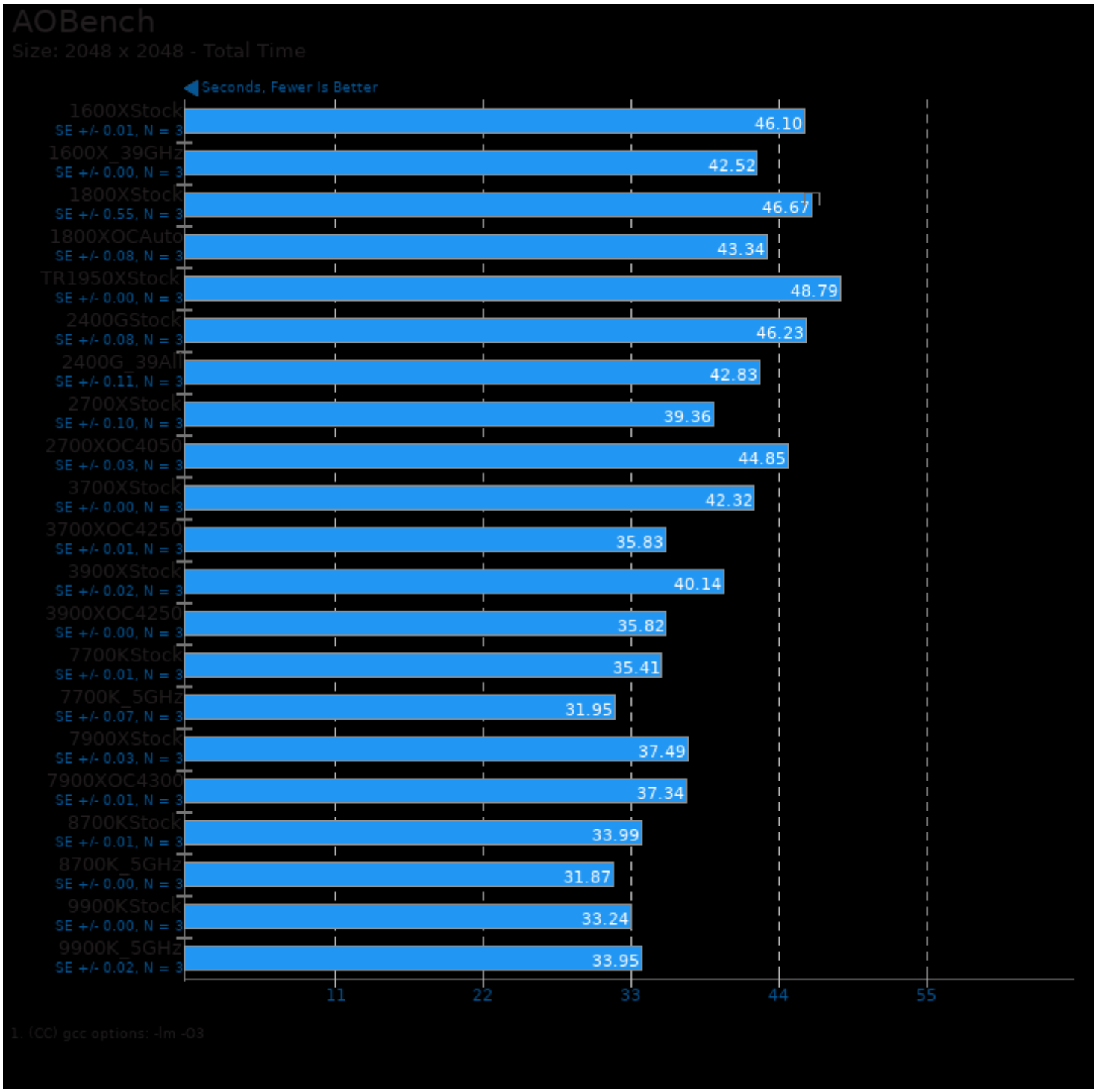


xdacputestsep2019

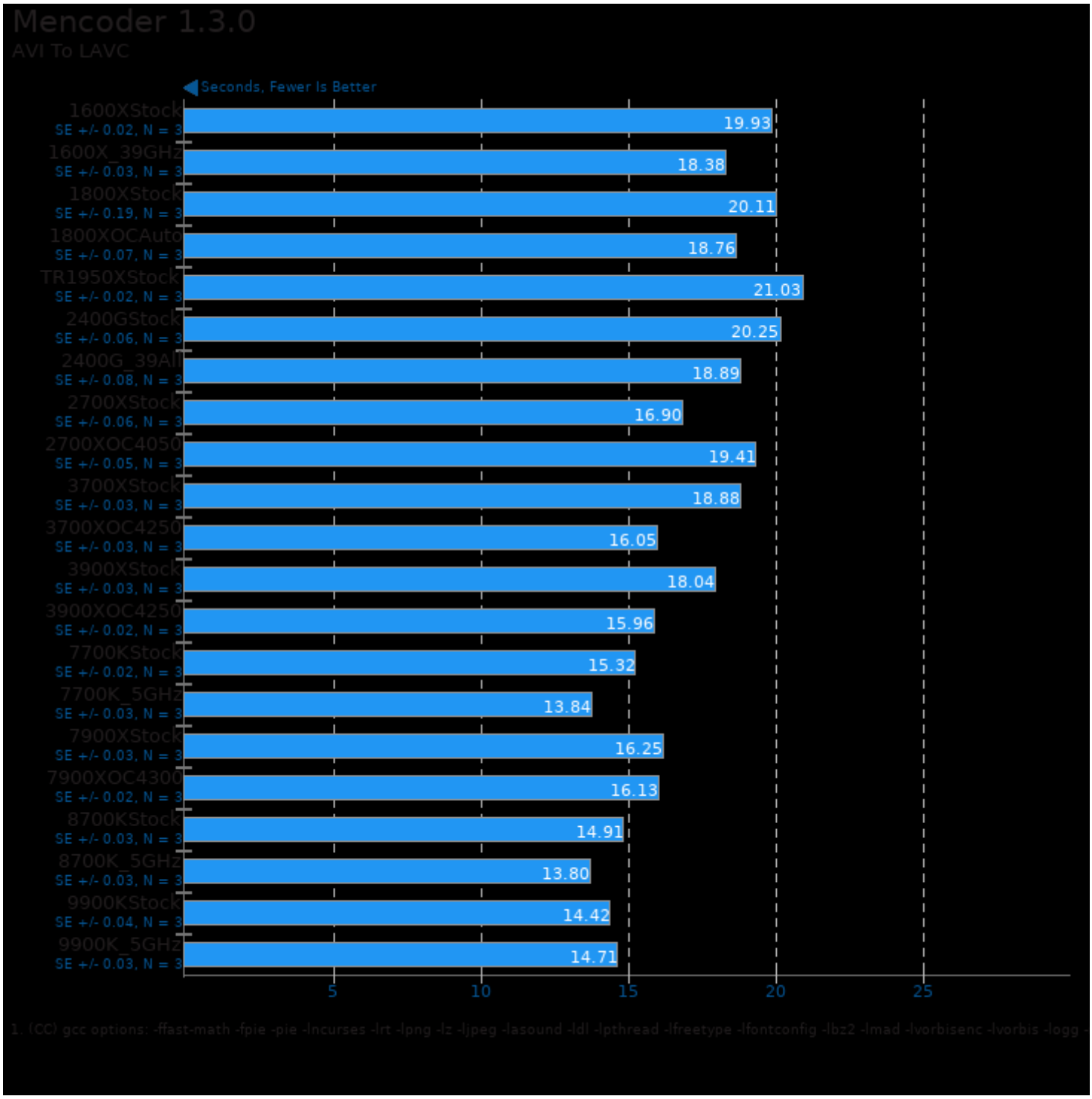



GraphicsMagick 1.3.30
Operation: Swirl
Iterations Per Minute, More Is Better
1600XStock
SE +/- 0.33, N = 3
180
1600X_39GHz
SE +/- 0.33, N = 3
200
1800XStock
SE +/- 1.53, N = 3
192
1800XOCAuto
SE +/- 0.00, N = 3
201
TR1950XStock
SE +/- 0.00, N = 3
201
2400GStock
SE +/- 0.00, N = 3
163
2400G_39All
SE +/- 0.33, N = 3
177
2700XStock
SE +/- 0.33, N = 3
219
2700XOC4050
SE +/- 0.00, N = 3
204
3700XStock
SE +/- 0.00, N = 3
203
3700XOC4250
SE +/- 0.33, N = 3
240
3900XStock
SE +/- 0.58, N = 3
218
3900XOC4250
SE +/- 0.33, N = 3
250
7700KStock
SE +/- 0.33, N = 3
189
7700K_5GHz
SE +/- 0.33, N = 3
210
7900XStock
SE +/- 0.00, N = 3
208
7900XOC4300
SE +/- 0.00, N = 3
224
8700KStock
SE +/- 0.00, N = 3
218
8700K_5GHz
SE +/- 0.00, N = 3
239
9900KStock
SE +/- 0.33, N = 3
243
9900K_5GHz
SE +/- 0.33, N = 3
243
50
100
150
200
250
1. (CC) gcc options: -fopenmp -O2 -pthread -ljbig -lwebp -lwebpmux -ltiff -ljpeg -lXext -lSM -lICE -lX11 -llzma -lbz2 -lz -lm -lgomp -lpthread

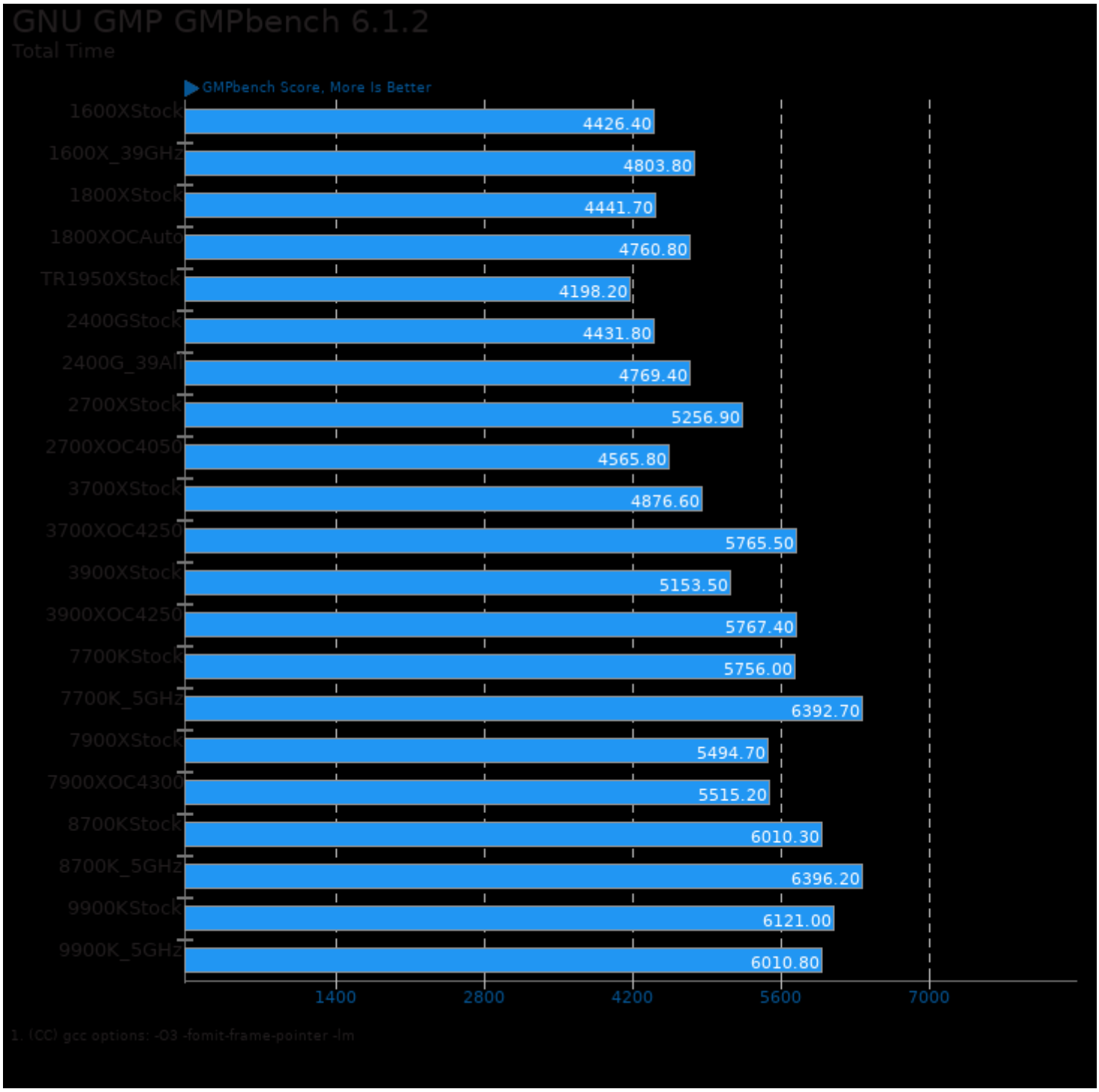
xdacputestsep2019



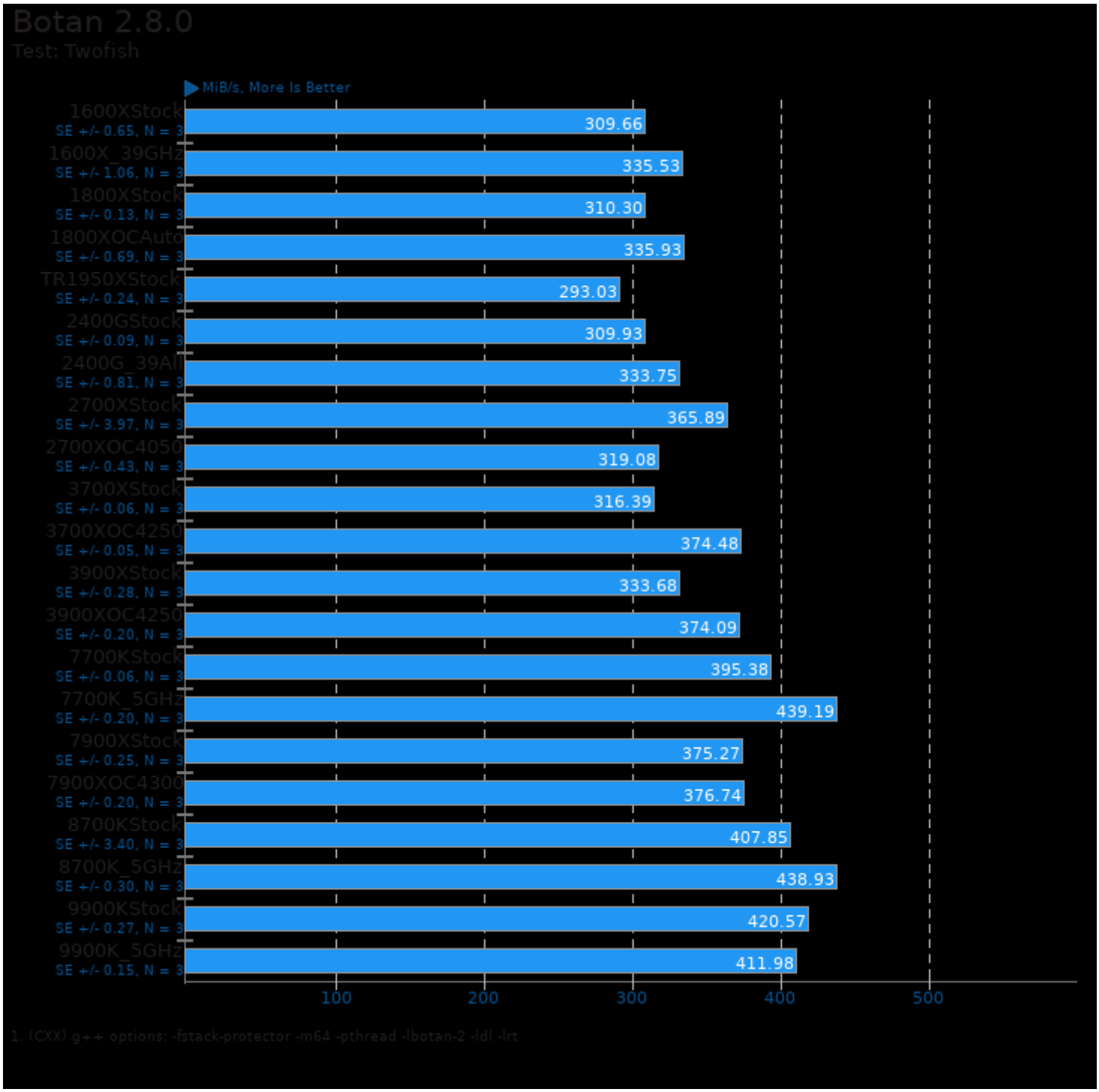
xdacputestsep2019



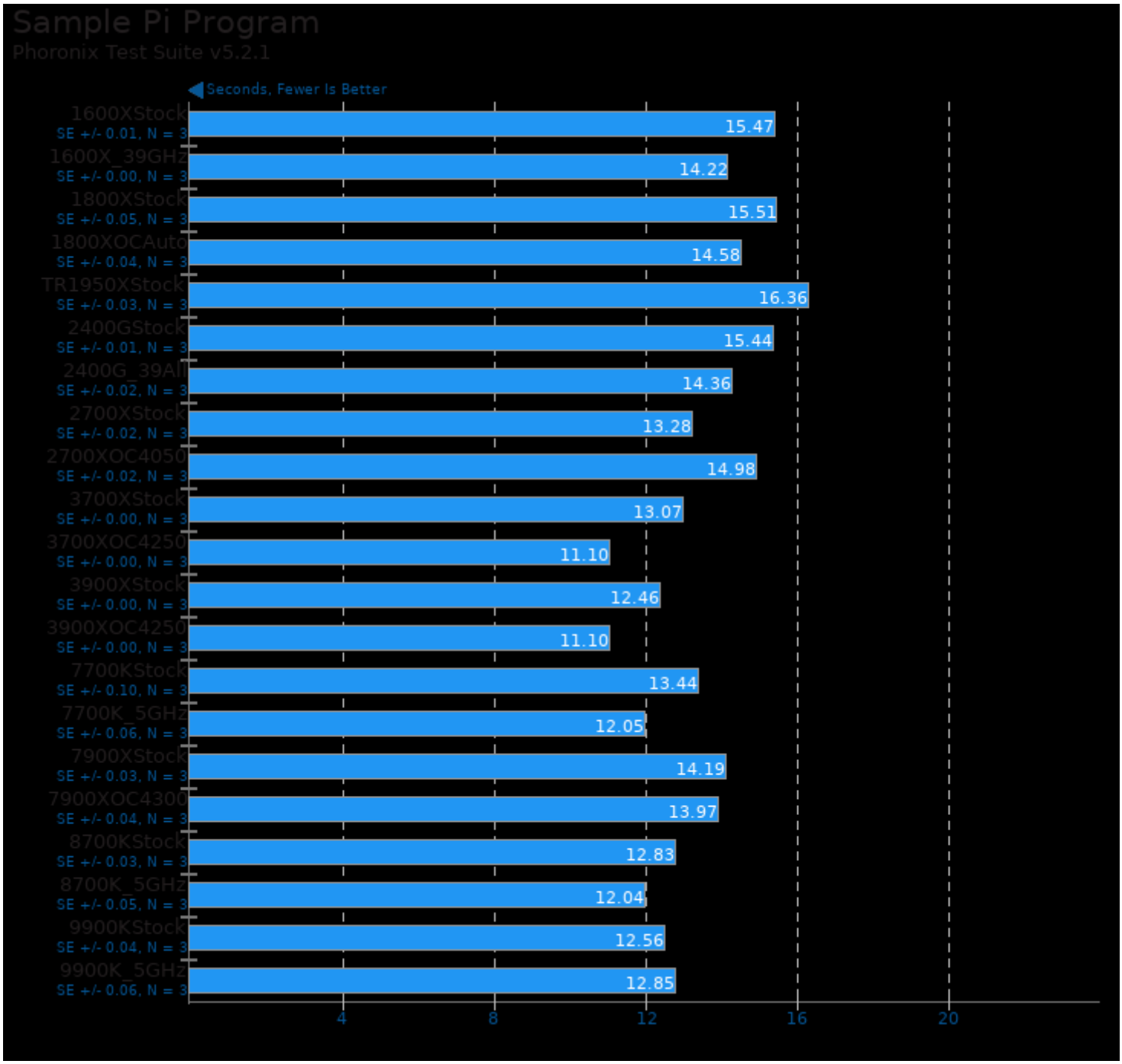
xdacputestsep2019



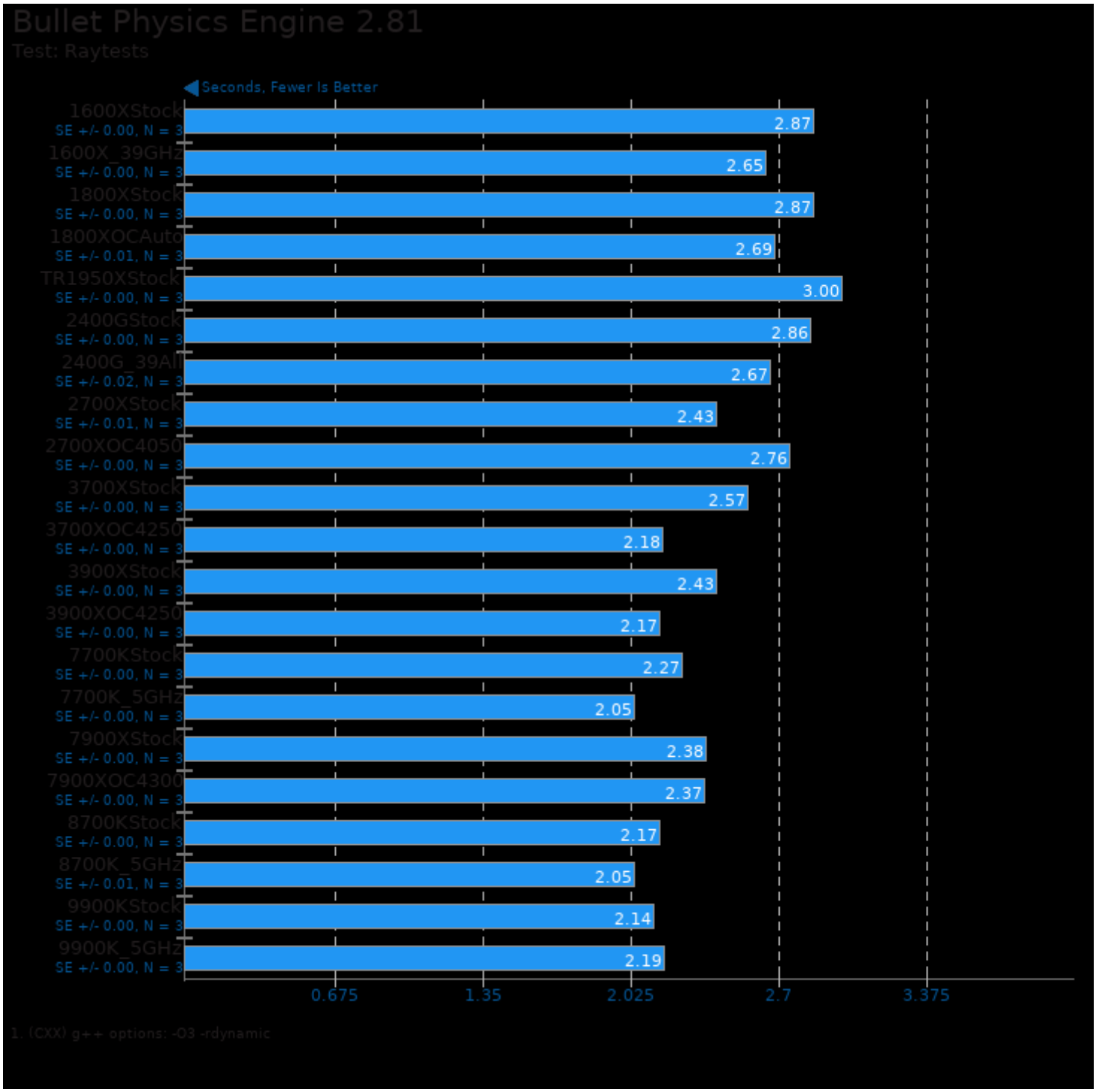
xdacputestsep2019



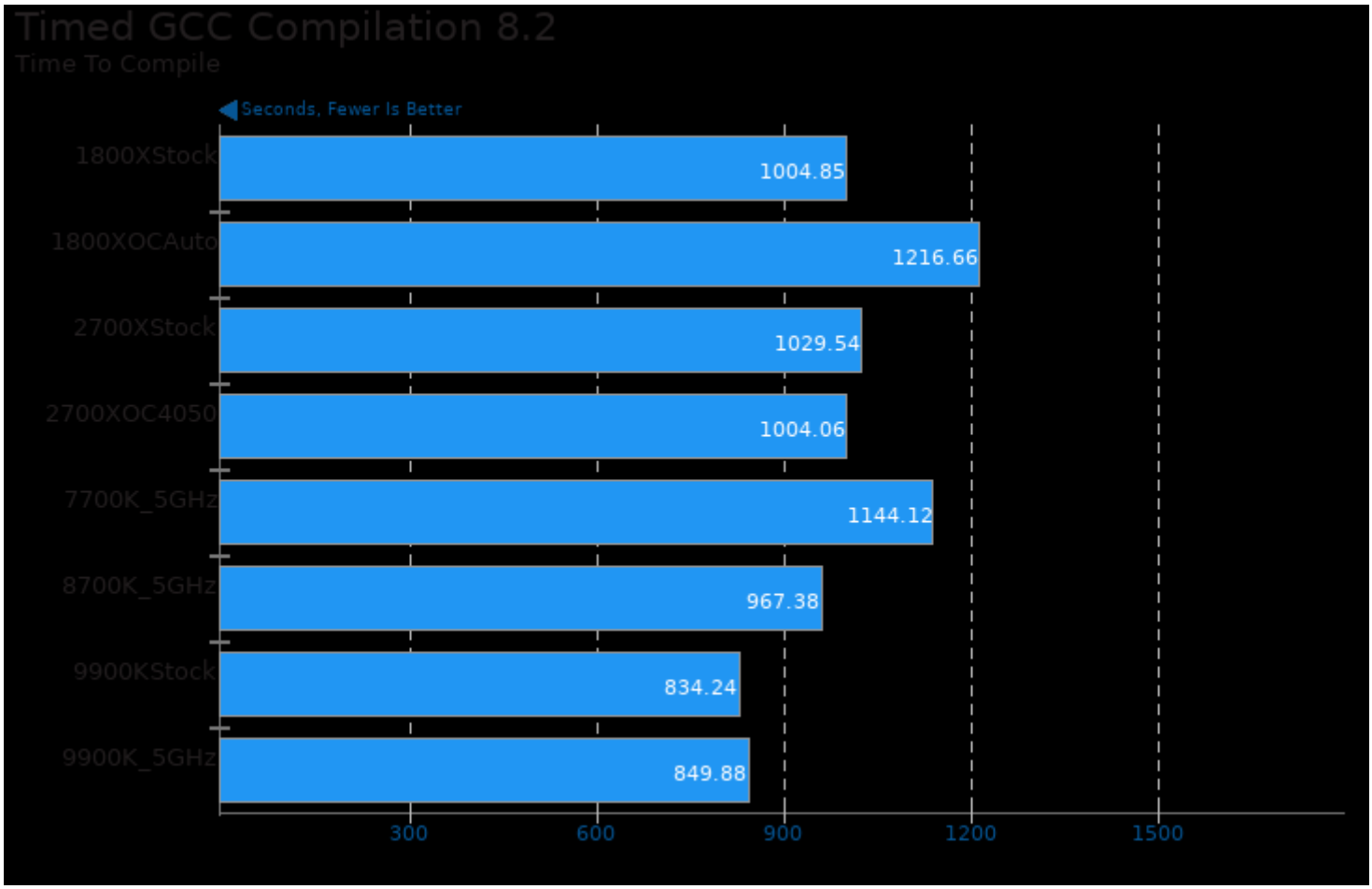
xdacputestsep2019

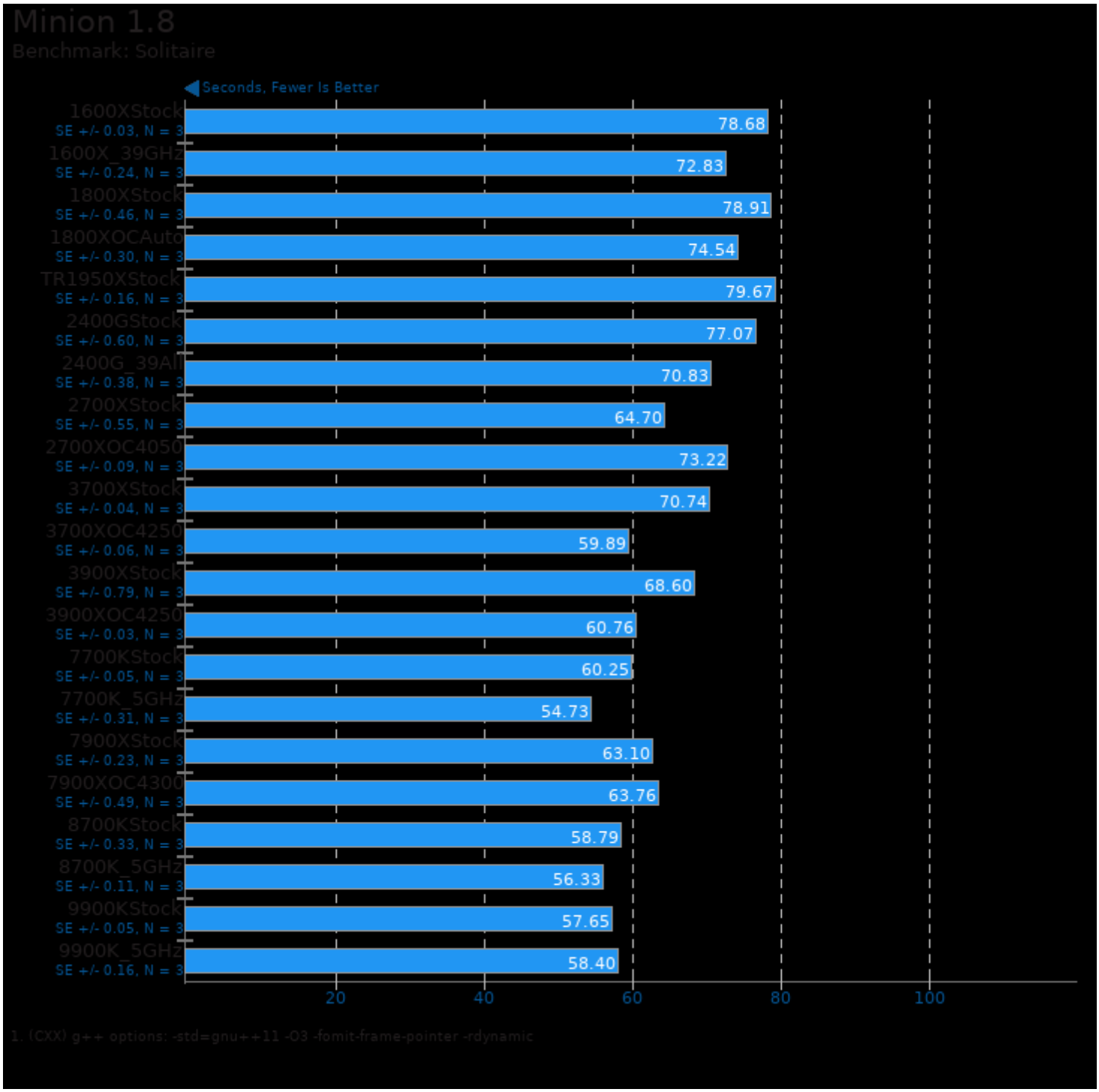


xdacputestsep2019

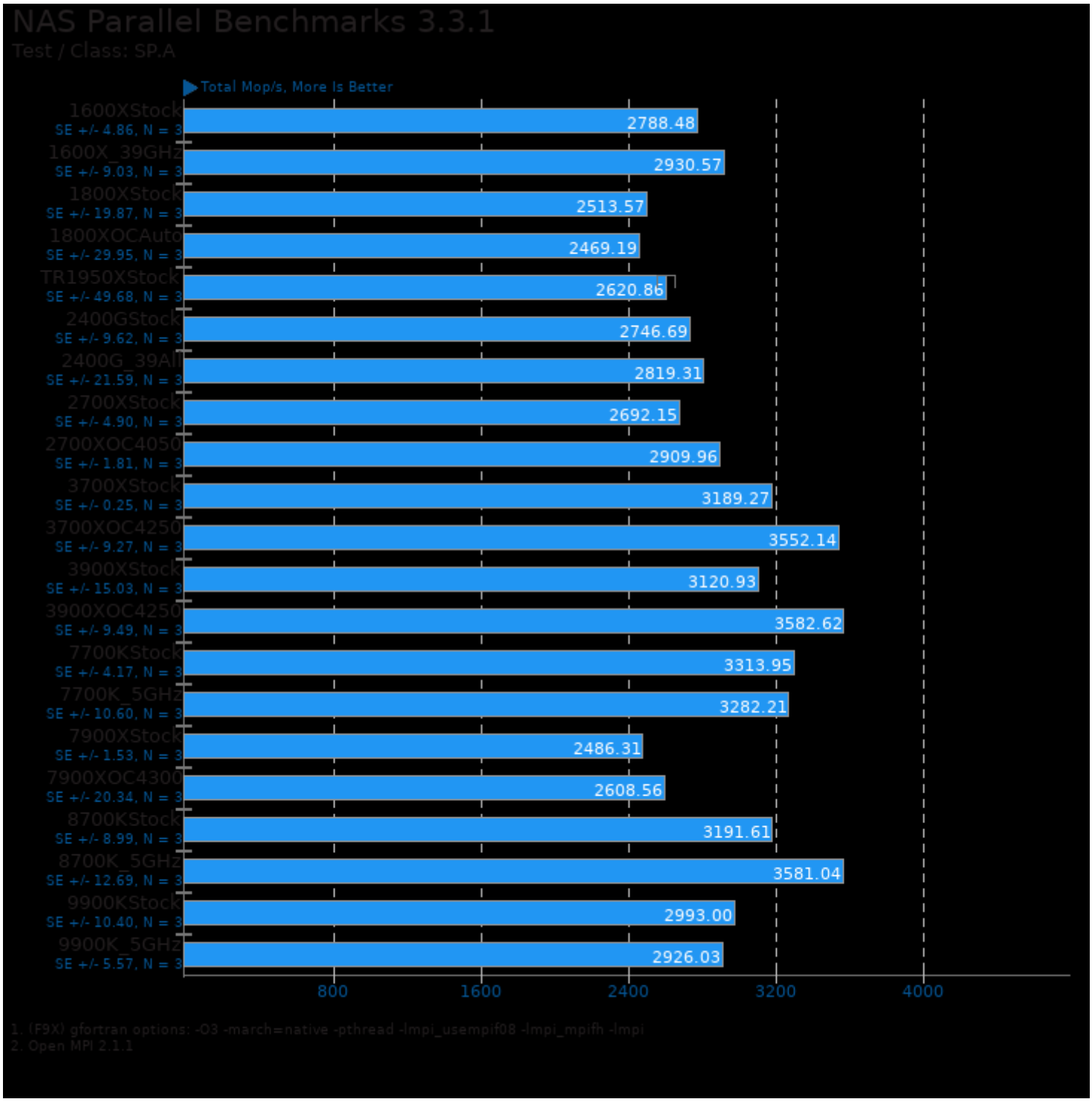


xdacputestsep2019

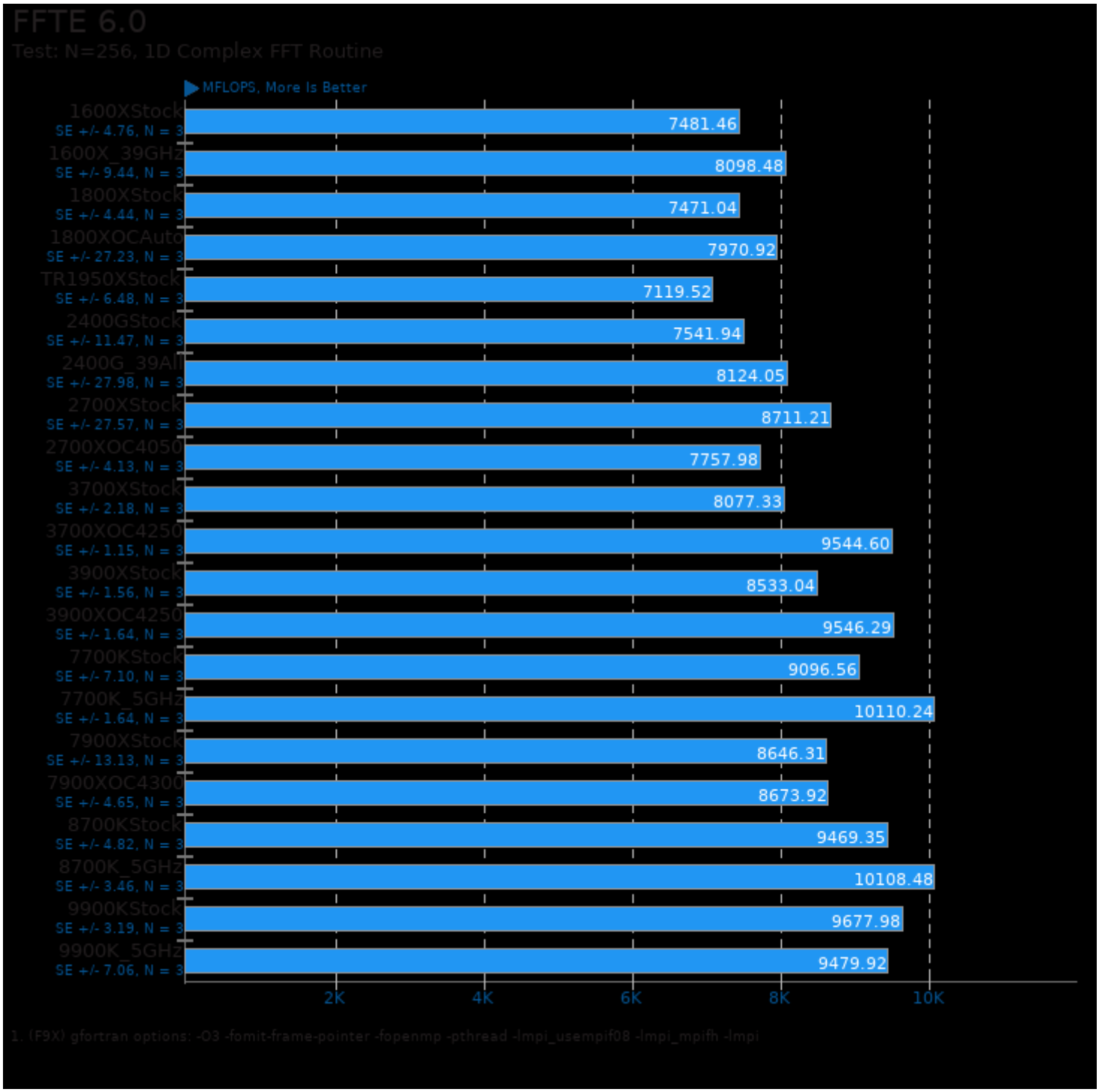



Minion 1.8
Benchmark: Solitaire
Seconds, Fewer Is Better
1600XStock
SE +/- 0.03, N = 3
78.68
1600X_39GHz
SE +/- 0.24, N = 3
72.83
1800XStock
SE +/- 0.46, N = 3
78.91
1800XOCAuto
SE +/- 0.30, N = 3
74.54
TR1950XStock
SE +/- 0.16, N = 3
79.67
2400GStock
SE +/- 0.60, N = 3
77.07
2400G_39Alt
SE +/- 0.38, N = 3
70.83
2700XStock
SE +/- 0.55, N = 3
64.70
2700XOC4050
SE +/- 0.09, N = 3
73.22
3700XStock
SE +/- 0.04, N = 3
70.74
3700XOC4250
SE +/- 0.06, N = 3
59.89
3900XStock
SE +/- 0.79, N = 3
68.60
3900XOC4250
SE +/- 0.03, N = 3
60.76
7700KStock
SE +/- 0.05, N = 3
60.25
7700K_5GHz
SE +/- 0.31, N = 3
54.73
7900XStock
SE +/- 0.23, N = 3
63.10
7900XOC4300
SE +/- 0.49, N = 3
63.76
8700KStock
SE +/- 0.33, N = 3
58.79
8700K_5GHz
SE +/- 0.11, N = 3
56.33
9900KStock
SE +/- 0.05, N = 3
57.65
9900K_5GHz
SE +/- 0.16, N = 3
58.40
20
40
60
80
100
1. (CXX) g++ options: -std=gnu++11 -O3 -fomit-frame-pointer -rdynamic

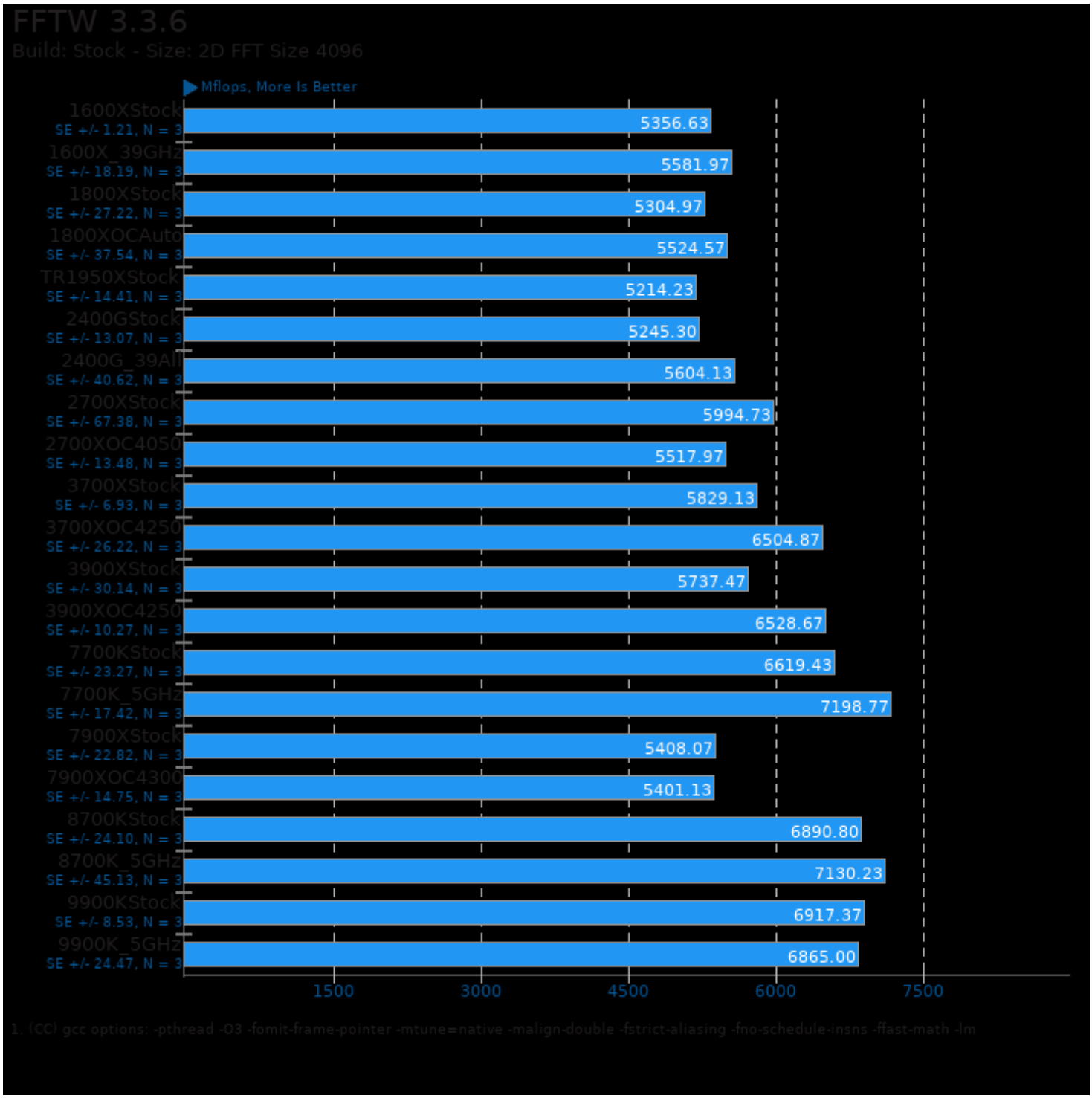
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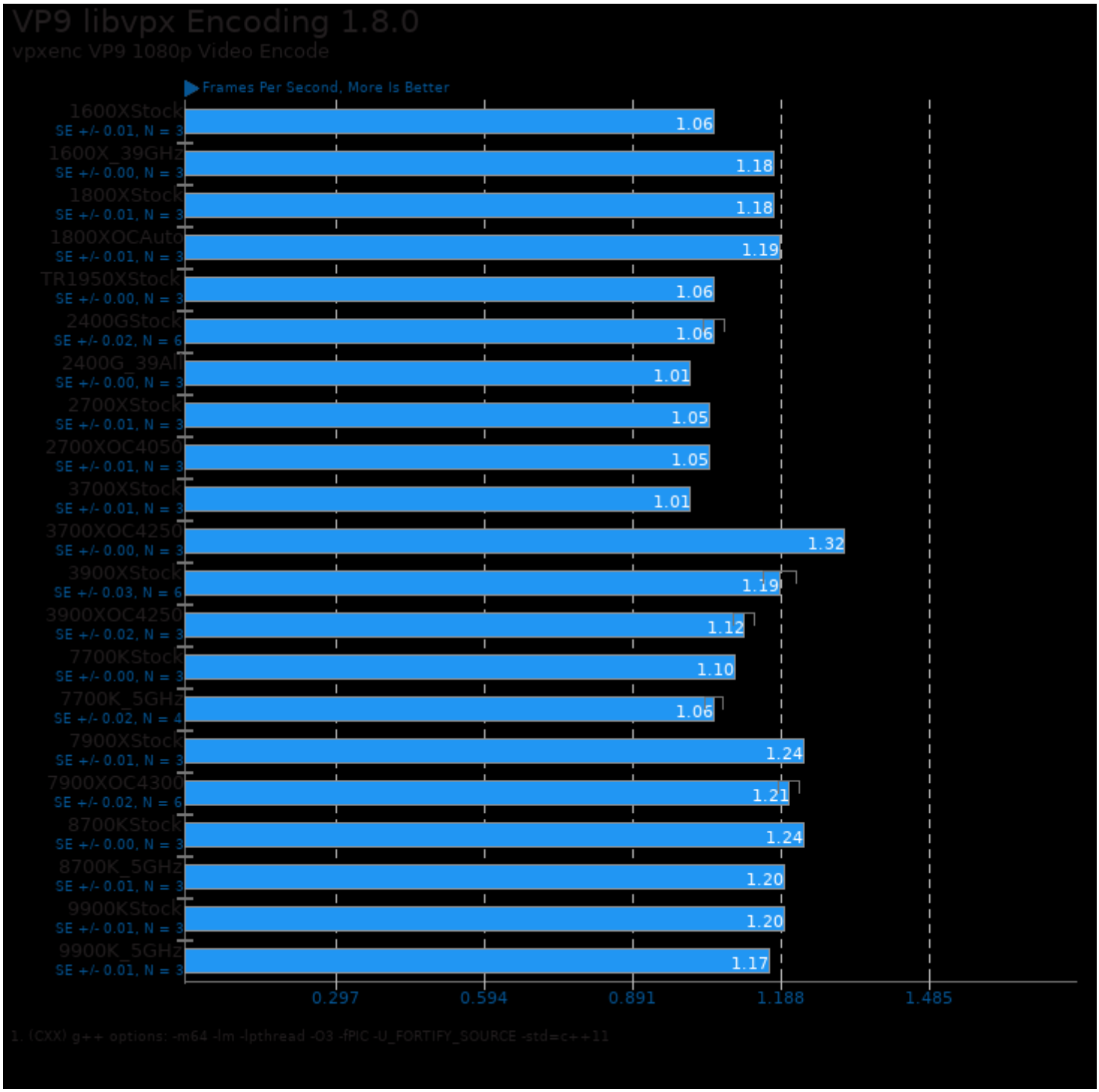
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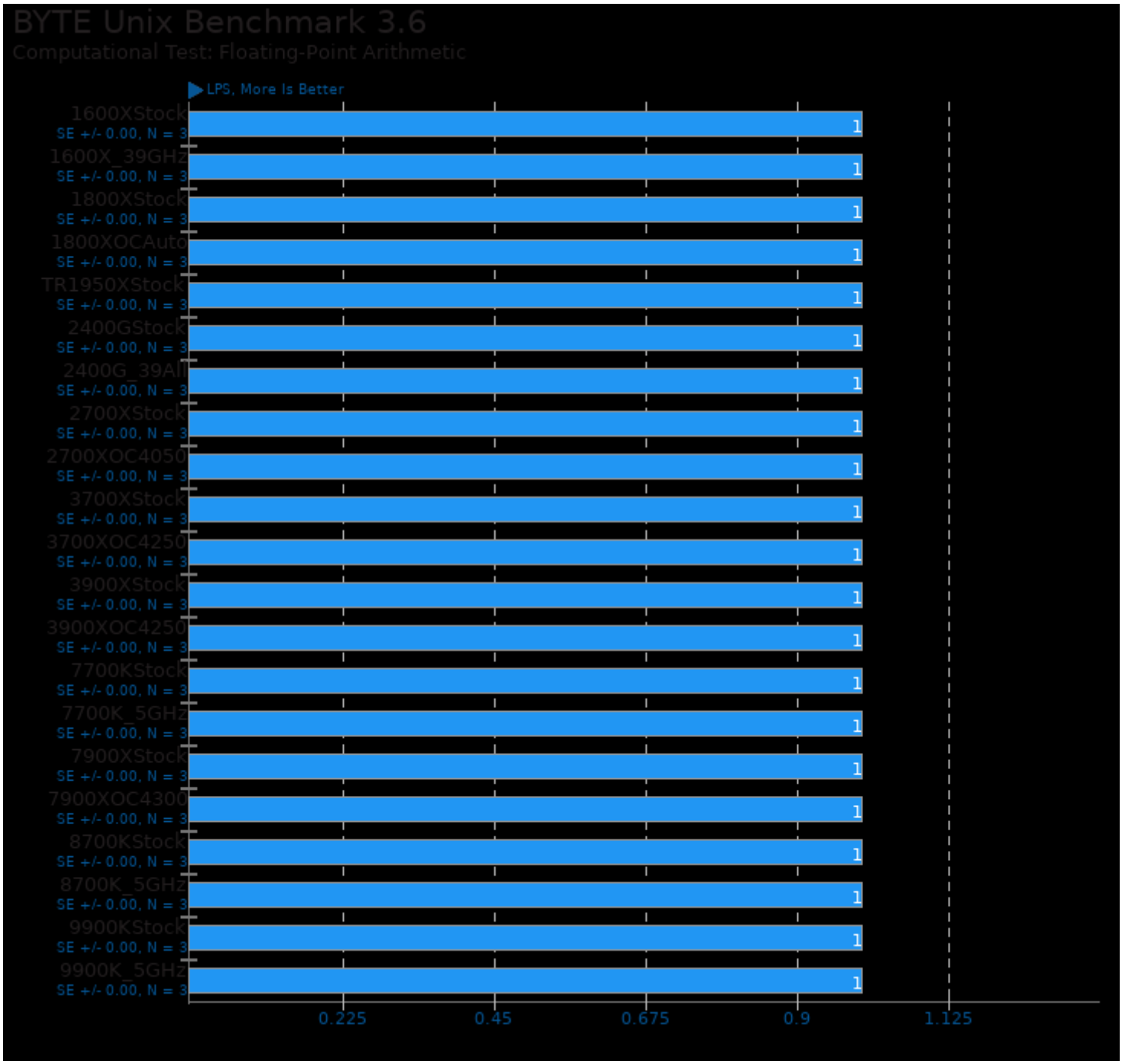
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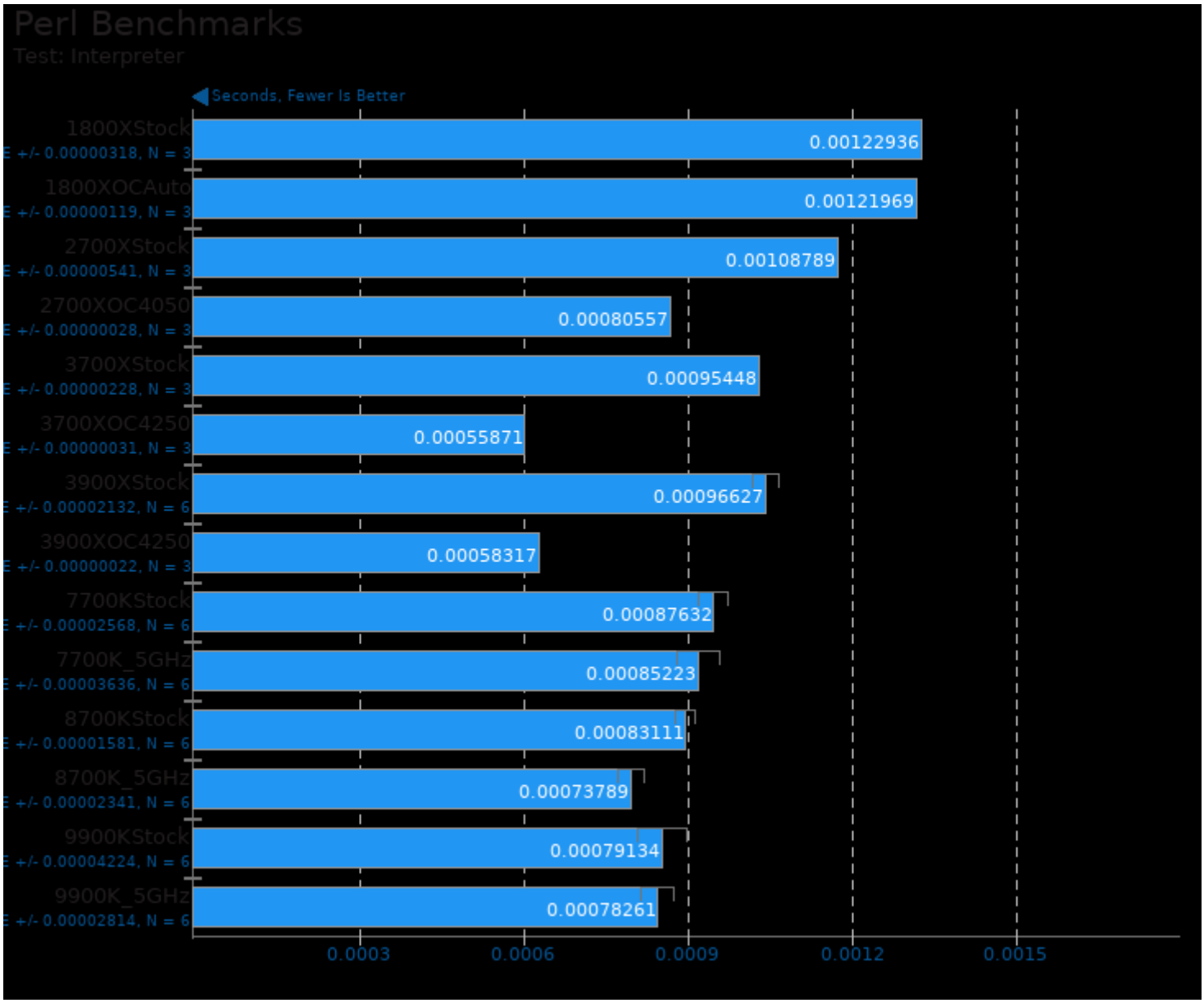
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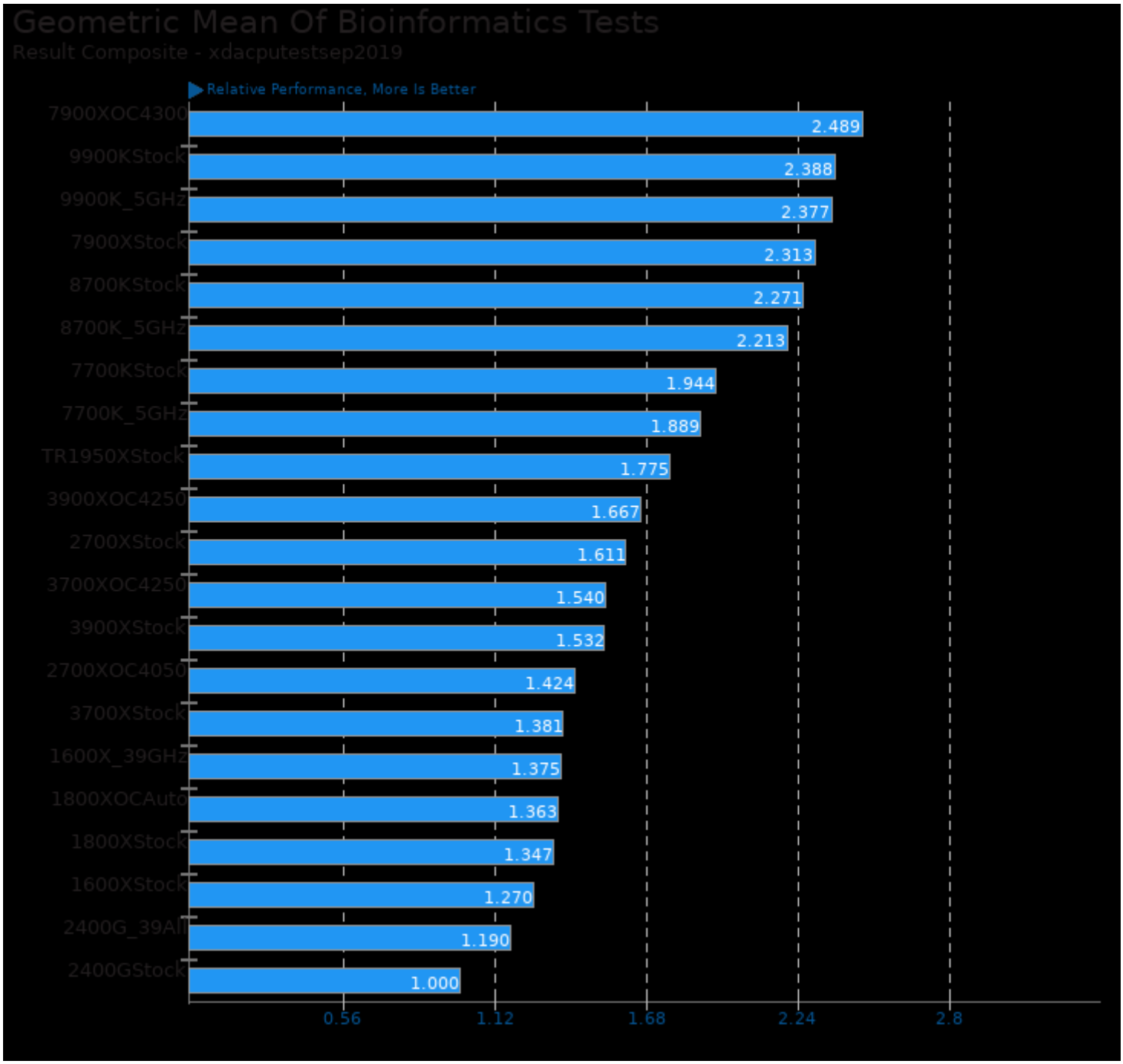


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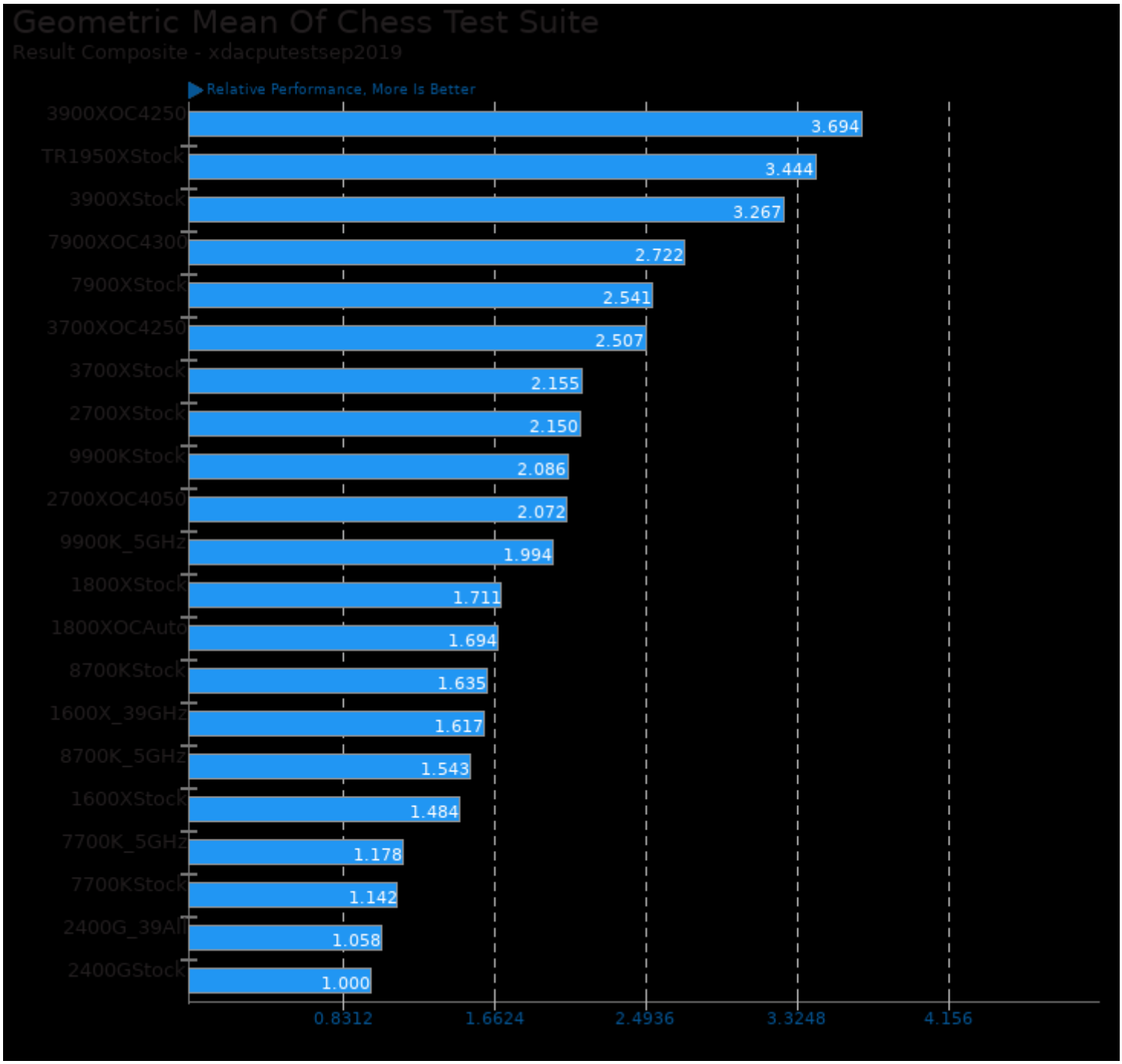


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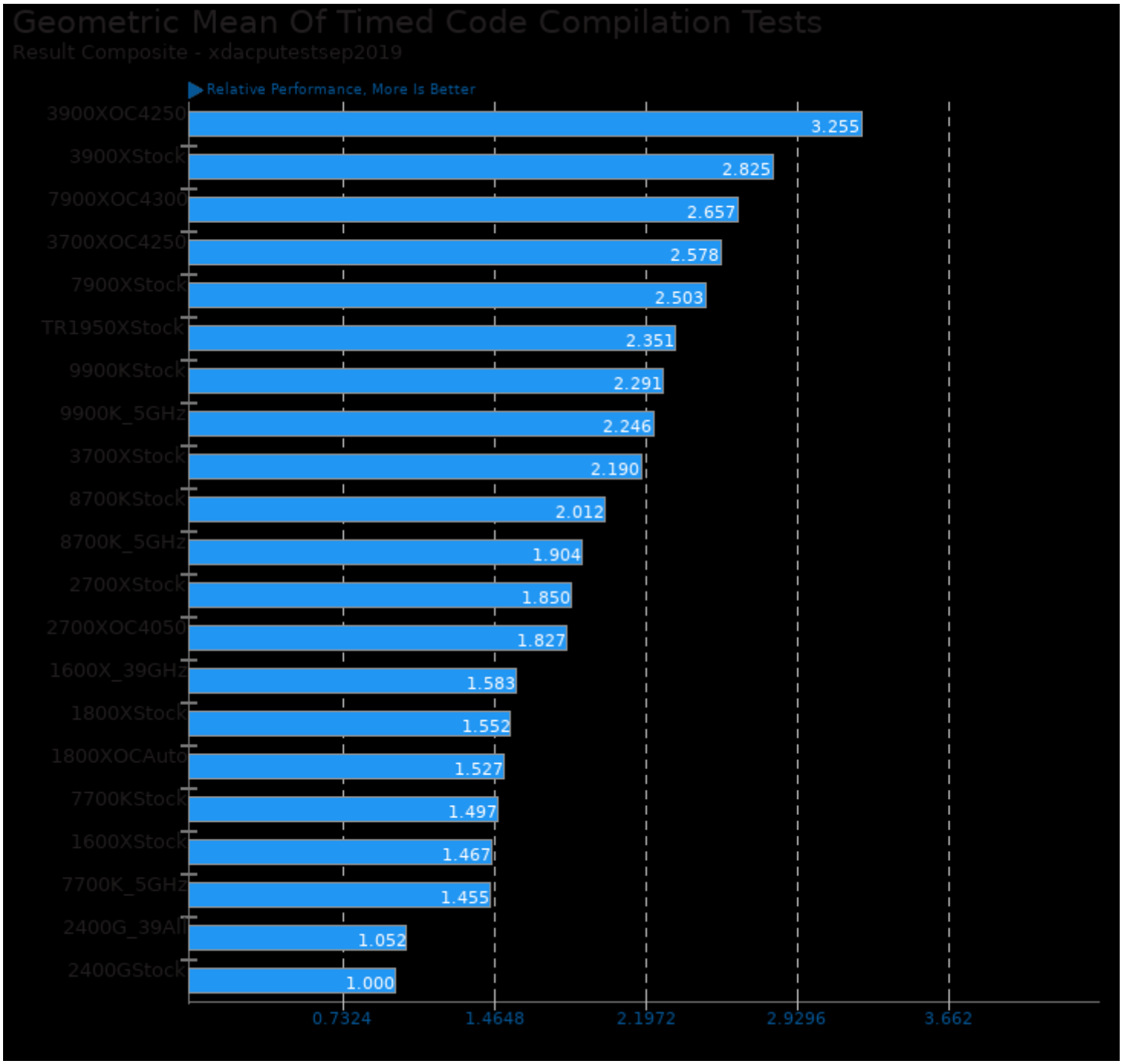
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/himeno, pts/mrbayes, pts/hmmer and pts/mafft

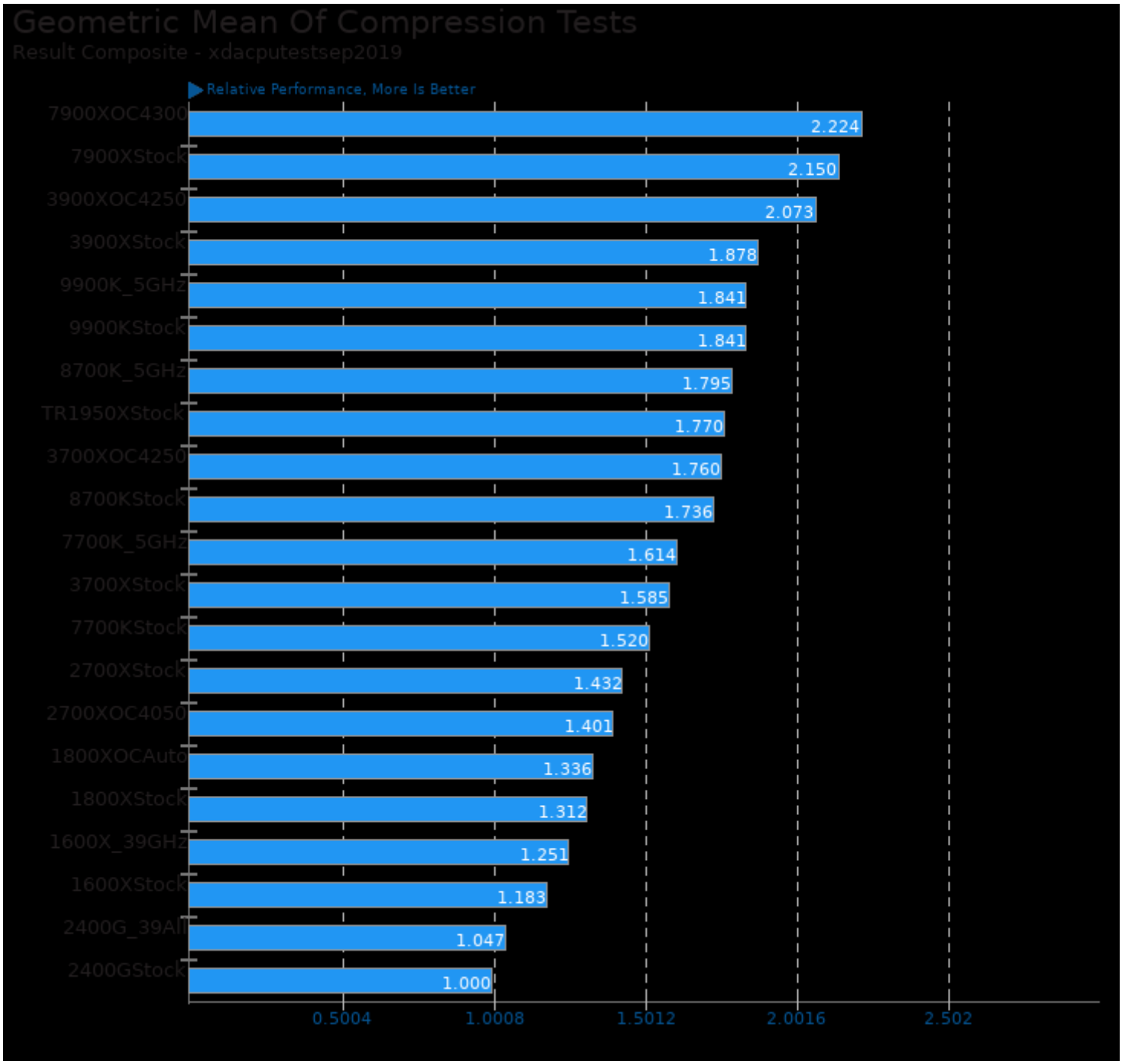


Geometric mean based upon tests: pts/crafty, pts/stockfish, pts/asmfish, pts/n-queens and pts/m-queens



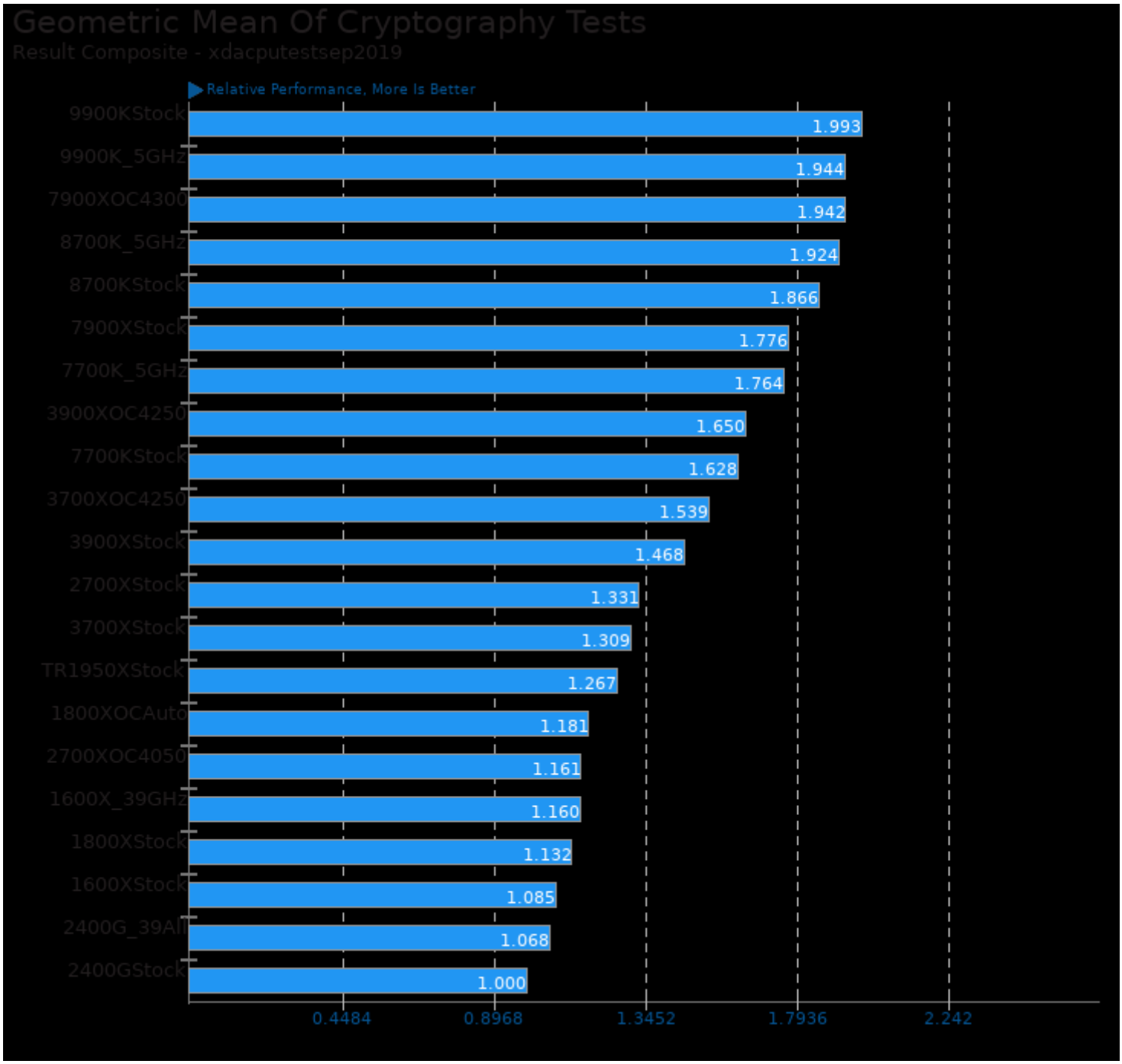
Geometric mean based upon tests: pts/build-php, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc and pts/build-llvm

xdacputestsep2019



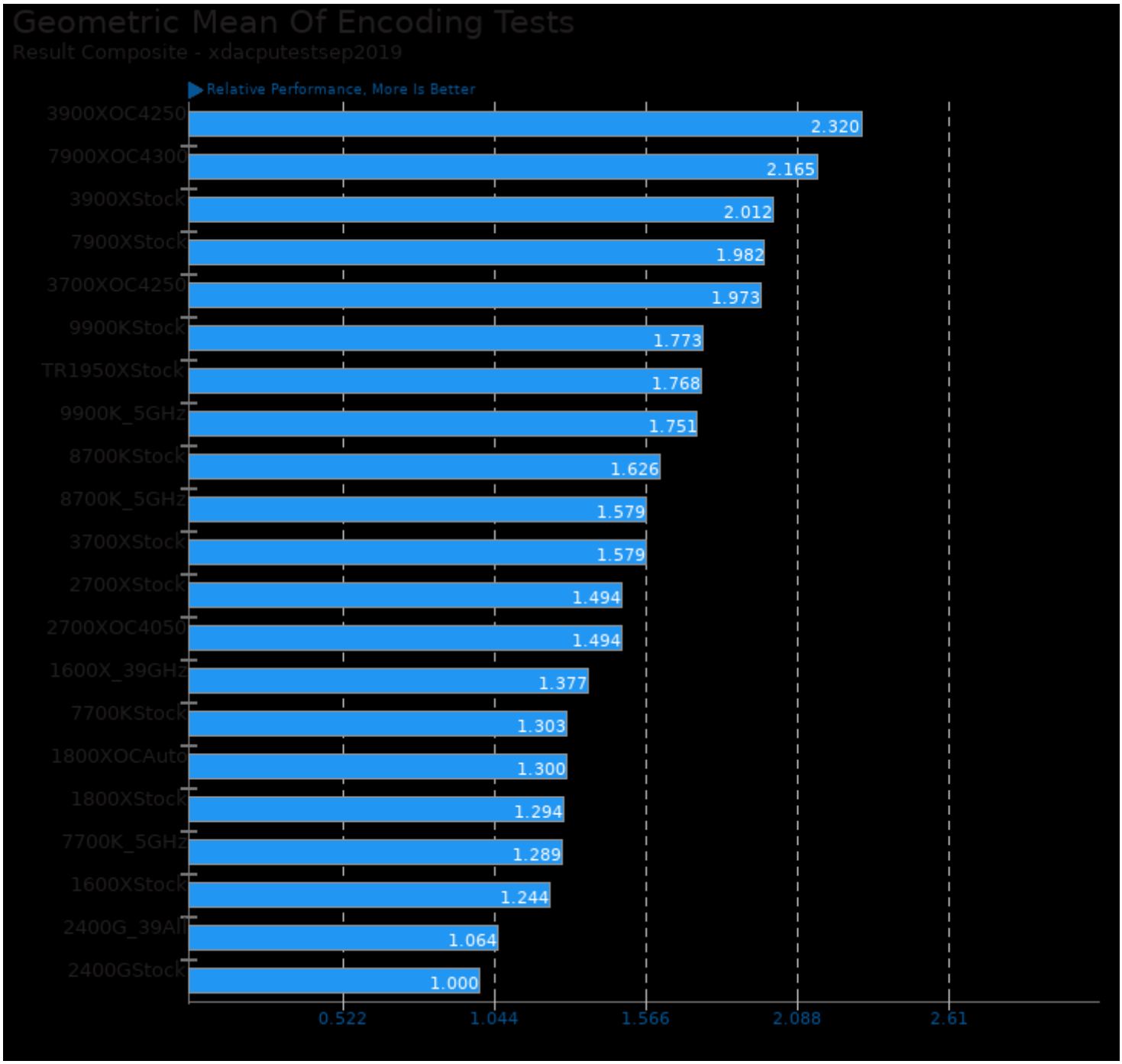
Geometric mean based upon tests: pts/compress-7zip, pts/compress-gzip, pts/compress-pbzip2, pts/compress-zstd, pts/compress-xz and pts/lzbench

xdacputestsep2019



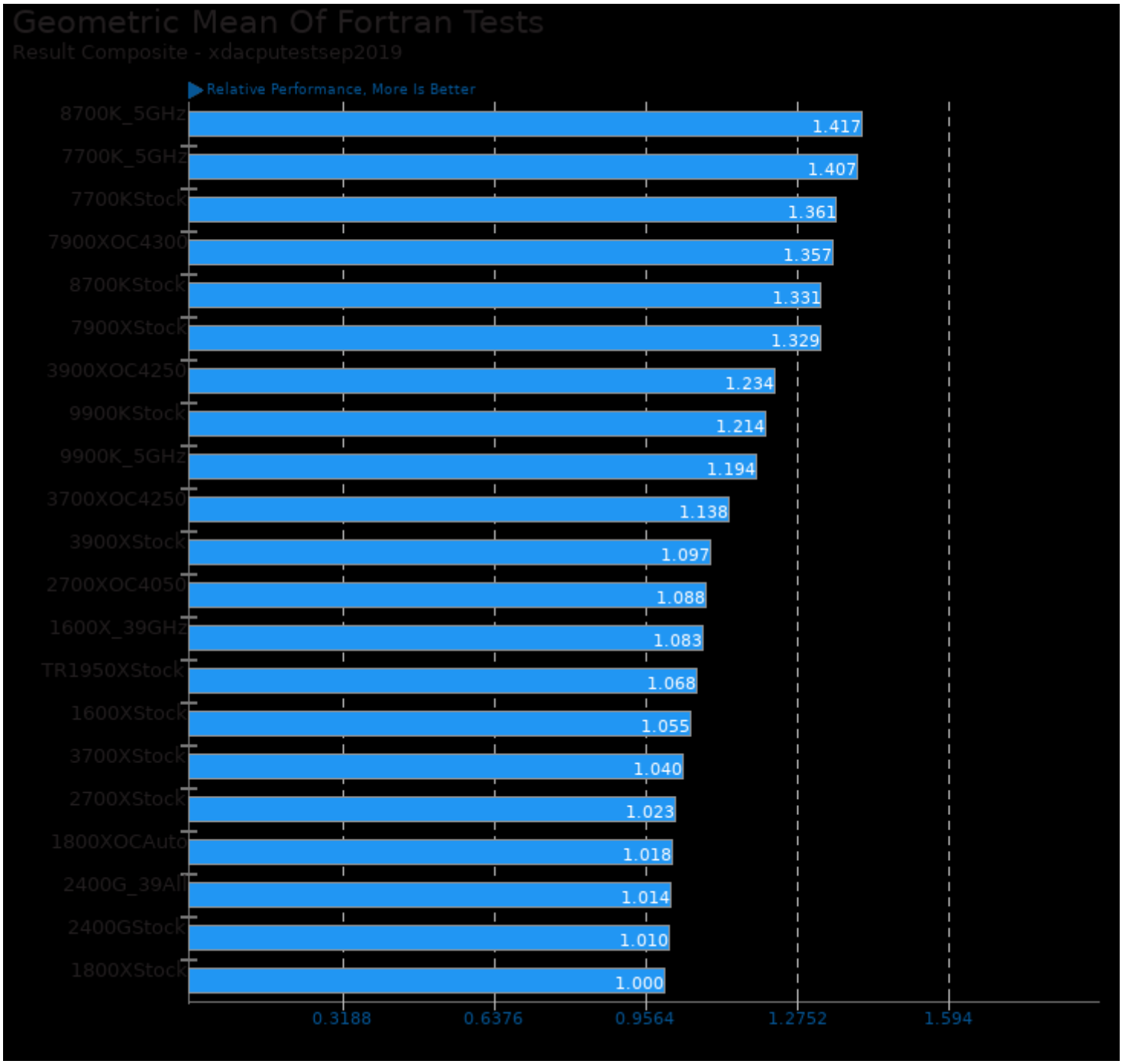
Geometric mean based upon tests: pts/gnupg, pts/openssl, pts/blake2, pts/john-the-ripper, pts/botan, pts/bork and pts/aircrack-ng

xdacputestsep2019



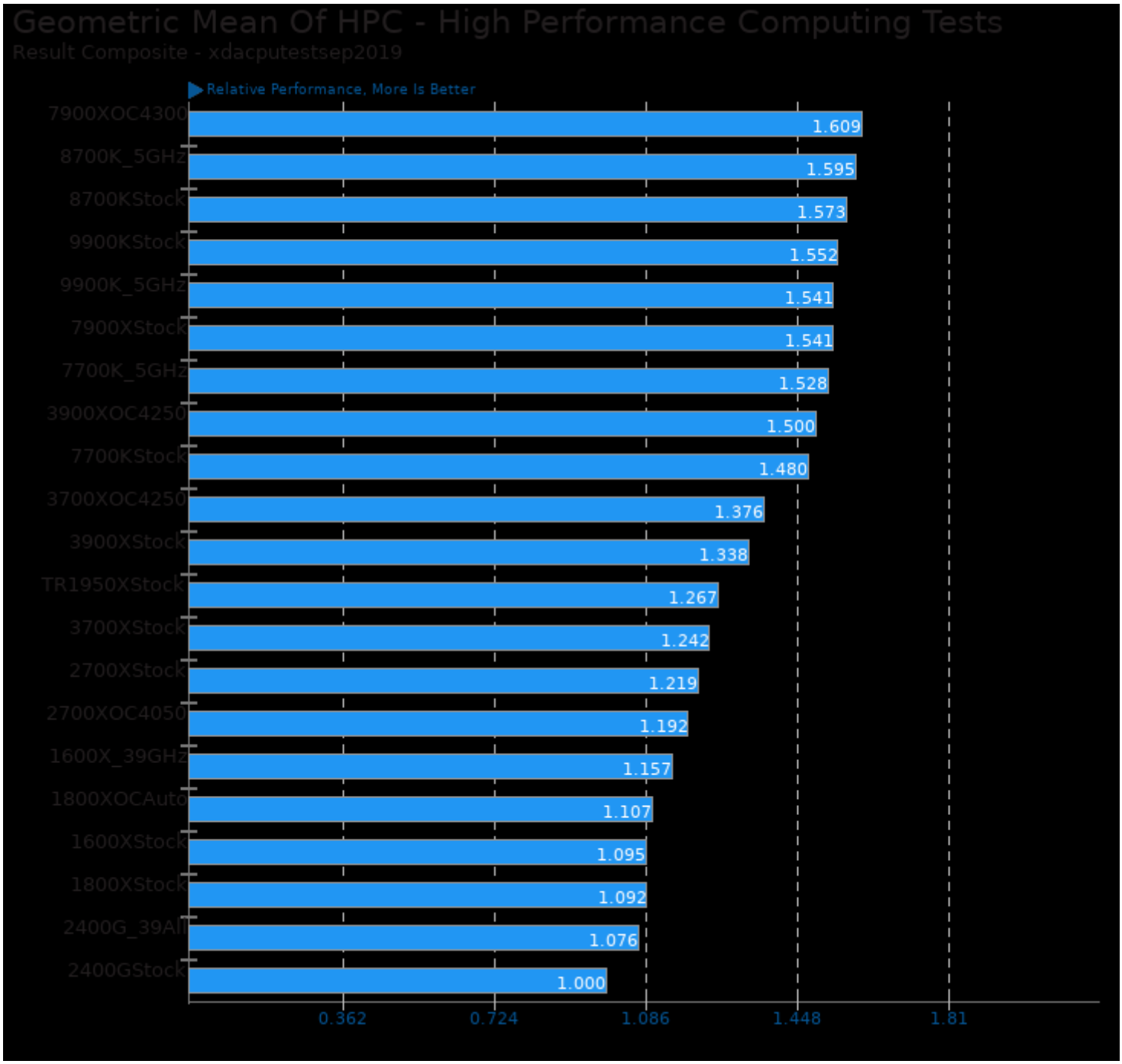
Geometric mean based upon tests: pts/encode-mp3, pts/svt-vp9, pts/svt-hevc, pts/x264, pts/x265, pts/ffmpeg, pts/vpxenc and pts/svt-av1

xdacputestsep2019



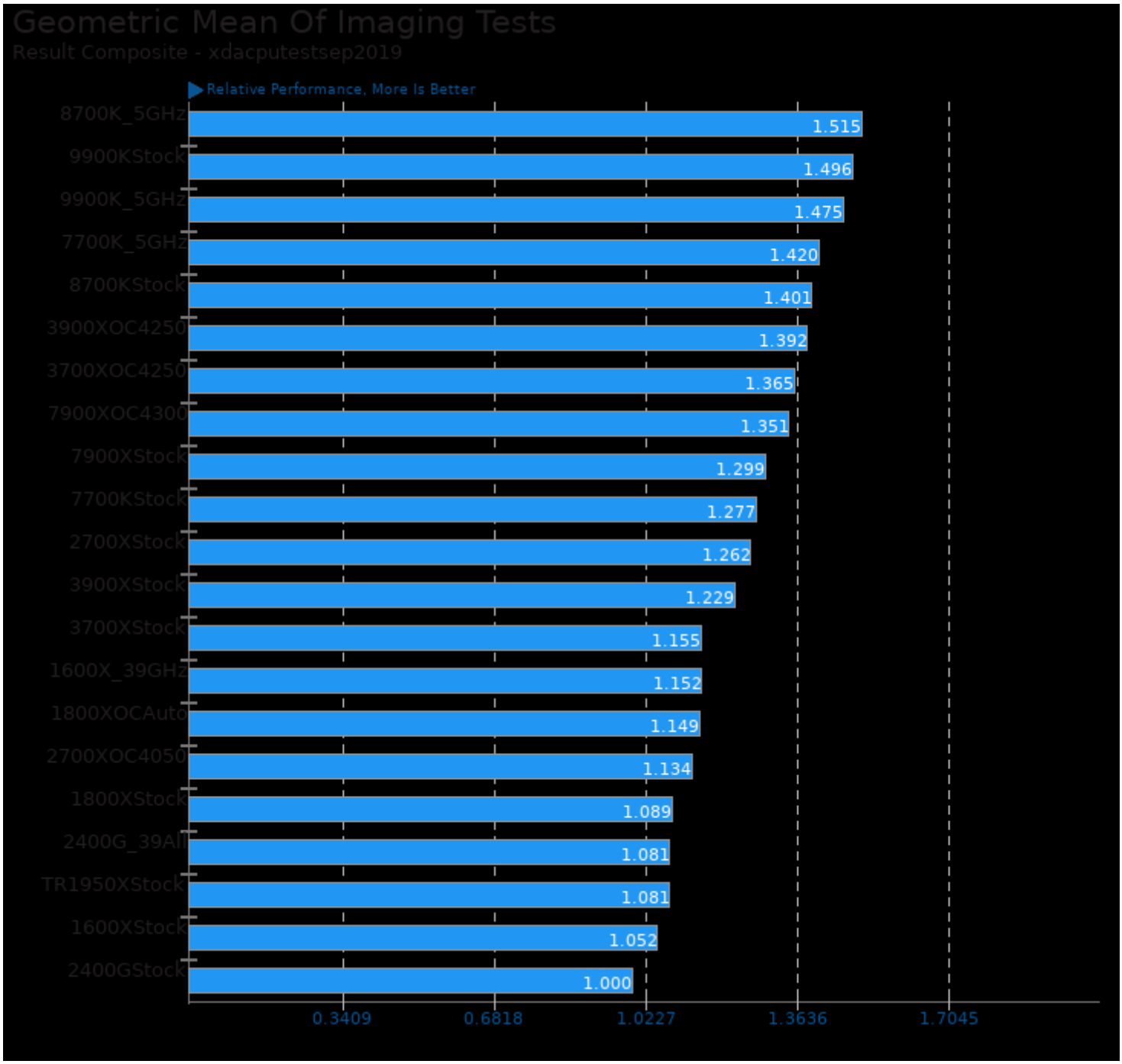
Geometric mean based upon tests: pts/nero2d, pts/cloverleaf, pts/hpcg, pts/npb and pts/ffte

xdacputestsep2019



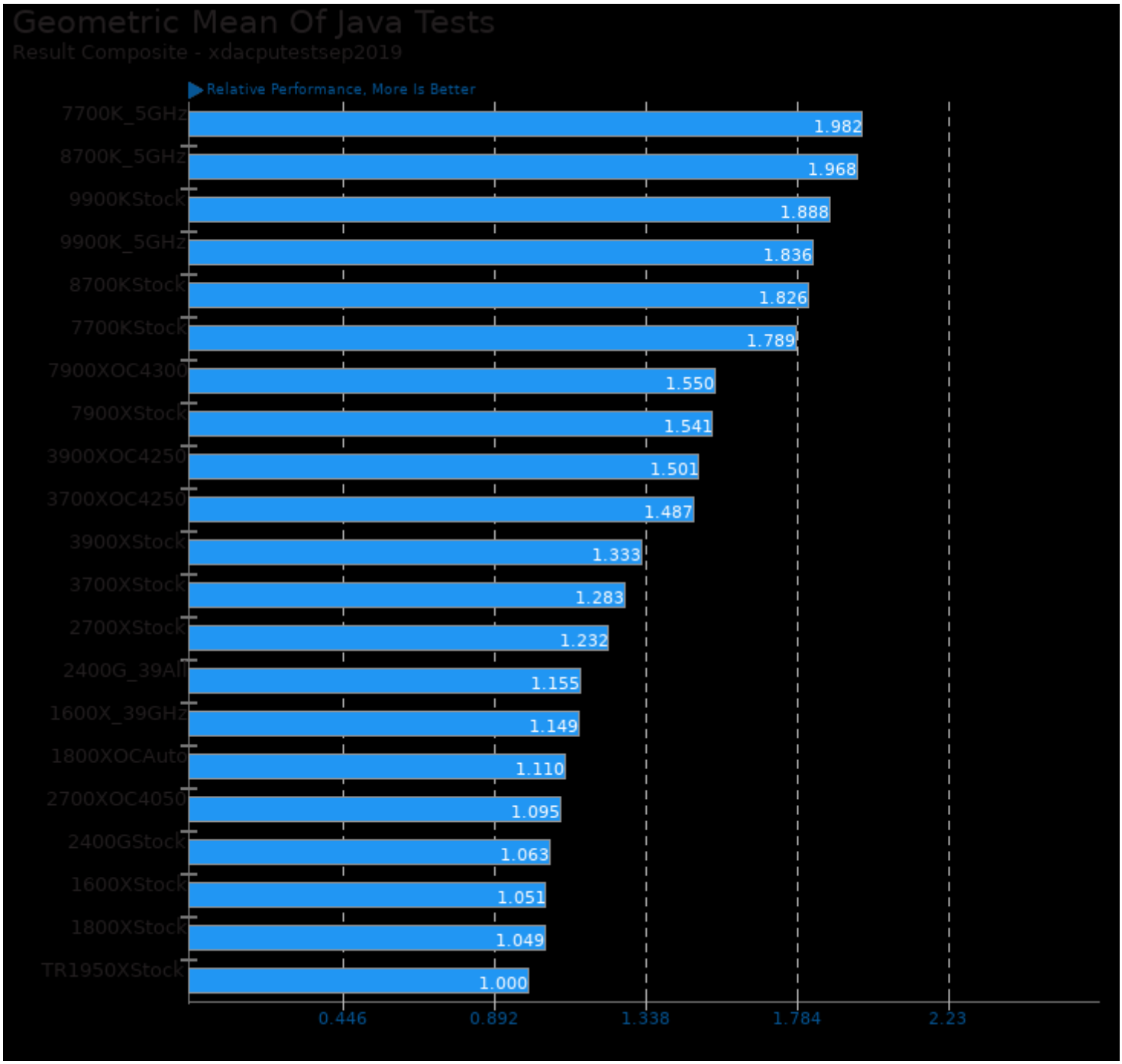
Geometric mean based upon tests: pts/npb, pts/hpcg, pts/ffte, pts/fftw, pts/namd, pts/cp2k, pts/cloverleaf, pts/himeno, pts/mrbayes, pts/hmmer and pts/mafft

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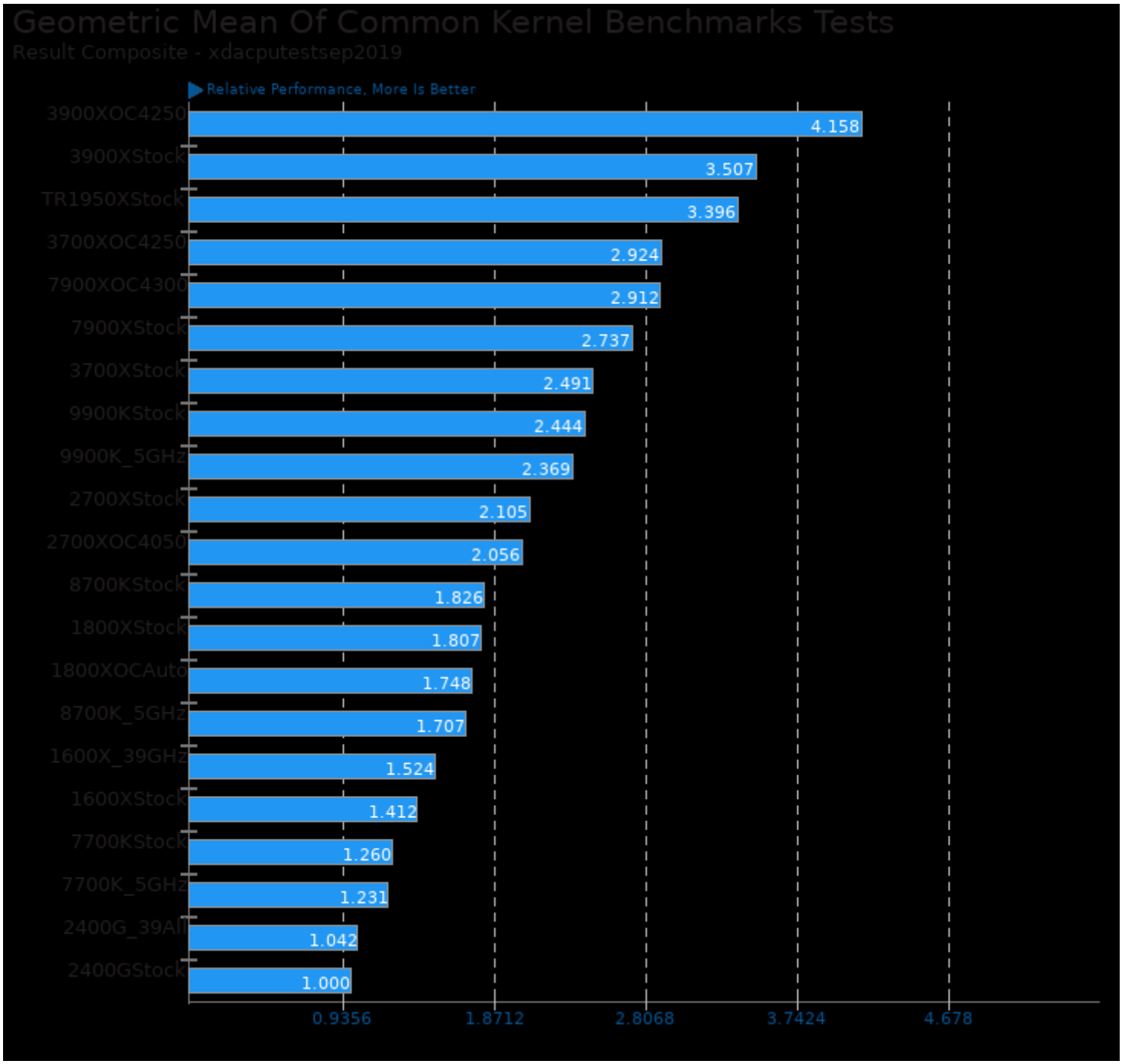


Geometric mean based upon tests: pts/graphics-magick and pts/dcraw

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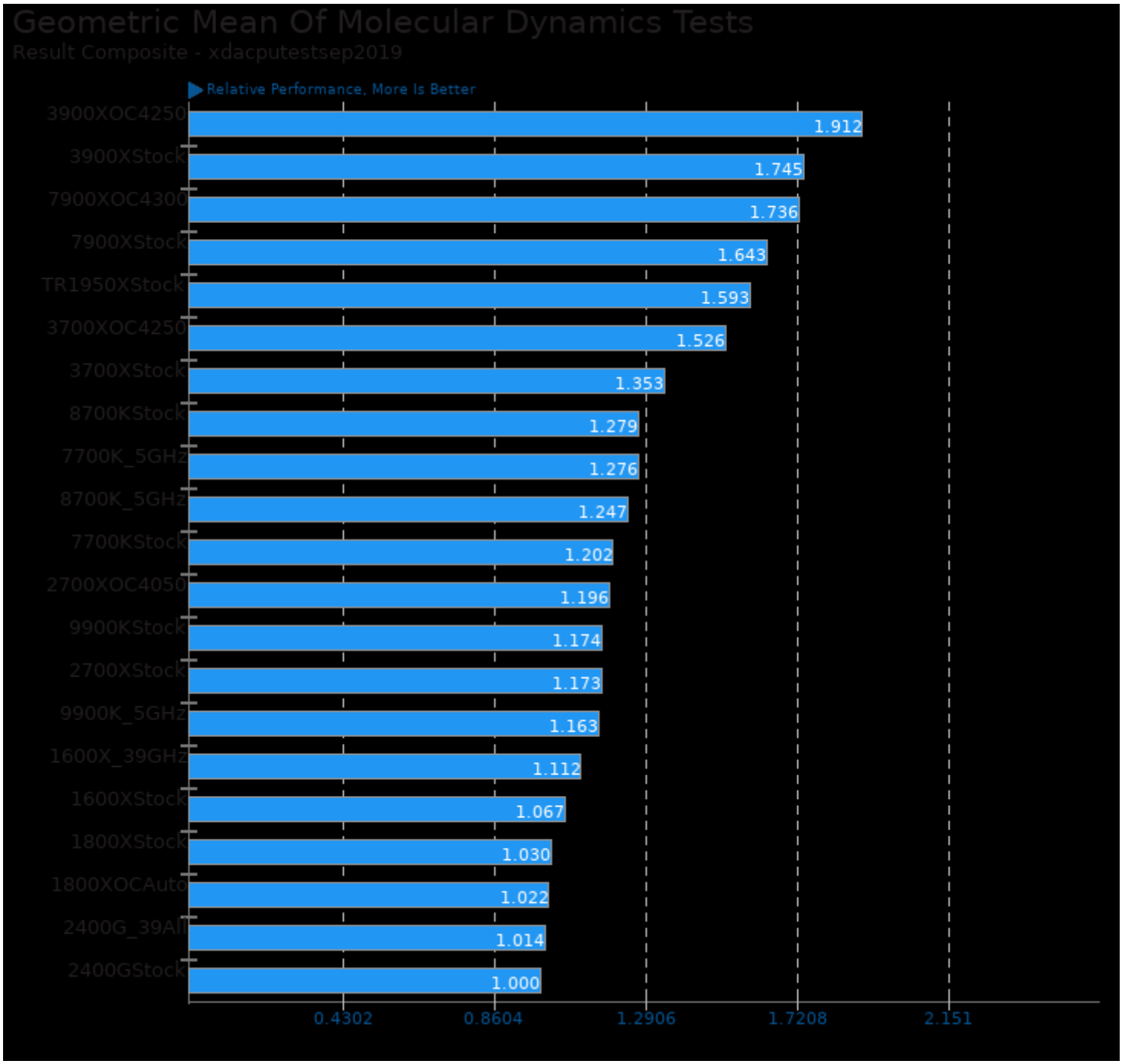


Geometric mean based upon tests: pts/bork, pts/java-scimark2, pts/dacapobench and pts/renaissance



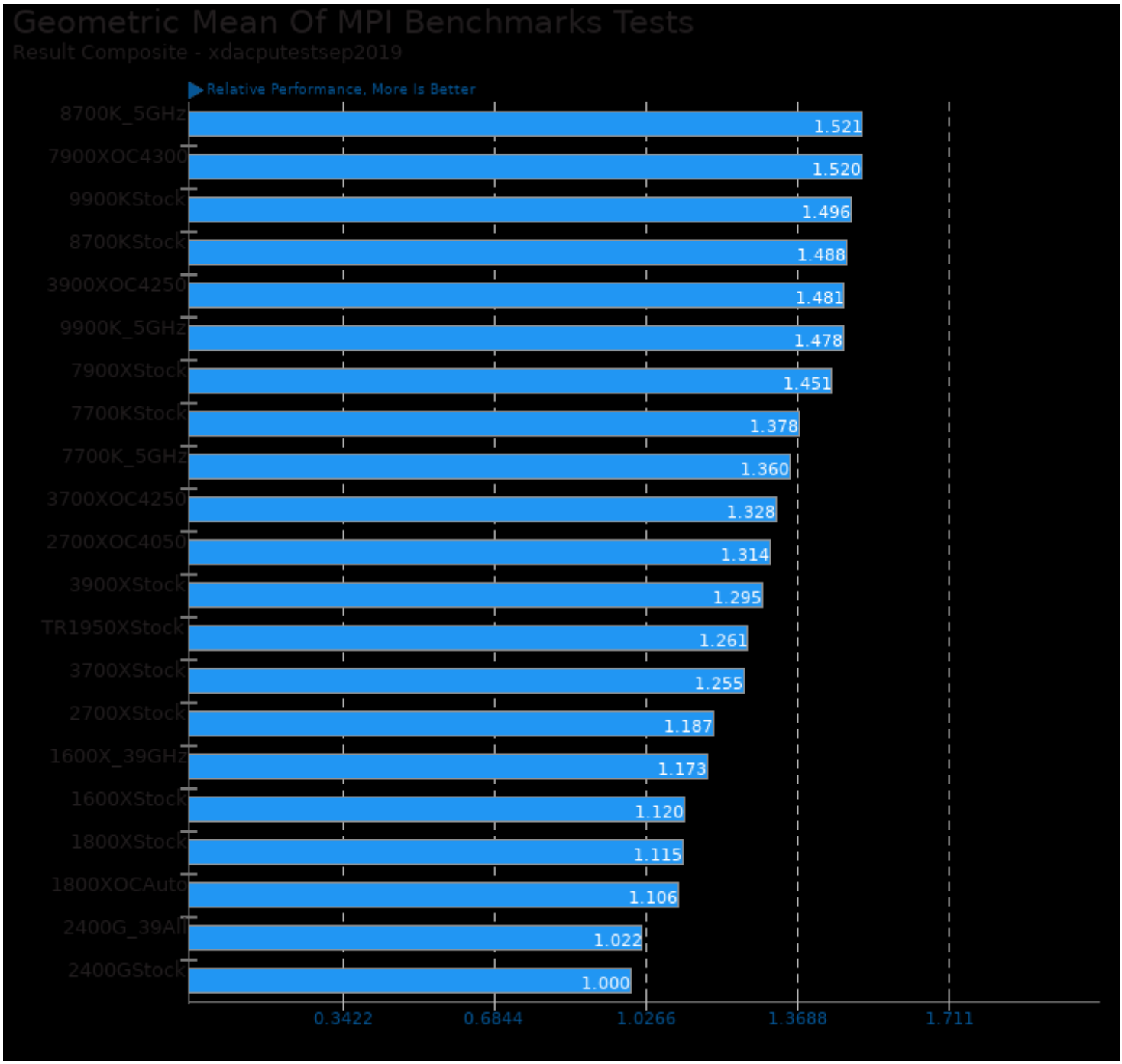
Geometric mean based upon tests: pts/openssl and pts/hackbench

xdacputestsep2019



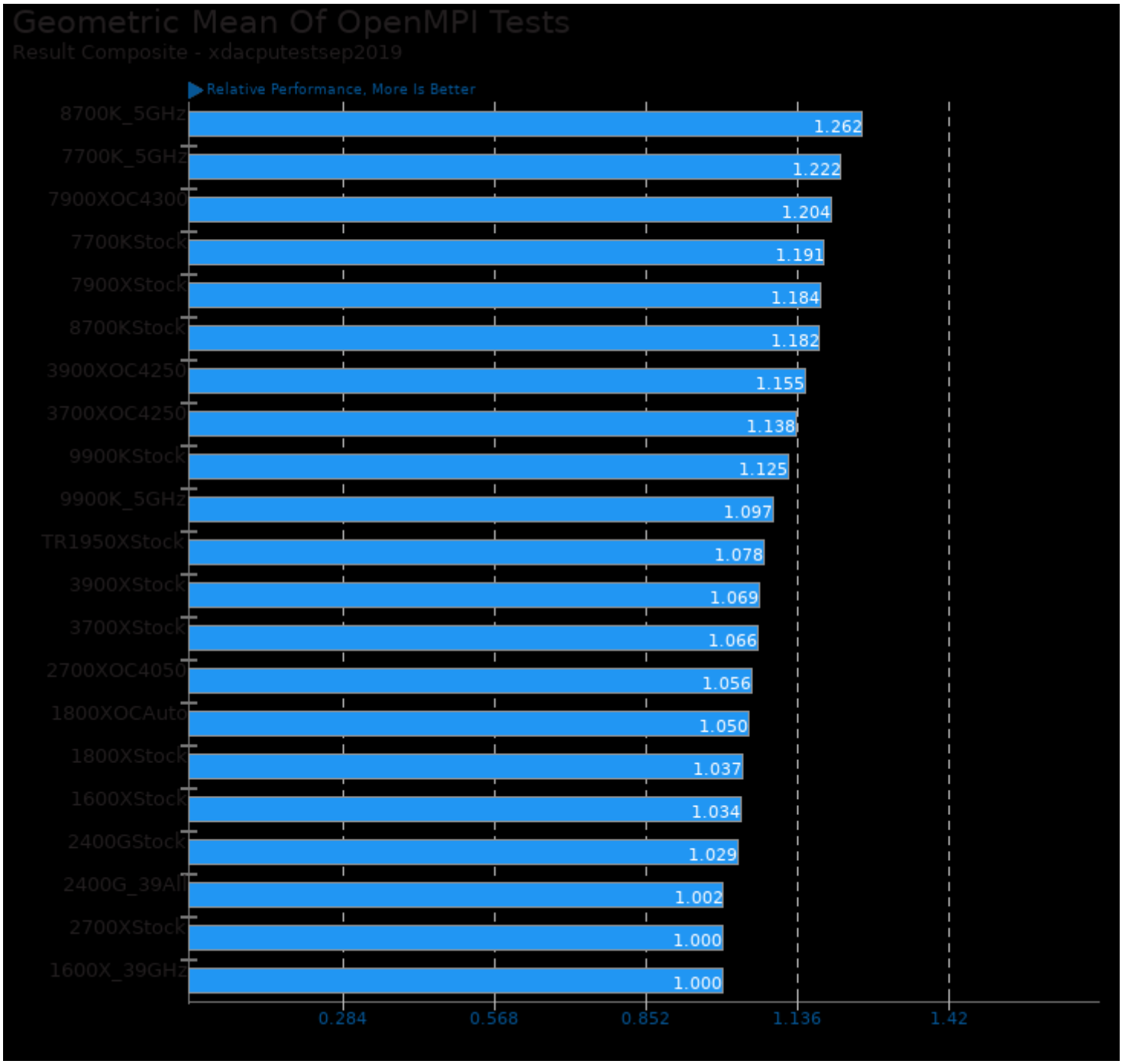
Geometric mean based upon tests: pts/namd, pts/cp2k and pts/cloverleaf

xdacputestsep2019



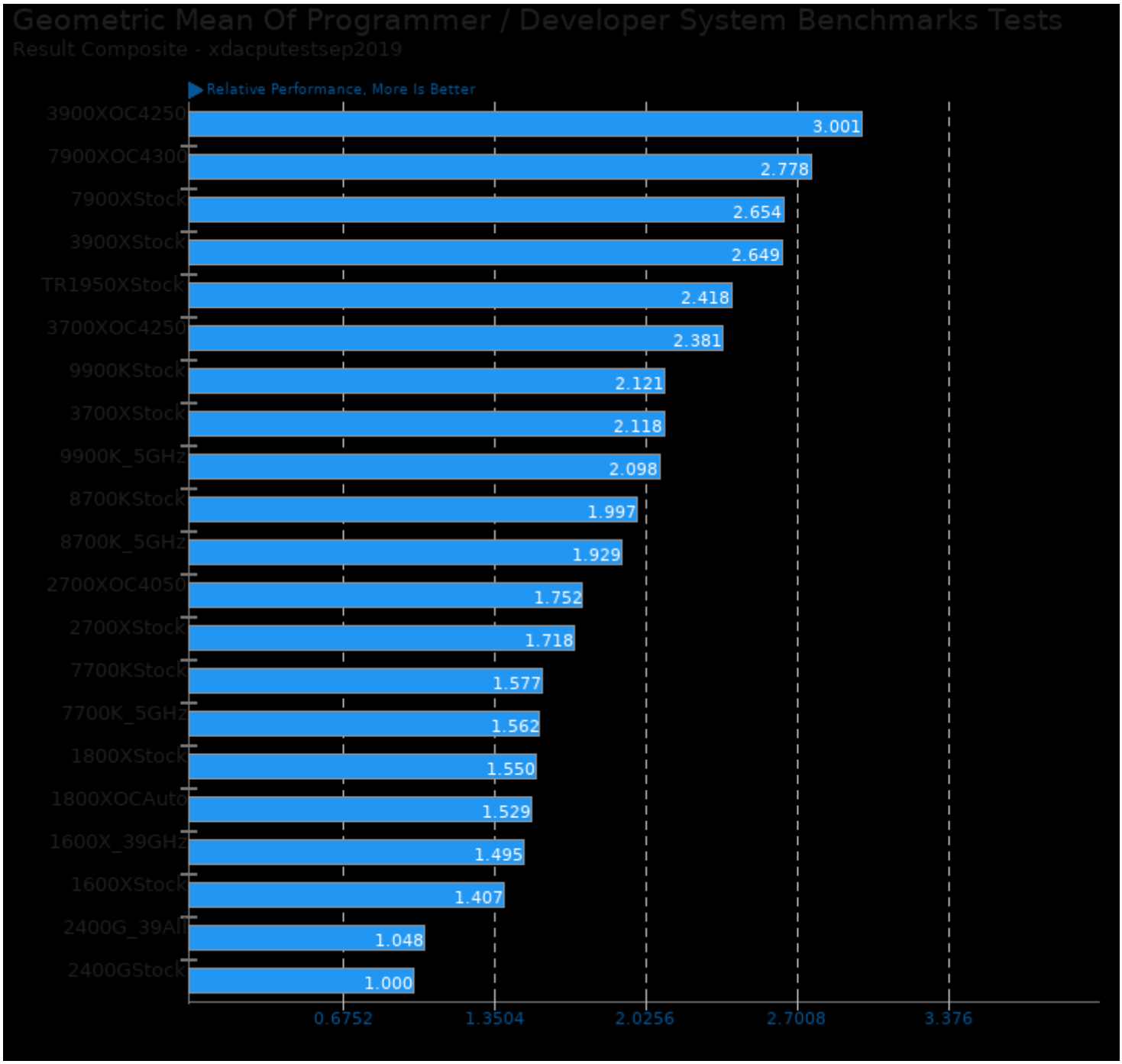
Geometric mean based upon tests: pts/nero2d, pts/hpcg, pts/mrbayes and pts/npb

xdacputestsep2019



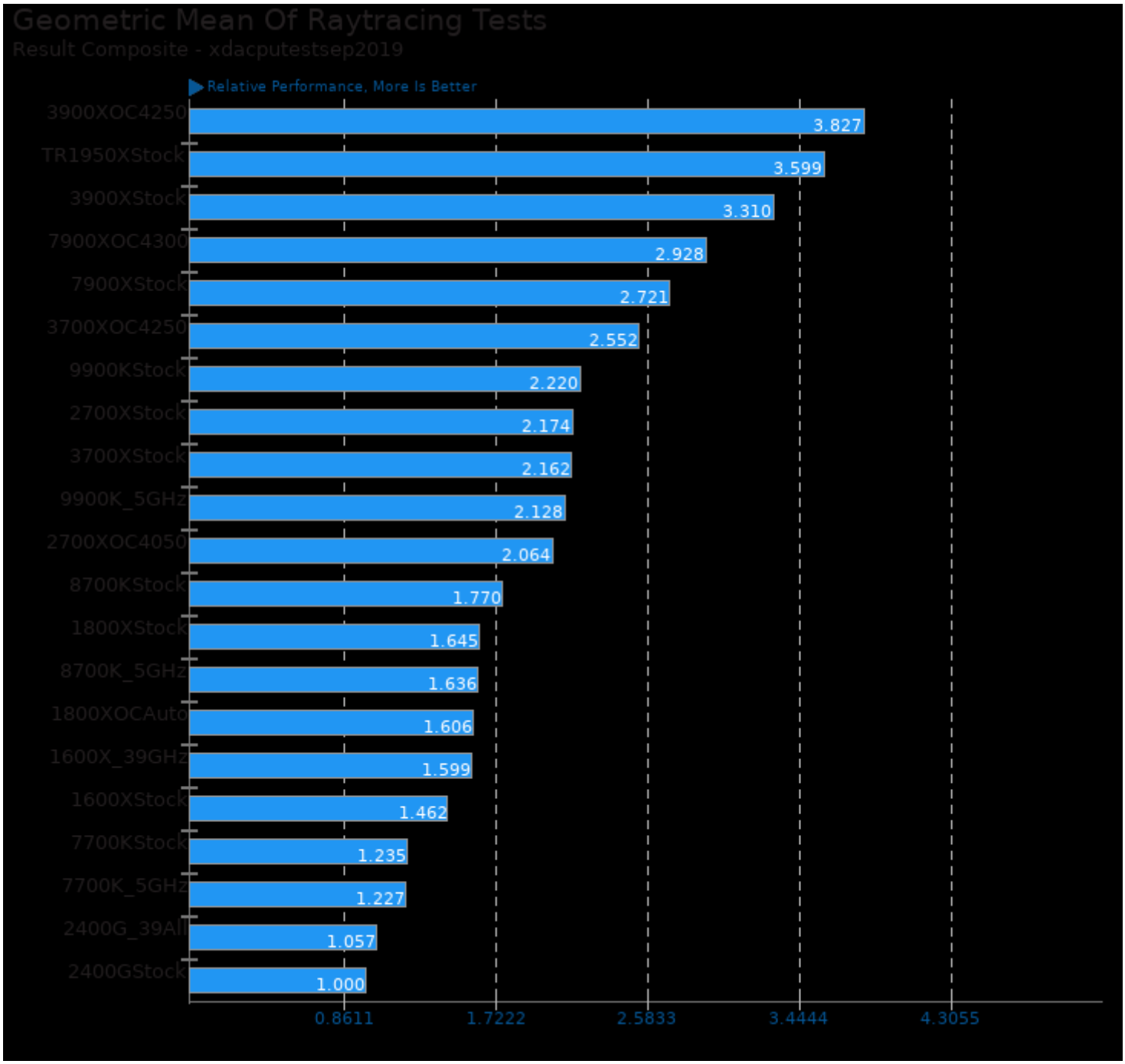
Geometric mean based upon tests: pts/nero2d, pts/cloverleaf, pts/clomp, pts/npb and pts/ffte

xdacputestsep2019



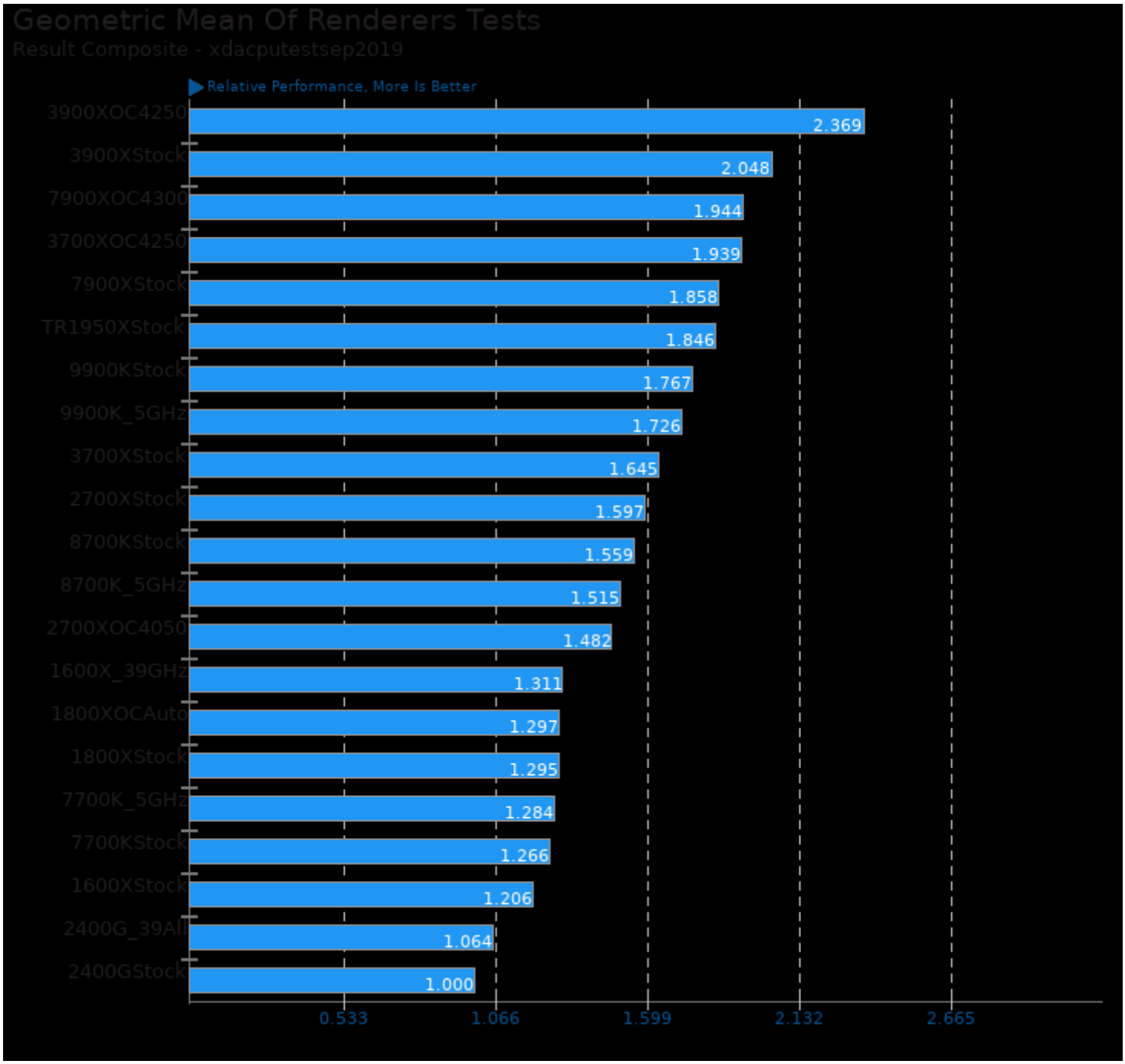
Geometric mean based upon tests: pts/compress-zstd, pts/build-php, pts/build-linux-kernel, pts/build-imagemagick, pts/build-gcc and pts/build-llvm

xdacputestsep2019



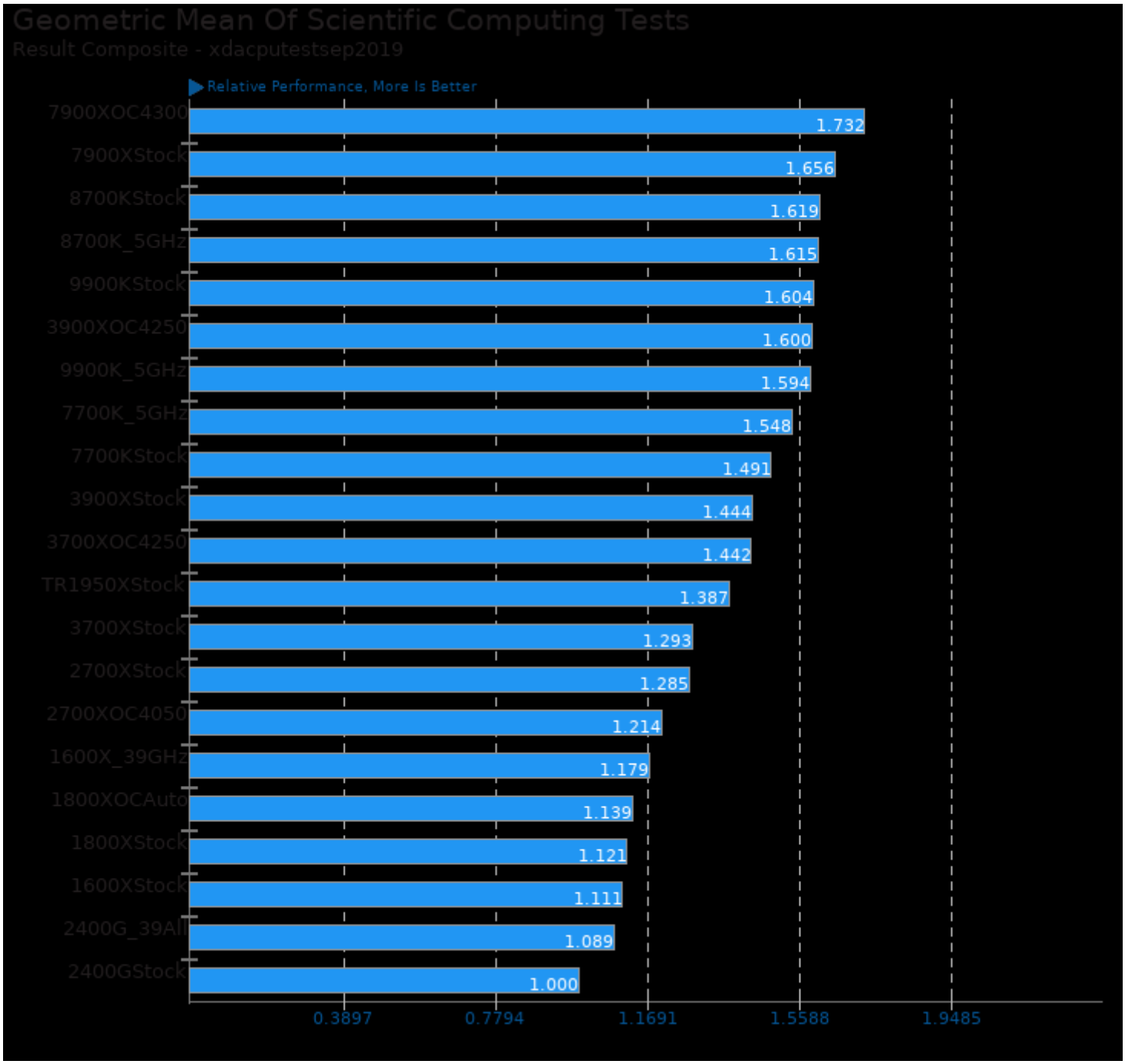
Geometric mean based upon tests: pts/c-ray, pts/tachyon and pts/povray

xdacputestsep2019



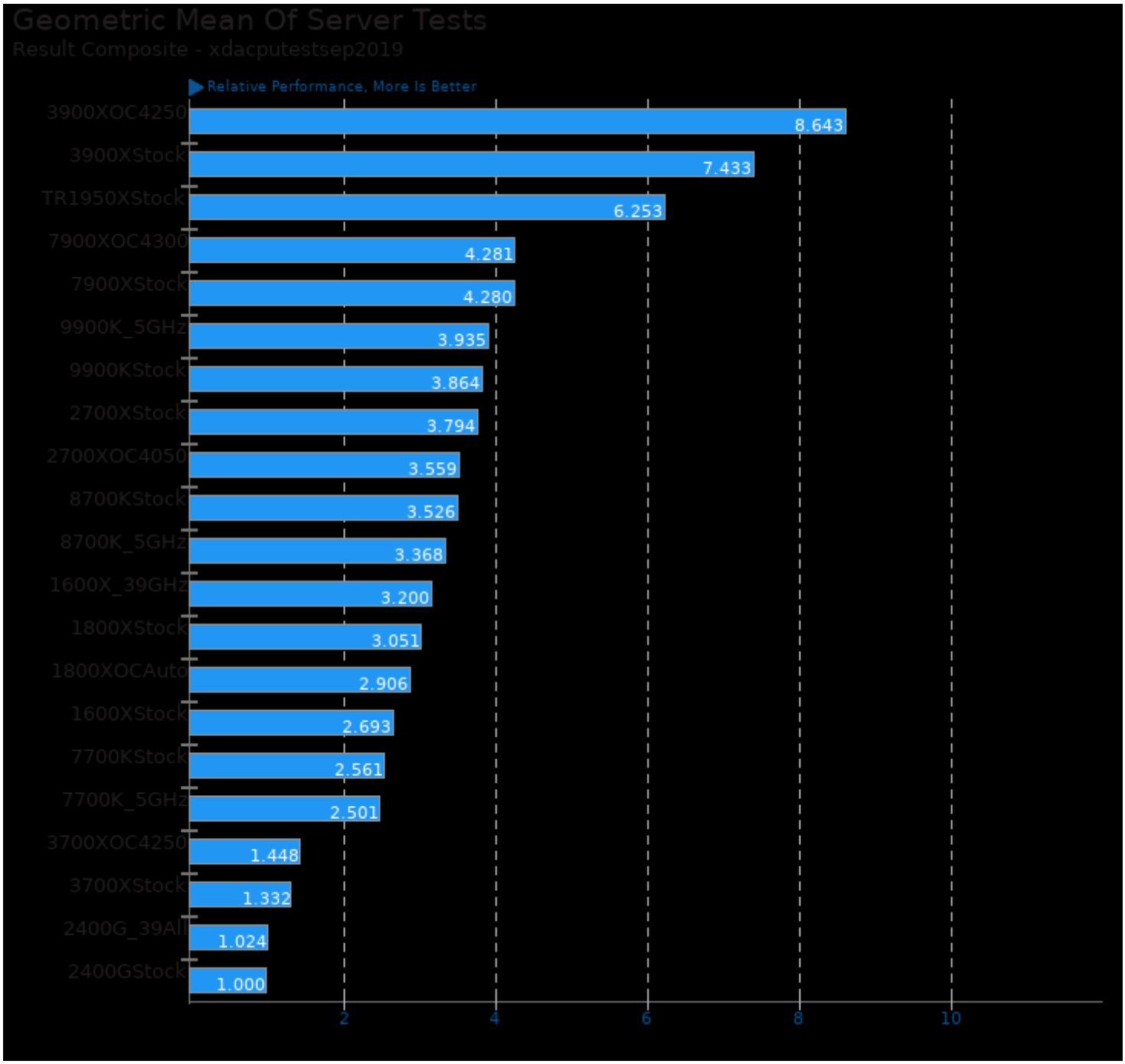
Geometric mean based upon tests: pts/c-ray, pts/tachyon, pts/povray, pts/radiance, pts/aobench, pts/smallpt and pts/ttsiod-renderer

xdacputestsep2019



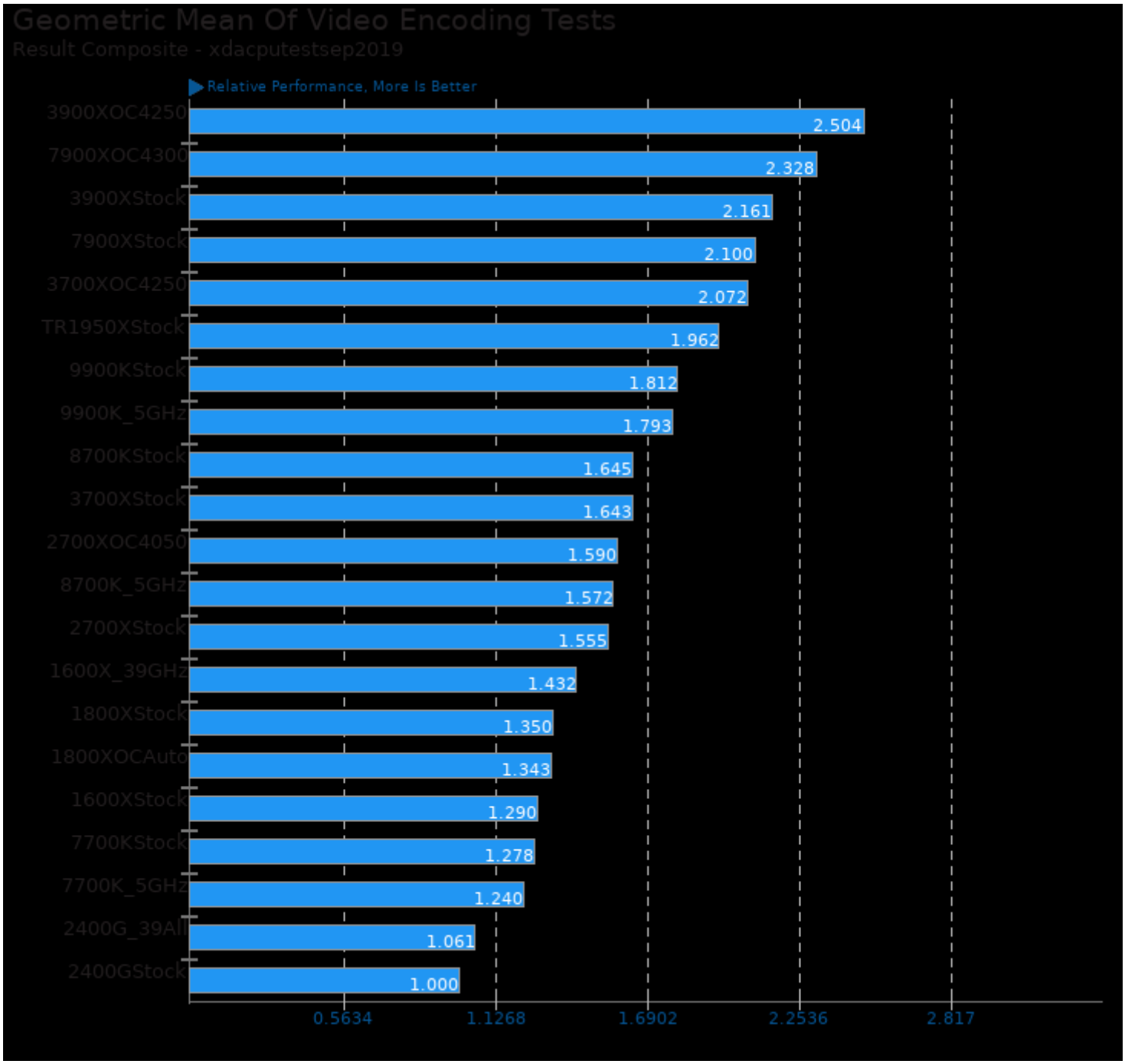
Geometric mean based upon tests: pts/ffte, pts/fftw, pts/namd, pts/cp2k, pts/cloverleaf, pts/himeno, pts/mrbayes, pts/hmmer and pts/mafft

xdacputestsep2019

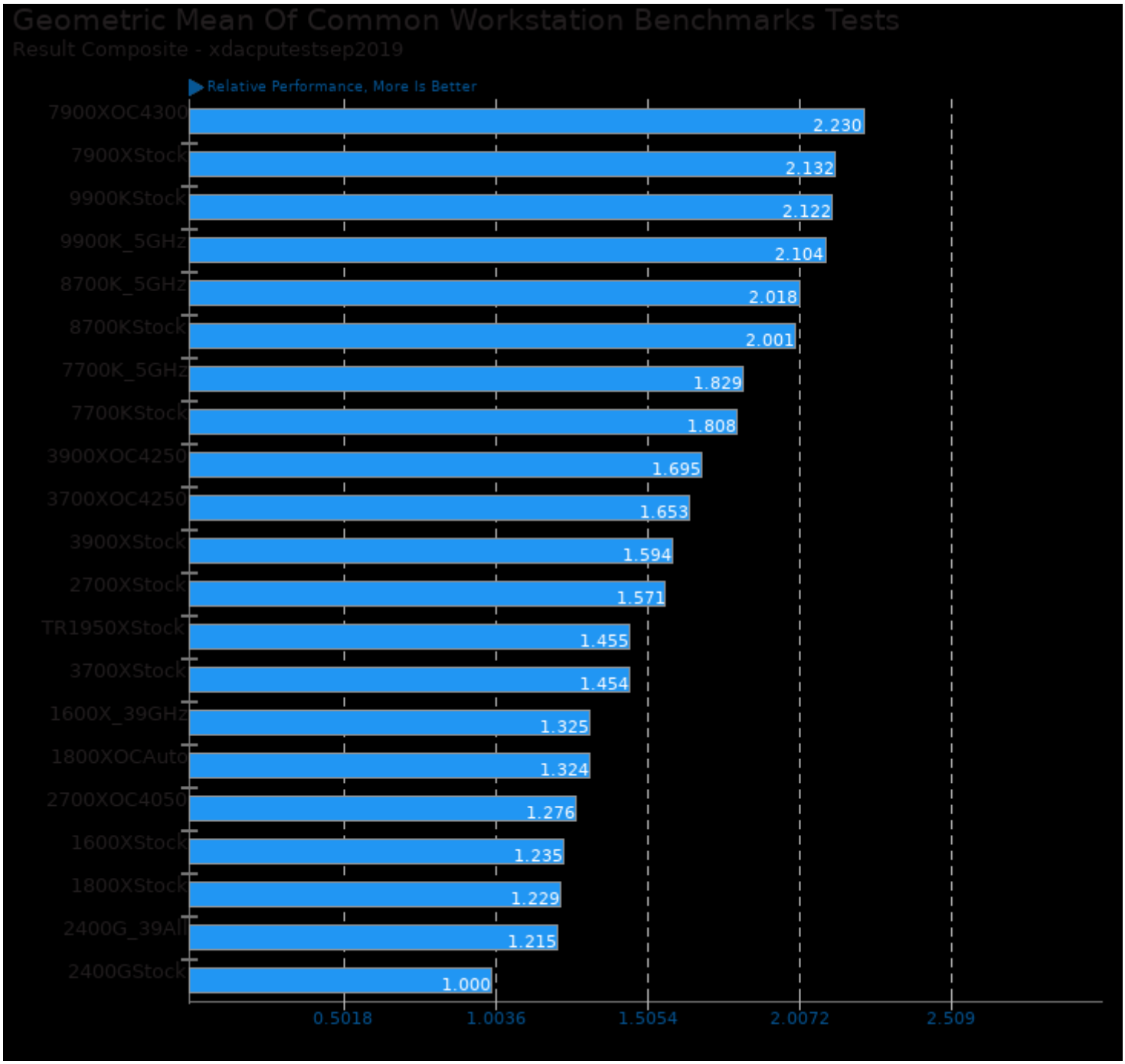


Geometric mean based upon tests: pts/ebizzy, pts/openssl and pts/perl-benchmark

xdacputestsep2019



Geometric mean based upon tests: pts/svt-vp9, pts/svt-hevc, pts/x264, pts/x265, pts/ffmpeg, pts/vpxenc and pts/svt-av1



Geometric mean based upon tests: pts/himeno, pts/x265 and pts/swet

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 06:47.