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BenchMarxAsusk555lb

Intel Core i7-9750H testing with a Dell 0CRKJ6 (1.14.0 BIOS) and Intel CoffeeLake-H GT2 [UHD 630] 3GB on Fedora 34 via the Phoronix Test Suite.

Automated Executive Summary

G5-5590 had the most wins, coming in first place for 83% of the tests.

Based on the geometric mean of all complete results, the fastest (G5-5590) was 2.559x the speed of the slowest (Arch-5.11.17-lqx1-1-lqx).

Test Systems:

Arch-5.11.16-arch1-1

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek

RTL8111/8168/8411 + Intel 7265

OS: EndeavourOS rolling, Kernel: 5.11.16-arch1-1 (x86_64), Desktop: GNOME Shell 40.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.2.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x2f
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Arch-5.11.16-zen1-1-zen

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: EndeavourOS rolling, Kernel: 5.11.16-zen1-1-zen (x86_64), Desktop: GNOME Shell 40.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.2.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x2f
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Arch-5.10.33-1-clear

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: EndeavourOS rolling, Kernel: 5.10.33-1-clear (x86_64), Desktop: GNOME Shell 40.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.2.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x2f
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Arch-5.12.0-xanmod1-2

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: EndeavourOS rolling, Kernel: 5.12.0-xanmod1-2 (x86_64), Desktop: GNOME Shell 40.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.2.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x2f
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Arch-5.11.17-lqx1-1-lqx

Processor: Intel Core i5-5200U @ 2.20GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: EndeavourOS rolling, Kernel: 5.11.17-lqx1-1-lqx (x86_64), Desktop: GNOME Shell 40.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.2.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu
Processor Notes: Scaling Governor: acpi-cpufreq performance (Boost: Enabled) - CPU Microcode: 0x2f
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Arch-5.12.0-xanmod1-2-march=native

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: EndeavourOS rolling, Kernel: 5.12.0-xanmod1-2 (x86_64), Desktop: GNOME Shell 40.1, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.2.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --disable-libssp --disable-libstdcxx-pch --disable-libunwind-exceptions --disable-werror --enable-__cxa_atexit --enable-cet=auto --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-default-ssp --enable-gnu-indirect-function --enable-gnu-unique-object --enable-install-libiberty --enable-languages=c,c++,ada,fortran,go,lto,objc,obj-c++,d --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-isl --with-linker-hash-style=gnu

Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x2f
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Clear-5.10.33-1036.native

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12GB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: ASUS Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: Clear Linux OS 34560, Kernel: 5.10.33-1036.native (x86_64), Desktop: GNOME Shell 40.0, Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 11.1.1 20210428 releases/gcc-11.1.0-24-g6f60fd21fd + Clang 11.1.0 + LLVM 11.1.0, File-System: xfs, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: always
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" MESA_GLSL_CACHE_DISABLE=0 FCFLAGS="-g -O3 -feliminate-unused-debug-types -pipe -Wall -Wp,-D_FORTIFY_SOURCE=2 -fexceptions -fstack-protector --param=ssp-buffer-size=32 -m64 -fasynchronous-unwind-tables -Wp,-D_REENTRANT -ftree-loop-distribute-patterns -Wl,-z -Wl,now -Wl,-z -Wl,relro -malign-data=abi -fno-semantic-interposition -ftree-vectorize -ftree-loop-vectorize -Wl,-sort-common -Wl,--enable-new-dtags" CFLAGS="-O3 -LTO -march=native -mtune=native" THEANO_FLAGS="floatX=float32,openmp=true,gcc.cxxflags="-ftree-vectorize -mavx""
Compiler Notes: --build=x86_64-generic-linux --disable-libmpx --disable-libunwind-exceptions --disable-multiarch --disable-vtable-verify --disable-werror --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-clocale=gnu --enable-default-pie --enable-gnu-indirect-function --enable-languages=c,c++,fortran,go --enable-ld=default --enable-libstdcxx-pch --enable-lto --enable-multilib --enable-plugin --enable-shared --enable-threads=posix --exec-prefix=/usr --includedir=/usr/include --target=x86_64-generic-linux --with-arch=westmere --with-gcc-major-version-only --with-glibc-version=2.19 --with-gnu-ld --with-isl --with-ppl=yes --with-tune=haswell
Processor Notes: Scaling Governor: intel_cpufreq performance - CPU Microcode: 0x2f - Thermald 2.4.4
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

fedora34-5.11.17-300.fc34.x86_64

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12288MB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: Intel HD 5500 3GB, Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: Fedora 34, Kernel: 5.11.17-300.fc34.x86_64 (x86_64), Desktop: GNOME Shell 40.0, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 11.1.1 20210428, File-System: btrfs, Screen Resolution: 1920x1080

Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,d,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: intel_cpufreq performance
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

fedora34-5.12.0-xanmod1.1.fc34

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12288MB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: Intel HD 5500 3GB, Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: Fedora 34, Kernel: 5.12.0-xanmod1.1.fc34 (x86_64), Desktop: GNOME Shell 40.0, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 11.1.1 20210428, File-System: btrfs, Screen Resolution: 1920x1080

Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,d,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: intel_cpufreq performance
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

fedora34-5.12.0-xanmod1_cacule.1.fc34

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Chipset: Intel Broadwell-U-OPI, Memory: 12288MB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: Intel HD 5500 3GB (900MHz), Audio: Intel Broadwell-U Audio, Network: Realtek RTL8111/8168/8411 + Intel 7265

OS: Fedora 34, Kernel: 5.12.0-xanmod1_cacule.1.fc34 (x86_64), Desktop: GNOME Shell 40.0, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 11.1.1 20210428, File-System: btrfs, Screen Resolution: 1920x1080

Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,d,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: intel_cpufreq performance
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

fedora34-5.12.1-xanmod1.0.fc34-new

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Memory: 12288MB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: i915drmfb

OS: Fedora 34, Kernel: 5.12.1-xanmod1.0.fc34 (x86_64), Desktop: GNOME Shell, Display Server: Wayland, Compiler: GCC 11.1.1 20210428, File-System: btrfs, Screen Resolution: 1920x1080, System Layer: p an

Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,d,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: intel_cpufreq performance
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

fedora34-5.12.1-xanmod1.0.fc34-new1

Processor: Intel Core i5-5200U @ 2.70GHz (2 Cores / 4 Threads), Motherboard: ASUS X555LB v1.0 (X555LB.505 BIOS), Memory: 12288MB, Disk: 240GB KINGSTON SA400S3 + 1000GB TOSHIBA MQ01ABD1, Graphics: i915drmfb

OS: Fedora 34, Kernel: 5.12.1-xanmod1.0.fc34 (x86_64), Desktop: GNOME Shell, Display Server: Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 11.1.1 20210428, File-System: btrfs, Screen Resolution: 1920x1080, System Layer: p an

Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,d,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: intel_cpufreq performance
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

G5-5590

Processor: Intel Core i7-9750H @ 4.50GHz (6 Cores / 12 Threads), Motherboard: Dell 0CRKJ6 (1.14.0 BIOS), Chipset: Intel Cannon Lake PCH, Memory: 16384MB, Disk: BC501 NVMe SK hynix 256GB + 1000GB Western Digital WD10SPZX-75Z, Graphics: Intel CoffeeLake-H GT2 [UHD 630] 3GB (1150MHz), Audio: Realtek ALC3204, Network: Realtek Device 2502 + Qualcomm Atheros QCA6174 802.11ac

OS: Fedora 34, Kernel: 5.11.18-300.fc34.x86_64 (x86_64), Desktop: GNOME Shell 40.0, Display Server: X Server + Wayland, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 11.1.1 20210428, File-System: btrfs, Screen Resolution: 1920x1080

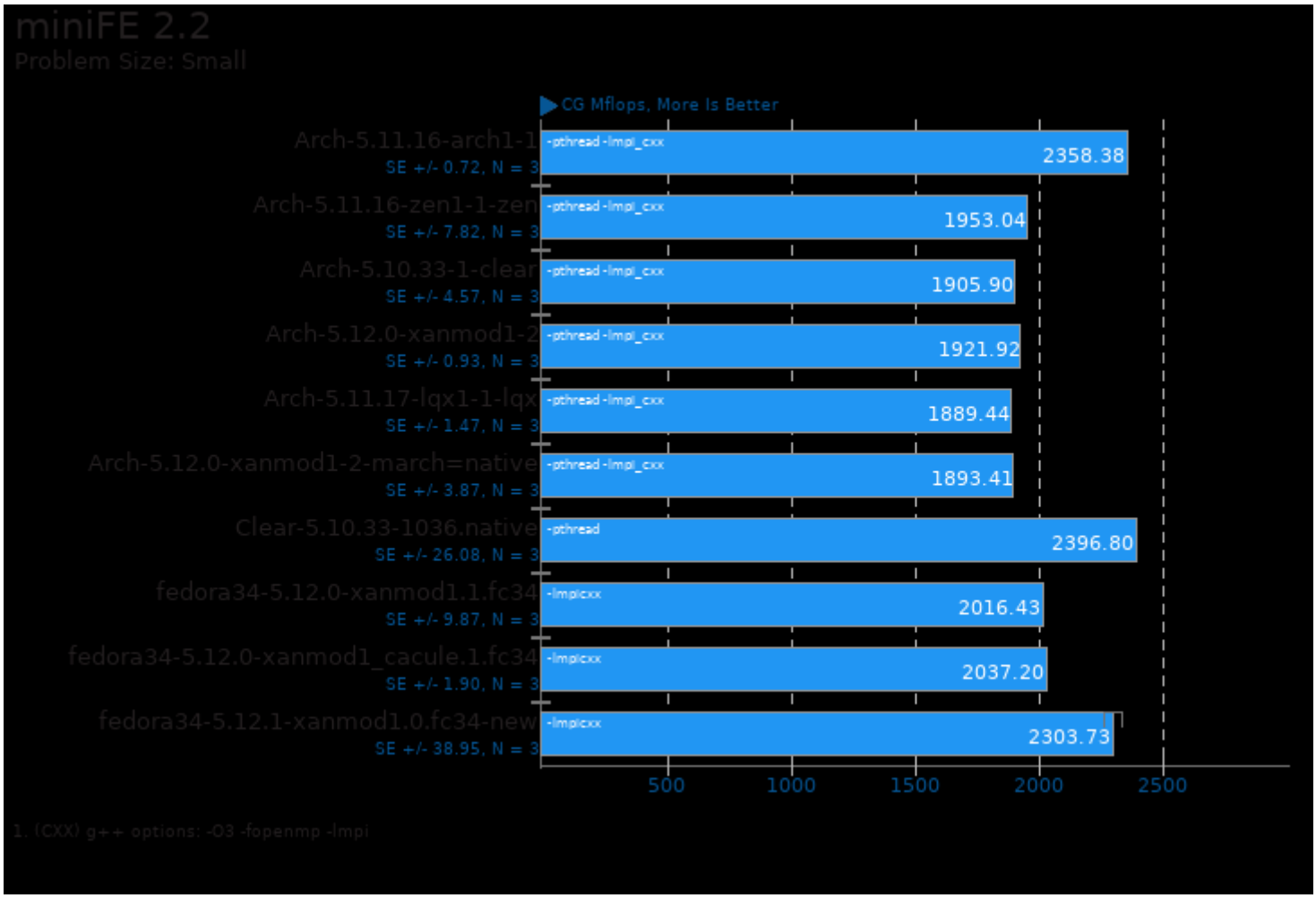
Environment Notes: FFLAGS="-O3 -LTO -march=native -mtune=native" CXXFLAGS="-O3 -LTO -march=native -mtune=native" CFLAGS="-O3 -LTO -march=native -mtune=native"
Compiler Notes: --build=x86_64-redhat-linux --disable-libunwind-exceptions --enable-__cxa_atexit --enable-bootstrap --enable-cet --enable-checking=release --enable-gnu-indirect-function --enable-gnu-unique-object --enable-initfini-array --enable-languages=c,c++,fortran,objc,obj-c++,ada,go,d,lto --enable-multilib --enable-offload-targets=nvptx-none --enable-plugin --enable-shared --enable-threads=posix --mandir=/usr/share/man --with-arch_32=i686 --with-gcc-major-version-only --with-linker-hash-style=gnu --with-tune=generic --without-cuda-driver
Processor Notes: Scaling Governor: intel_pstate powersave
Security Notes: SELinux + itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT vulnerable + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

	Arch-5.11.16-arch1-1	Arch-5.11.16-zen1-1-zen	Arch-5.10.33-1-clear	Arch-5.12.0-xanmod1-2	Arch-5.11.17-lqx1-1-lqx	Arch-5.12.0-xanmod1-2-march=native	Clear-5.10.33-1036.native	fedora 34-5.11.17-300.fc34.x86_64	fedora 34-5.12.0-xanmod1.1.fc34	fedora 34-5.12.0-xanmod1_cacule.1.fc34	fedora 34-5.12.1-xanmod1.0.fc34-new	fedora 34-5.12.1-xanmod1.0.fc34-new1	G5-5590
miniFE - Small (CG Mflops)	2358	1953	1906	1922	1889	1893	2397		2016	2037	2304		
Normalized	98.4%	81.49%	79.52%	80.19%	78.83%	79%	100%		84.13%	85%	96.12%		
Standard Deviation	0.1%	0.7%	0.4%	0.1%	0.1%	0.4%	1.9%		0.8%	0.2%	2.9%		
Dolfyn - C.F.D (sec)	34.487	33.124	34.774	33.029	32.962	33.305	32.971	32.59	32.29	32.39	32.51	33.78	18.56
Normalized	53.82%	56.03%	53.37%	56.19%	56.31%	55.73%	56.29%	56.95%	57.48%	57.3%	57.09%	54.94%	100%
Standard Deviation	1.5%	0.7%	1%	0.7%	0.5%	0.9%	0.6%	0.3%	0.1%	0.3%	1%	10.7%	0.2%

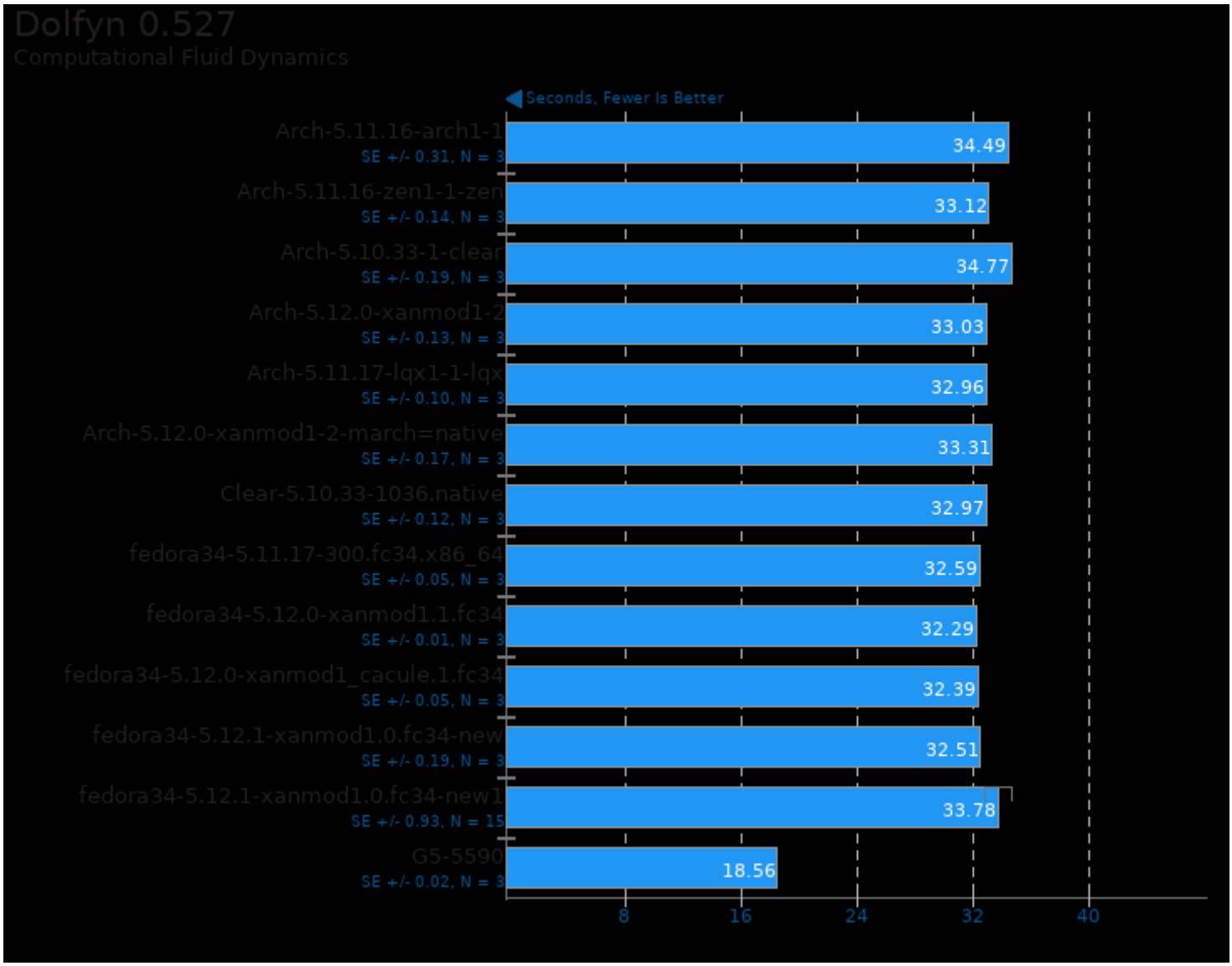
BenchMarxAsusk555lb

Algebraic Multi-Grid Benchmark (Figure Of	880299 53	103234 433	107955 367	111964 167	105566 267	111760 933	103129 400						
Normalized	78.62%	92.2%	96.42%	100%	94.29%	99.82%	92.11%						
Standard Deviation	0.4%	0.5%	0.2%	0.2%	1%	0.4%	1.1%						
SciMark - Composite (Mflops)	1239	1243	1215	1257	1174	1250	1184	1248	1254	1226	1245	1260	3089
Normalized	40.12%	40.23%	39.35%	40.7%	38.01%	40.47%	38.34%	40.42%	40.6%	39.68%	40.3%	40.78%	100%
Standard Deviation	0.4%	0.9%	0.5%	0.5%	0.1%	1%	2.2%	1.1%	1.2%	1.6%	0.1%	1.1%	1.3%
SciMark - Monte Carlo	548.68	548.29	524.34	550.18	514.21	544.33	547.91	515.69	553.79	558.13	549.01	550.35	957.68
Normalized	57.29%	57.25%	54.75%	57.45%	53.69%	56.84%	57.21%	53.85%	57.83%	58.28%	57.33%	57.47%	100%
Standard Deviation	0.6%	0.4%	0%	0.3%	0%	0.6%	0.2%	13.4%	0.1%	0.2%	0.2%	0.3%	0.3%
SciMark - F.F.T (Mflops)	235.64	180.29	184.17	218.20	204.58	226.37	168.54	229.12	211.31	195.81	226.32	221.88	535.95
Normalized	43.97%	33.64%	34.36%	40.71%	38.17%	42.24%	31.45%	42.75%	39.43%	36.54%	42.23%	41.4%	100%
Standard Deviation	0.1%	0.7%	1.6%	0.2%	1.7%	1.4%	0.9%	0.3%	0.7%	2.8%	0.1%	1.1%	1%
SciMark - S.M.M (Mflops)	1599	1570	1518	1592	1466	1556	1555	1557	1625	1593	1581	1645	2897
Normalized	55.2%	54.2%	52.39%	54.96%	50.62%	53.7%	53.66%	53.75%	56.1%	54.97%	54.56%	56.77%	100%
Standard Deviation	4.3%	0.4%	0.4%	0.6%	1.2%	1.2%	0.4%	0.2%	0.4%	1.4%	0.5%	0.3%	0.8%
SciMark - D.L.M.F	2347	2453	2445	2468	2326	2470	2195	2480	2420	2322	2406	2416	8835
Normalized	26.57%	27.77%	27.68%	27.93%	26.33%	27.95%	24.84%	28.08%	27.39%	26.28%	27.24%	27.35%	100%
Standard Deviation	2.5%	2.5%	0.2%	1.3%	0.7%	1.6%	5.6%	0.2%	3.4%	5%	0.2%	2.7%	2.5%
SciMark - J.S.O.R	1465	1461	1406	1458	1360	1455	1456	1460	1460	1460	1462	1466	2220
Normalized	66%	65.84%	63.33%	65.68%	61.27%	65.56%	65.6%	65.77%	65.78%	65.79%	65.89%	66.03%	100%
Standard Deviation	0.3%	0.3%	1.4%	0.1%	0.1%	0.1%	0.3%	0.1%	0%	0%	0.3%	0.1%	0.4%
ArrayFire - BLAS CPU	135.63 1	140.09 0	139.81 1	140.22 2	139.71 5	140.57 6	139.69 4	138.12	140.36	137.41	138.41	140.10	579.49
Normalized	23.41%	24.17%	24.13%	24.2%	24.11%	24.26%	24.11%	23.83%	24.22%	23.71%	23.88%	24.18%	100%
Standard Deviation	0.2%	0.2%	0.4%	0.4%	0.4%	0%	0.6%	0.8%	0.1%	0.2%	1%	0.2%	0.9%
ArrayFire - C.G.C (ms)	45.46	42.39	41.04	40.35	46.56	44.78	47.90	41.72	43.99	67.86	51.95	46.30	21.64
Normalized	47.6%	51.05%	52.73%	53.63%	46.48%	48.33%	45.18%	51.87%	49.19%	31.89%	41.66%	46.74%	100%
Standard Deviation	0.3%	0.7%	2.7%	1.1%	2.1%	2.3%	0.3%	1.1%	0.5%	2.1%	2.5%	2.8%	0.9%
7-Zip Compression - C.S.T (MIPS)	7768	8894	9011	8539	7094	8544	8662	8244	8313	8386	8204	8508	34338
Normalized	22.62%	25.9%	26.24%	24.87%	20.66%	24.88%	25.23%	24.01%	24.21%	24.42%	23.89%	24.78%	100%
Standard Deviation	1.7%	1.1%	0.5%	1.4%	0.8%	1.1%	1.9%	0.6%	1.9%	0.5%	1.9%	0.1%	1.9%

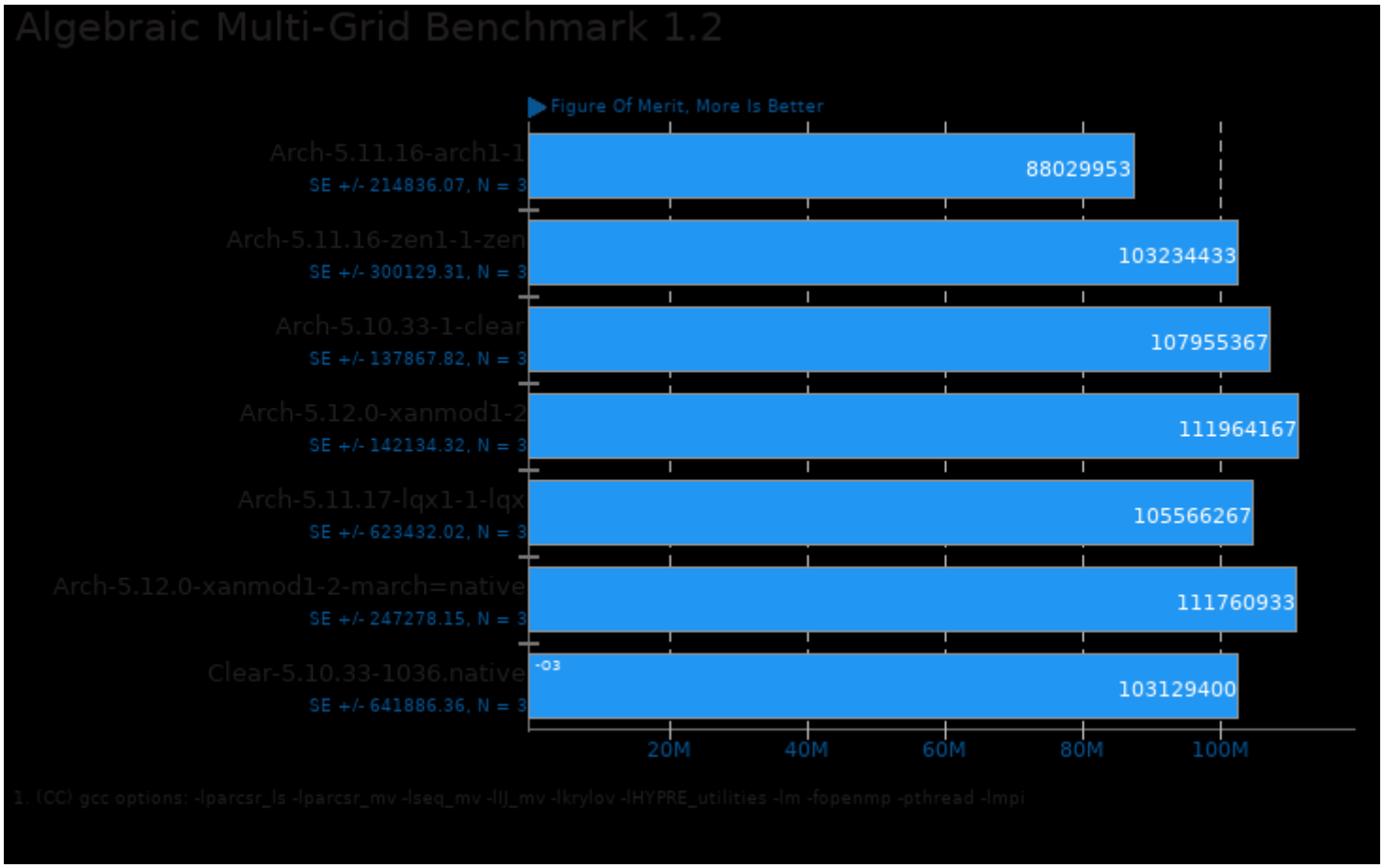
BenchMarxAsusk555lb



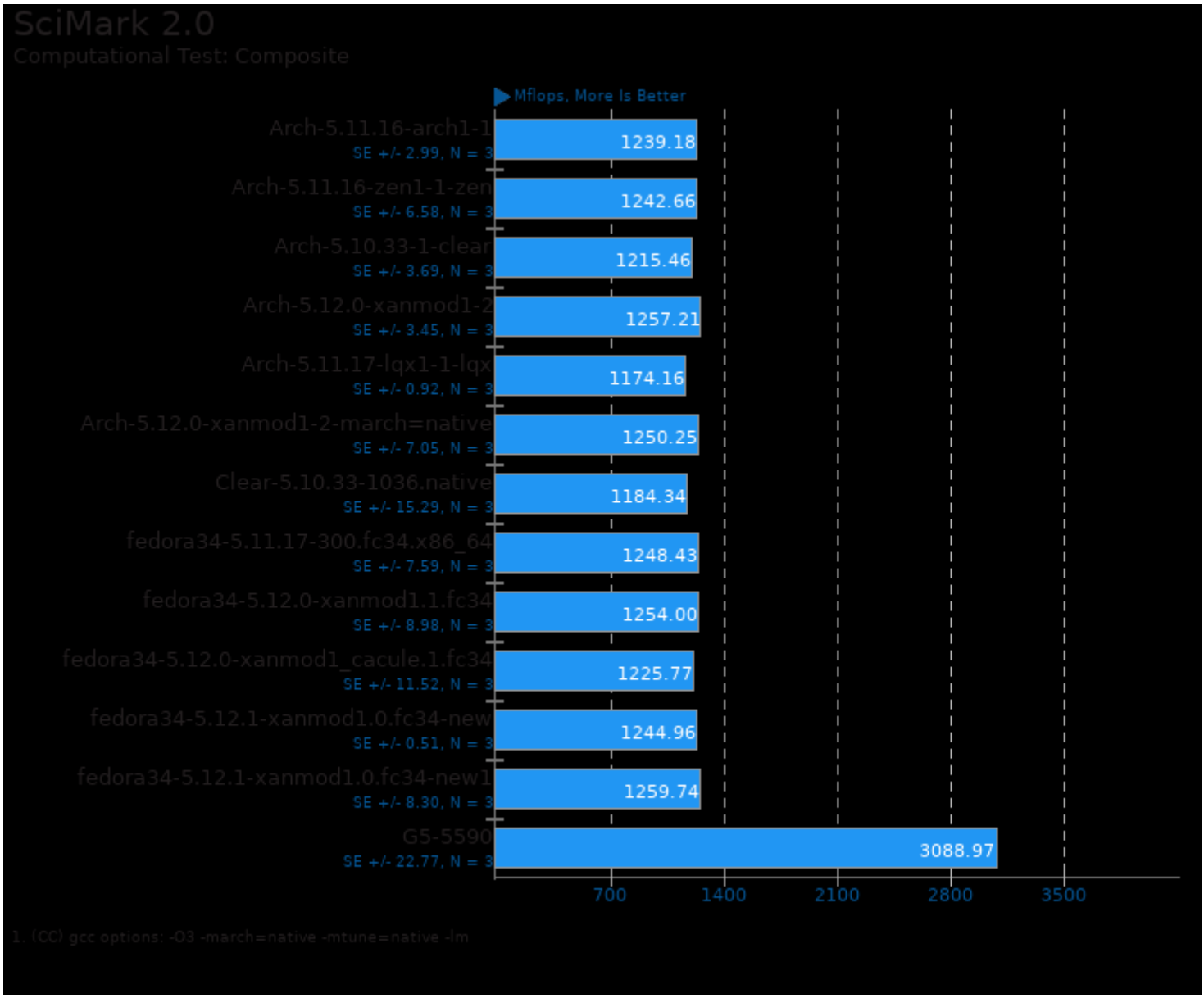
BenchMarxAsusk555lb



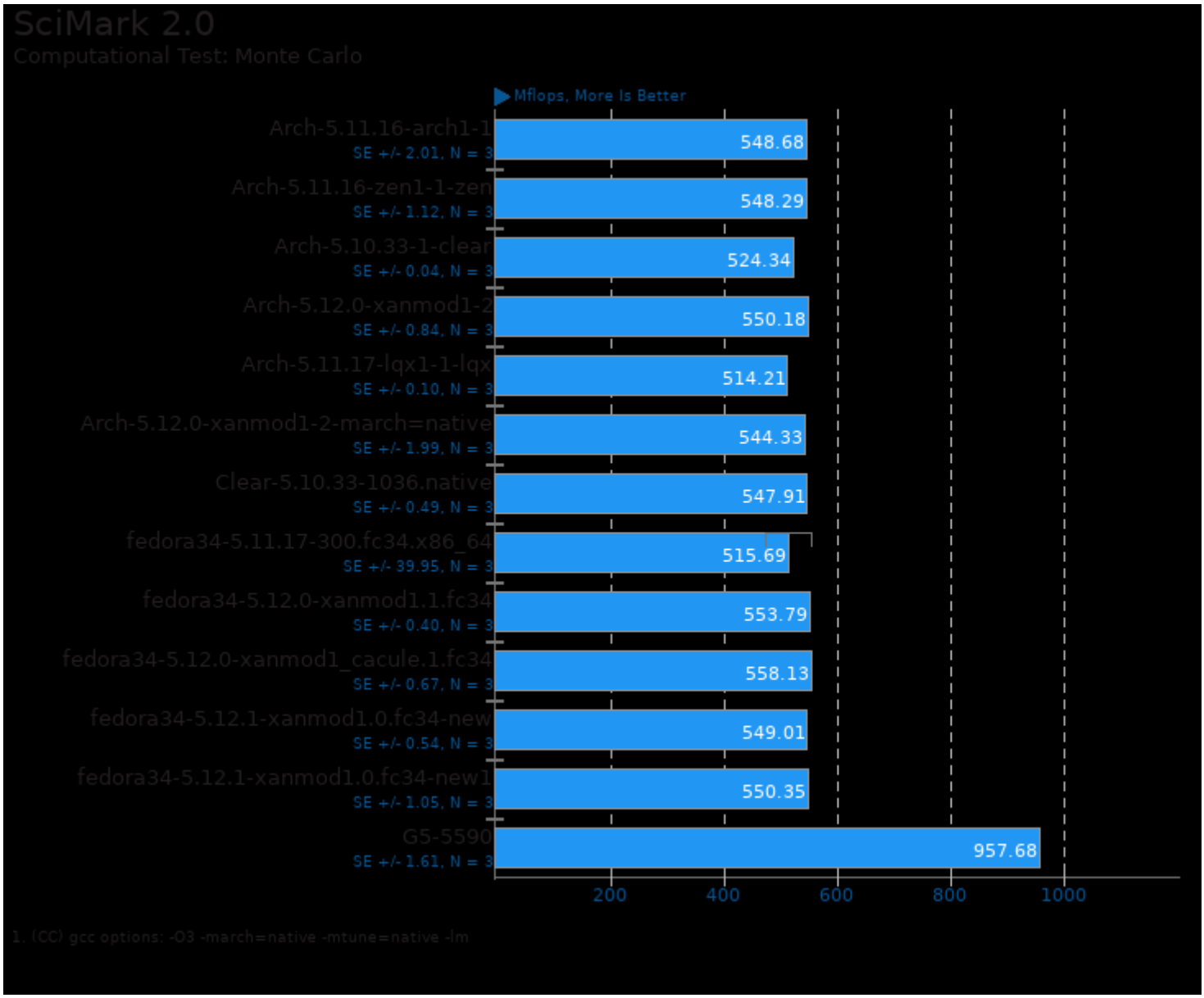
BenchMarxAsusk555lb



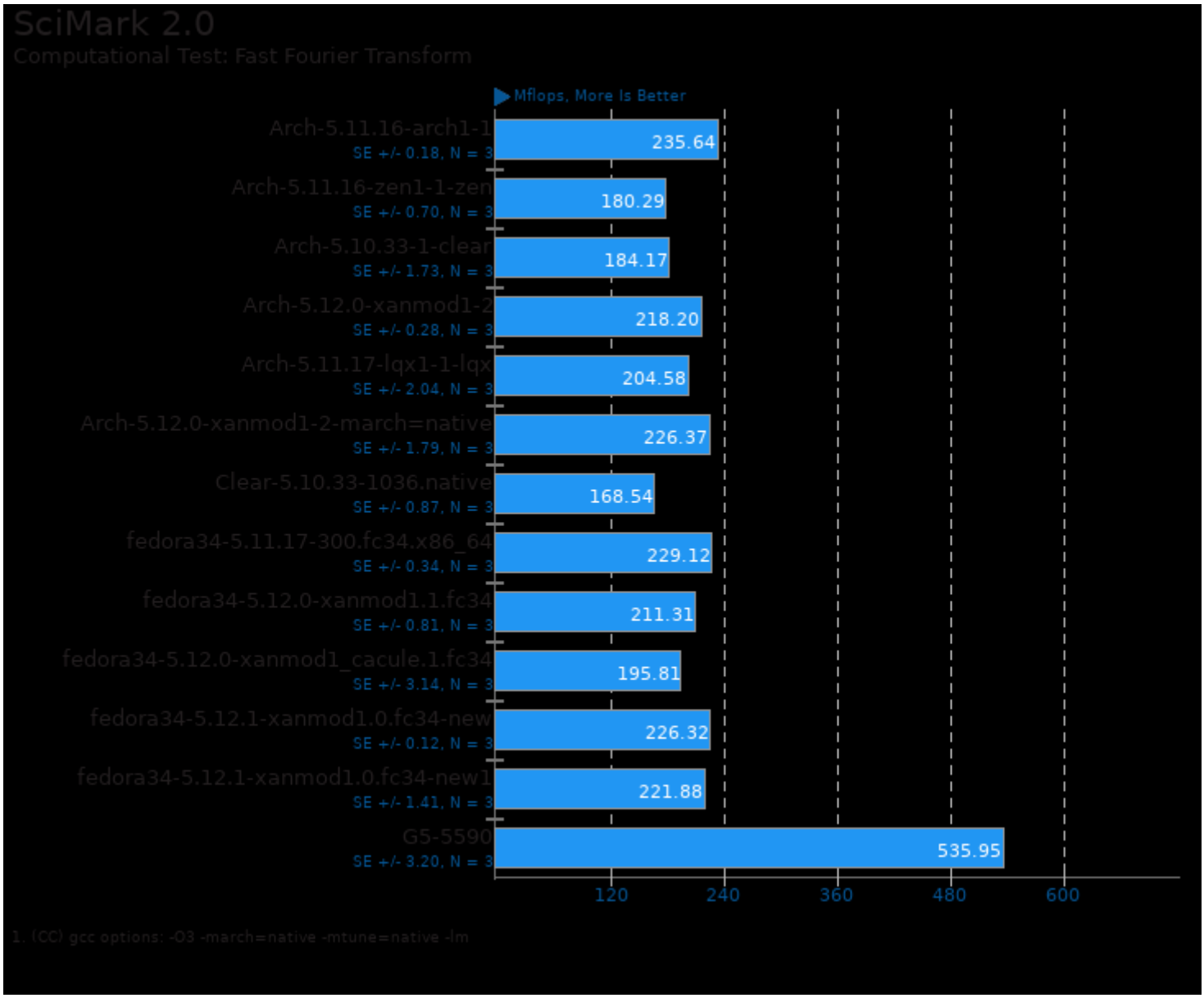
BenchMarxAsusk555lb



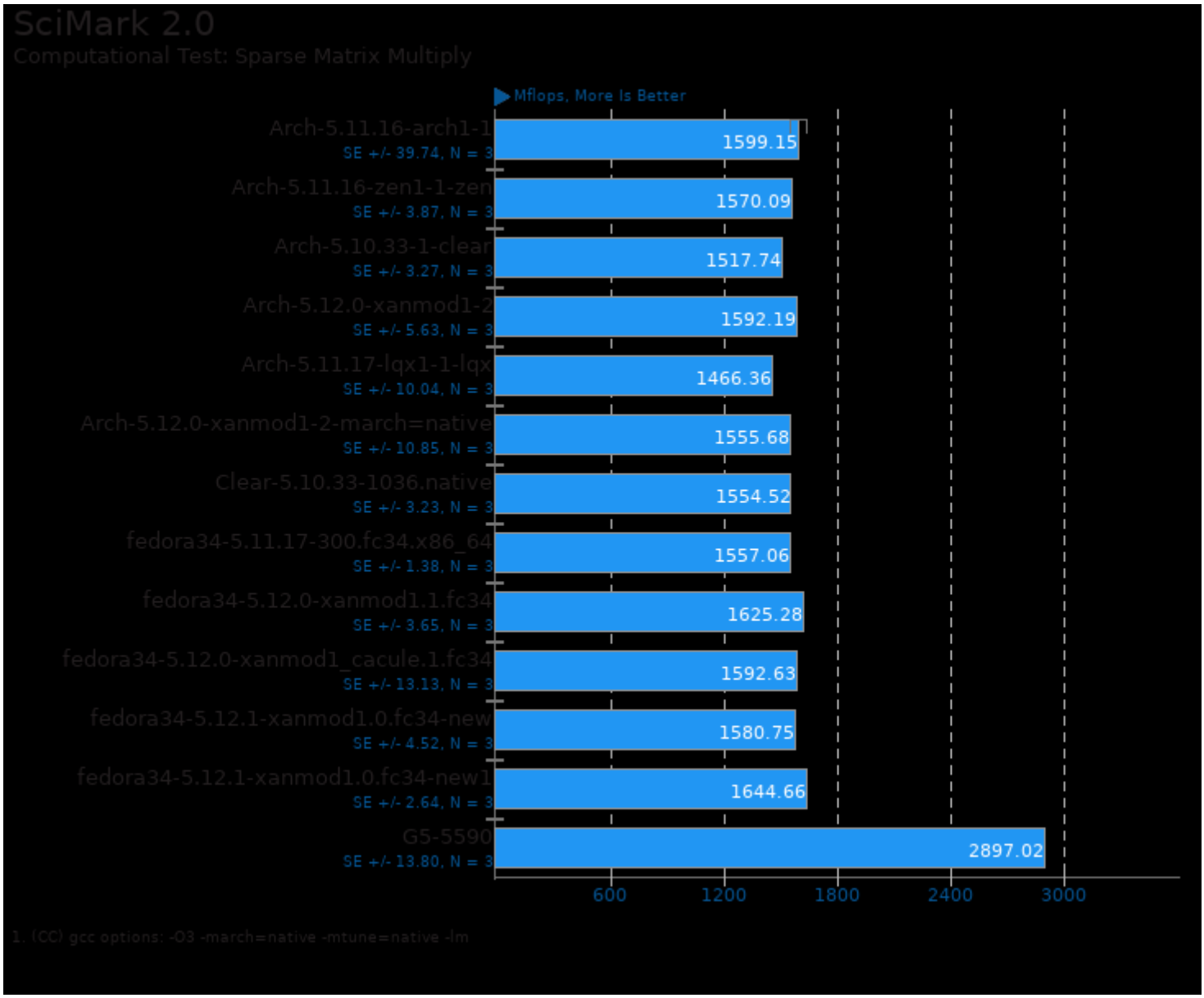
BenchMarxAsusk555lb



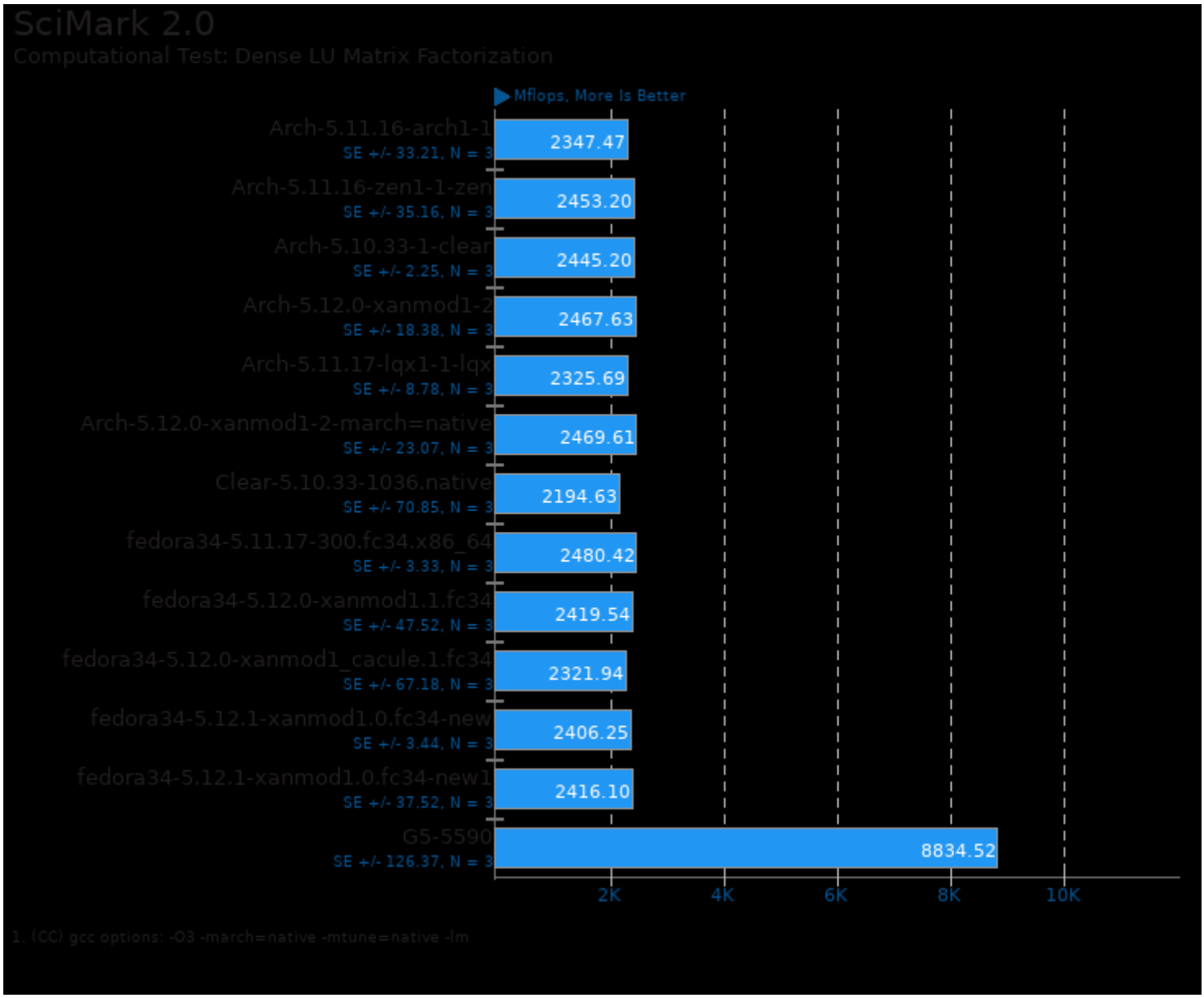
BenchMarxAsusk555lb



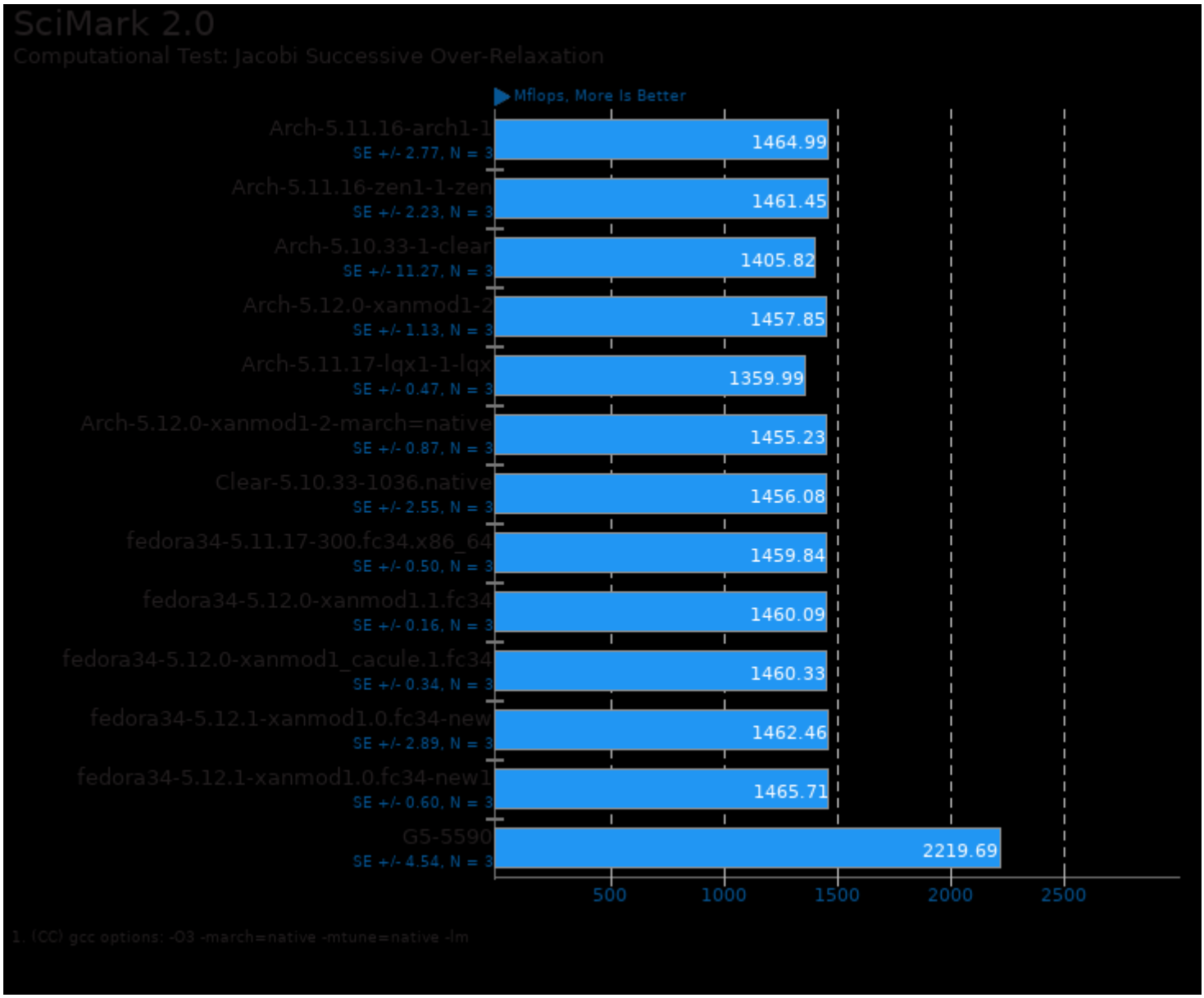
BenchMarxAsusk555lb

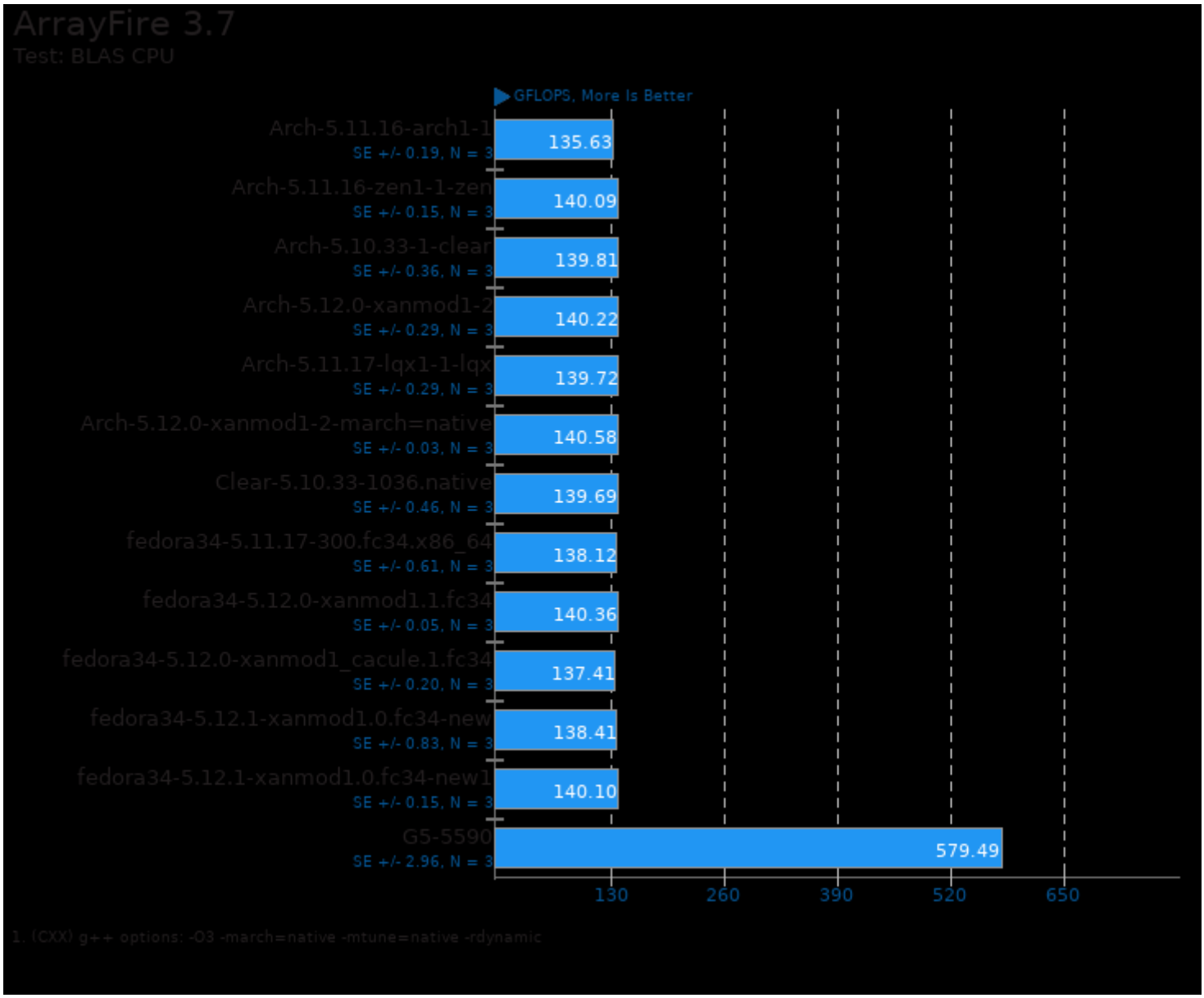


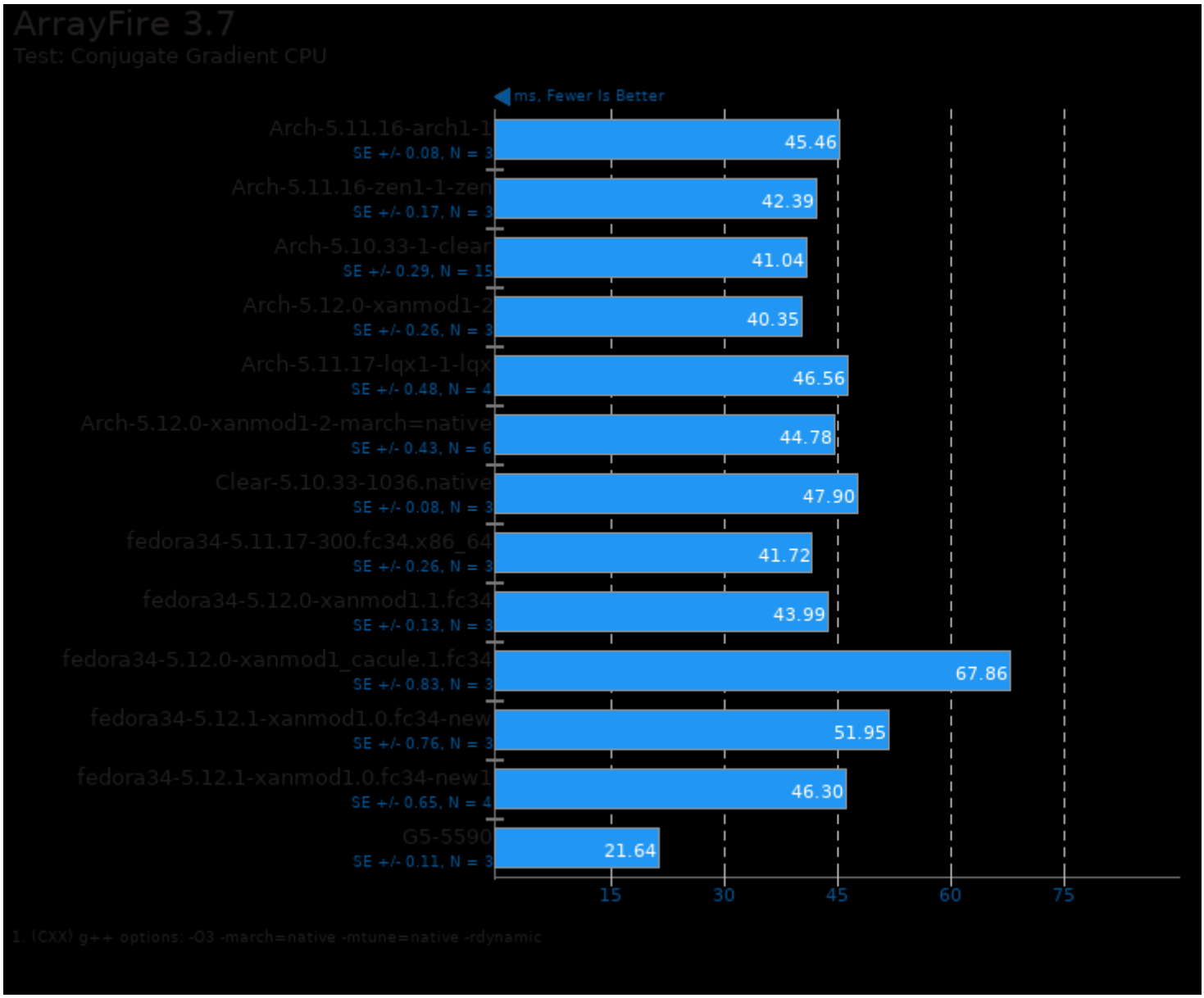
BenchMarxAsusk555lb

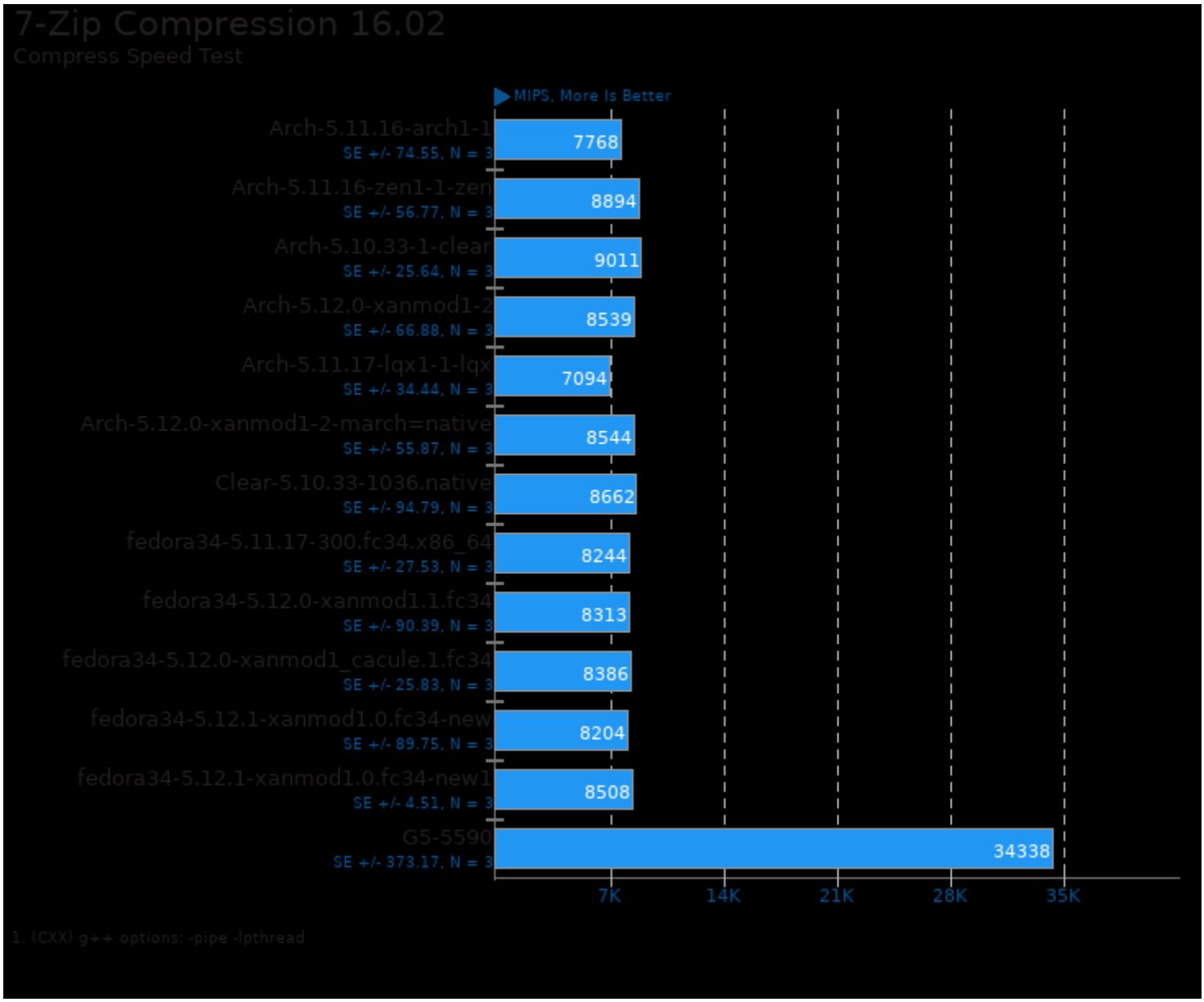


BenchMarxAsusk555lb

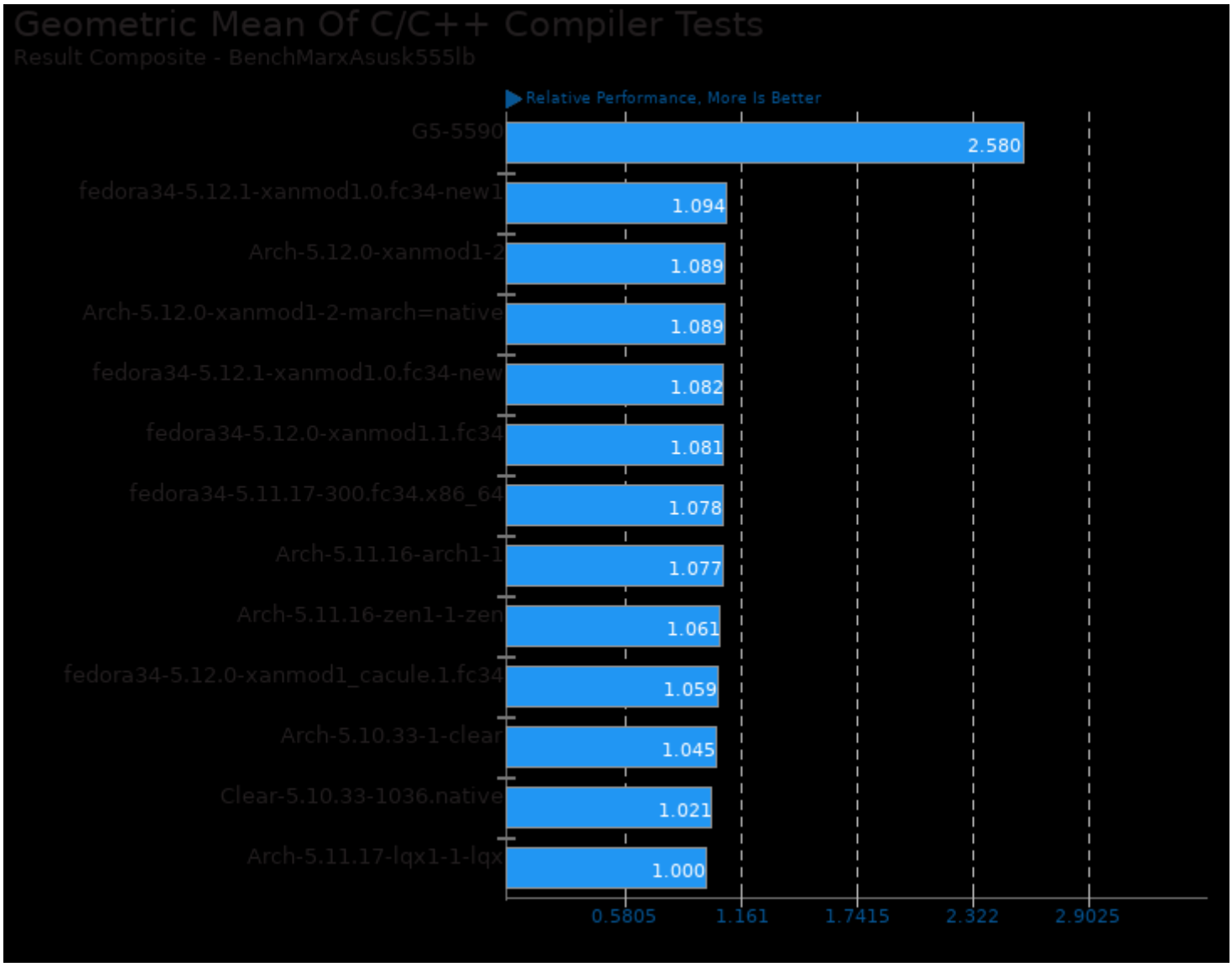



ArrayFire 3.7
Test: BLAS CPU
GFLOPS, More Is Better
Arch-5.11.16-arch1-1
SE +/- 0.19, N = 3
135.63
Arch-5.11.16-zen1-1-zen
SE +/- 0.15, N = 3
140.09
Arch-5.10.33-1-clear
SE +/- 0.36, N = 3
139.81
Arch-5.12.0-xanmod1-2
SE +/- 0.29, N = 3
140.22
Arch-5.11.17-lqx1-1-lqx
SE +/- 0.29, N = 3
139.72
Arch-5.12.0-xanmod1-2-march=native
SE +/- 0.03, N = 3
140.58
Clear-5.10.33-1036.native
SE +/- 0.46, N = 3
139.69
fedora34-5.11.17-300.fc34.x86_64
SE +/- 0.61, N = 3
138.12
fedora34-5.12.0-xanmod1.1.fc34
SE +/- 0.05, N = 3
140.36
fedora34-5.12.0-xanmod1_cacule.1.fc34
SE +/- 0.20, N = 3
137.41
fedora34-5.12.1-xanmod1.0.fc34-new
SE +/- 0.83, N = 3
138.41
fedora34-5.12.1-xanmod1.0.fc34-new1
SE +/- 0.15, N = 3
140.10
G5-5590
SE +/- 2.96, N = 3
579.49
130
260
390
520
650
1. (CXX) g++ options: -O3 -march=native -mtune=native -rdynamic

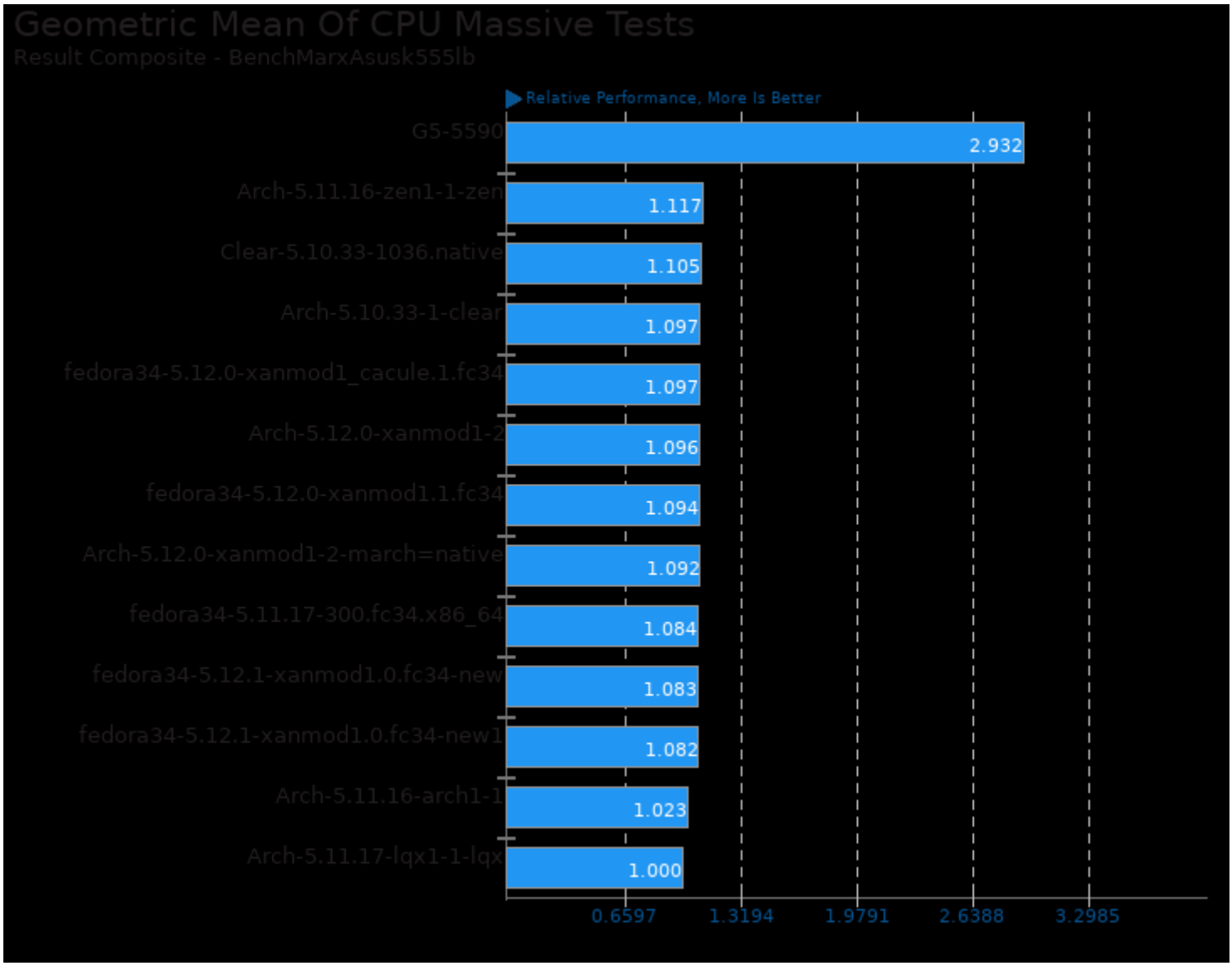

ArrayFire 3.7
Test: Conjugate Gradient CPU
ms, Fewer Is Better
Arch-5.11.16-arch1-1
SE +/- 0.08, N = 3
45.46
Arch-5.11.16-zen1-1-zen
SE +/- 0.17, N = 3
42.39
Arch-5.10.33-1-clear
SE +/- 0.29, N = 15
41.04
Arch-5.12.0-xanmod1-2
SE +/- 0.26, N = 3
40.35
Arch-5.11.17-lqx1-1-lqx
SE +/- 0.48, N = 4
46.56
Arch-5.12.0-xanmod1-2-march=native
SE +/- 0.43, N = 6
44.78
Clear-5.10.33-1036.native
SE +/- 0.08, N = 3
47.90
fedora34-5.11.17-300.fc34.x86_64
SE +/- 0.26, N = 3
41.72
fedora34-5.12.0-xanmod1.1.fc34
SE +/- 0.13, N = 3
43.99
fedora34-5.12.0-xanmod1_cacule.1.fc34
SE +/- 0.83, N = 3
67.86
fedora34-5.12.1-xanmod1.0.fc34-new
SE +/- 0.76, N = 3
51.95
fedora34-5.12.1-xanmod1.0.fc34-new1
SE +/- 0.65, N = 4
46.30
G5-5590
SE +/- 0.11, N = 3
21.64
15
30
45
60
75
1. (CXX) g++ options: -O3 -march=native -mtune=native -rdynamic


7-Zip Compression 16.02
Compress Speed Test
MIPS, More Is Better
Arch-5.11.16-arch1-1
SE +/- 74.55, N = 3
7768
Arch-5.11.16-zen1-1-zen
SE +/- 56.77, N = 3
8894
Arch-5.10.33-1-clear
SE +/- 25.64, N = 3
9011
Arch-5.12.0-xanmod1-2
SE +/- 66.88, N = 3
8539
Arch-5.11.17-lqx1-1-lqx
SE +/- 34.44, N = 3
7094
Arch-5.12.0-xanmod1-2-march=native
SE +/- 55.87, N = 3
8544
Clear-5.10.33-1036.native
SE +/- 94.79, N = 3
8662
fedora34-5.11.17-300.fc34.x86_64
SE +/- 27.53, N = 3
8244
fedora34-5.12.0-xanmod1.1.fc34
SE +/- 90.39, N = 3
8313
fedora34-5.12.0-xanmod1_cacule.1.fc34
SE +/- 25.83, N = 3
8386
fedora34-5.12.1-xanmod1.0.fc34-new
SE +/- 89.75, N = 3
8204
fedora34-5.12.1-xanmod1.0.fc34-new1
SE +/- 4.51, N = 3
8508
G5-5590
SE +/- 373.17, N = 3
34338
7K
14K
21K
28K
35K
1. (CXX) g++ options: -pipe -lpthread

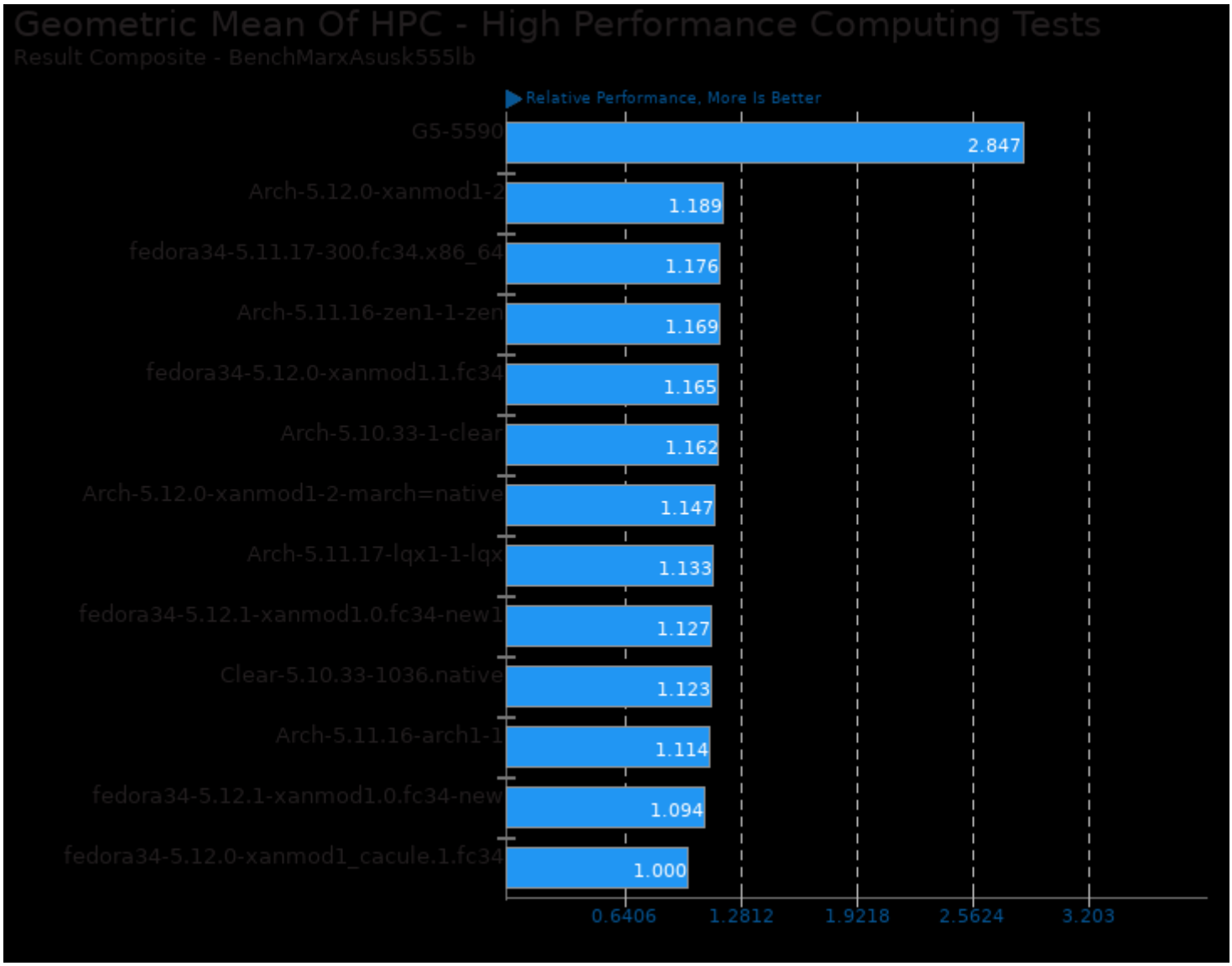
These geometric means are based upon test groupings / test suites for this result file.



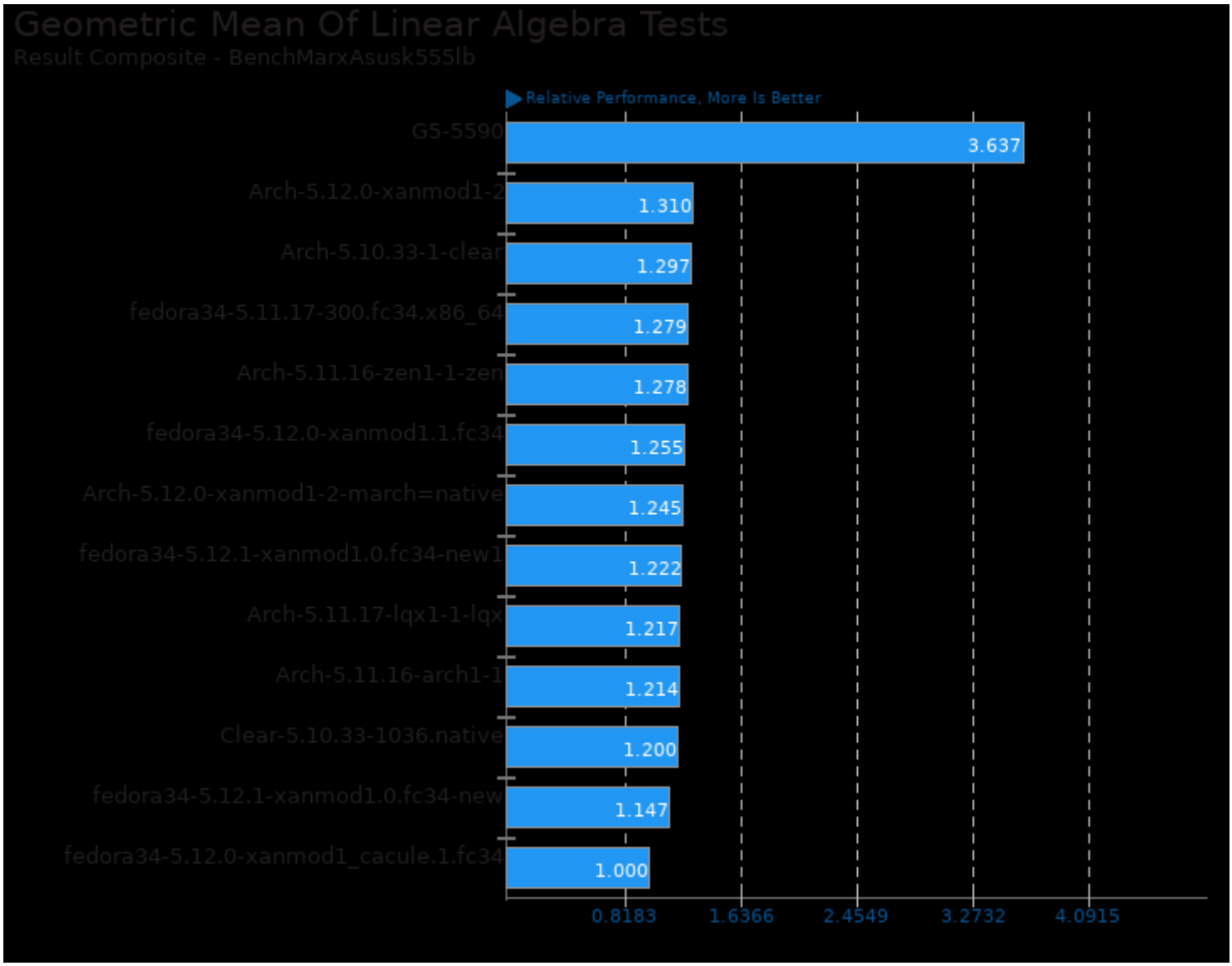
Geometric mean based upon tests: pts/scimark2 and pts/compress-7zip



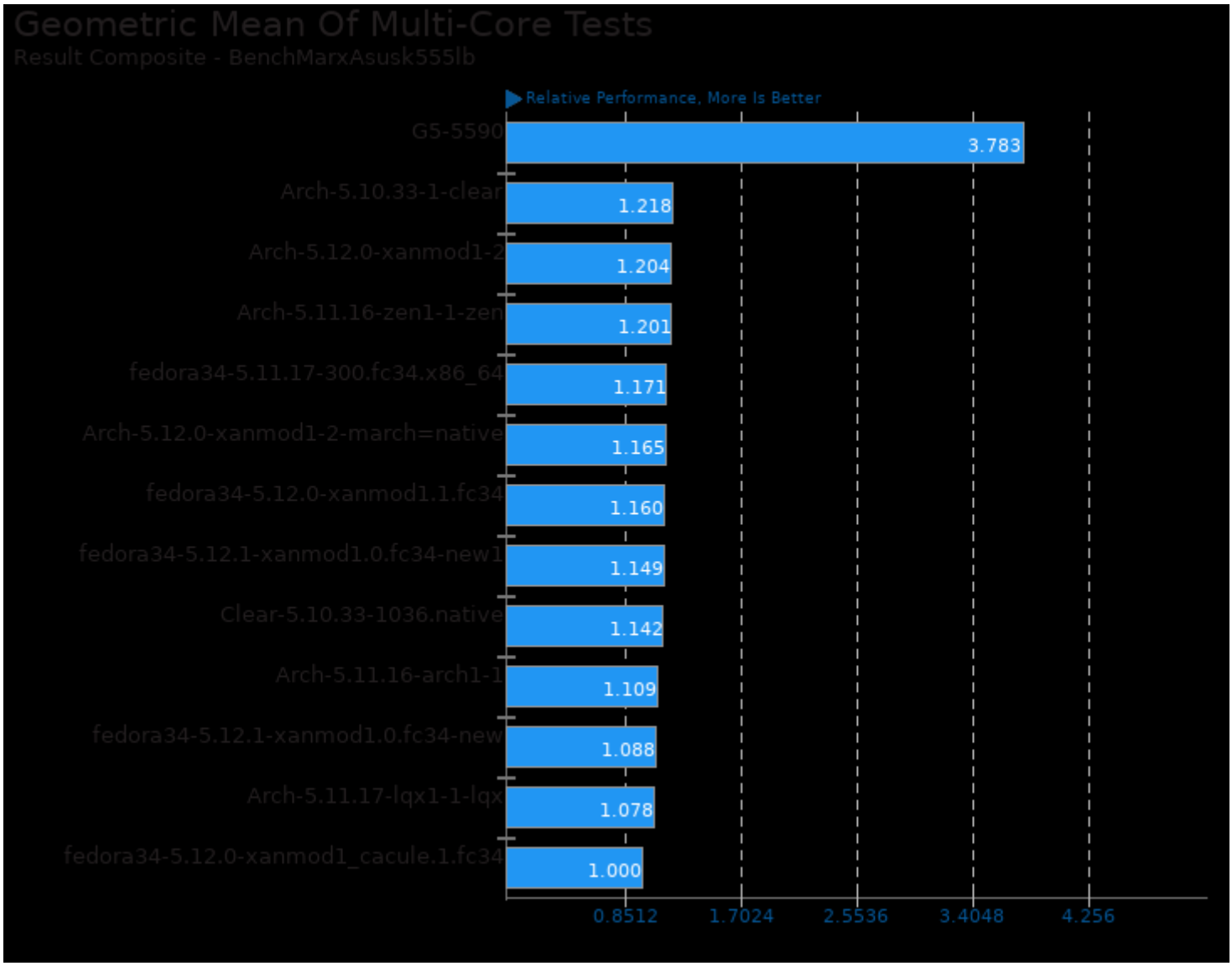
Geometric mean based upon tests: pts/compress-7zip and pts/dolfyn



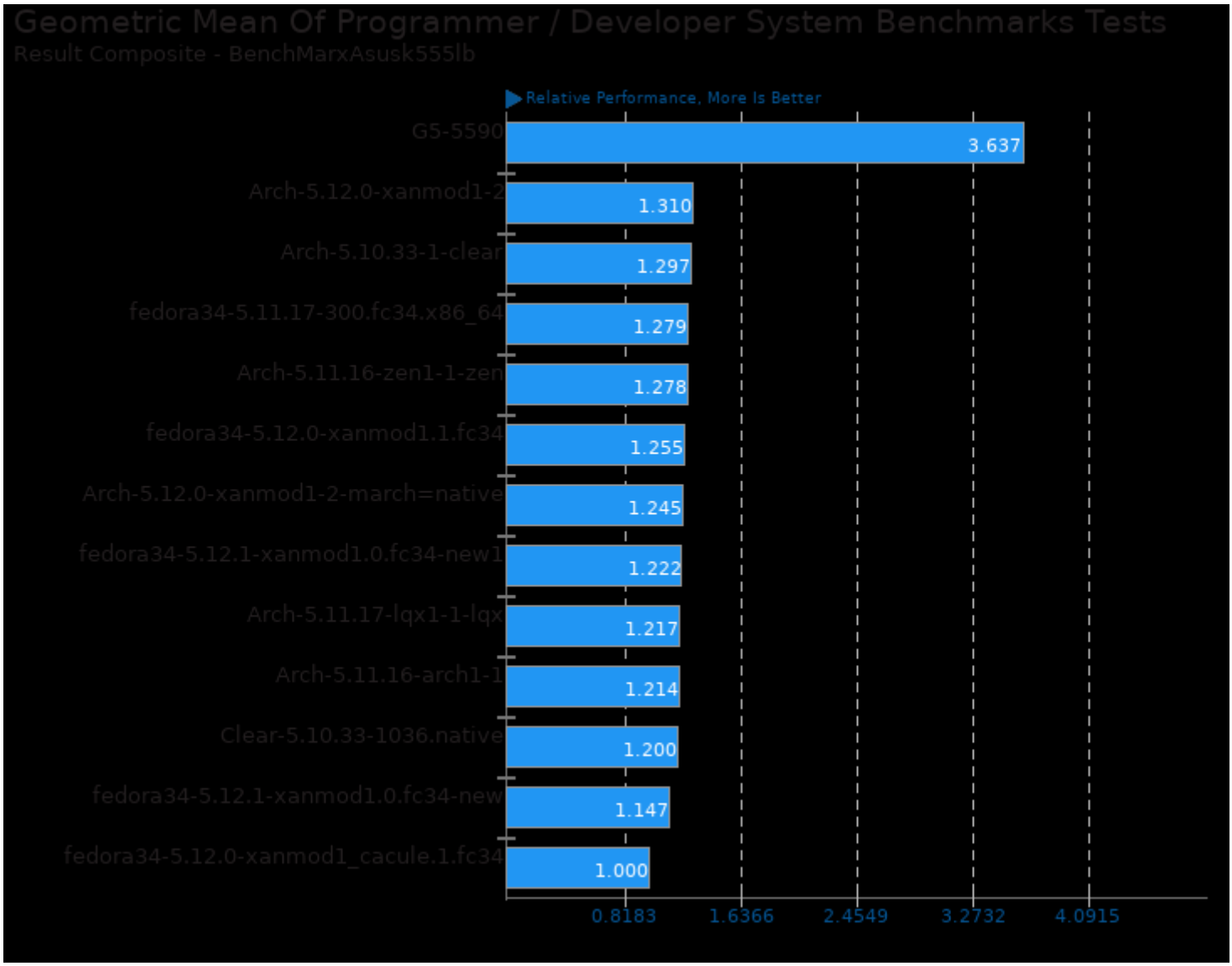
Geometric mean based upon tests: pts/arrayfire, pts/amg, pts/dolfyn and pts/minife



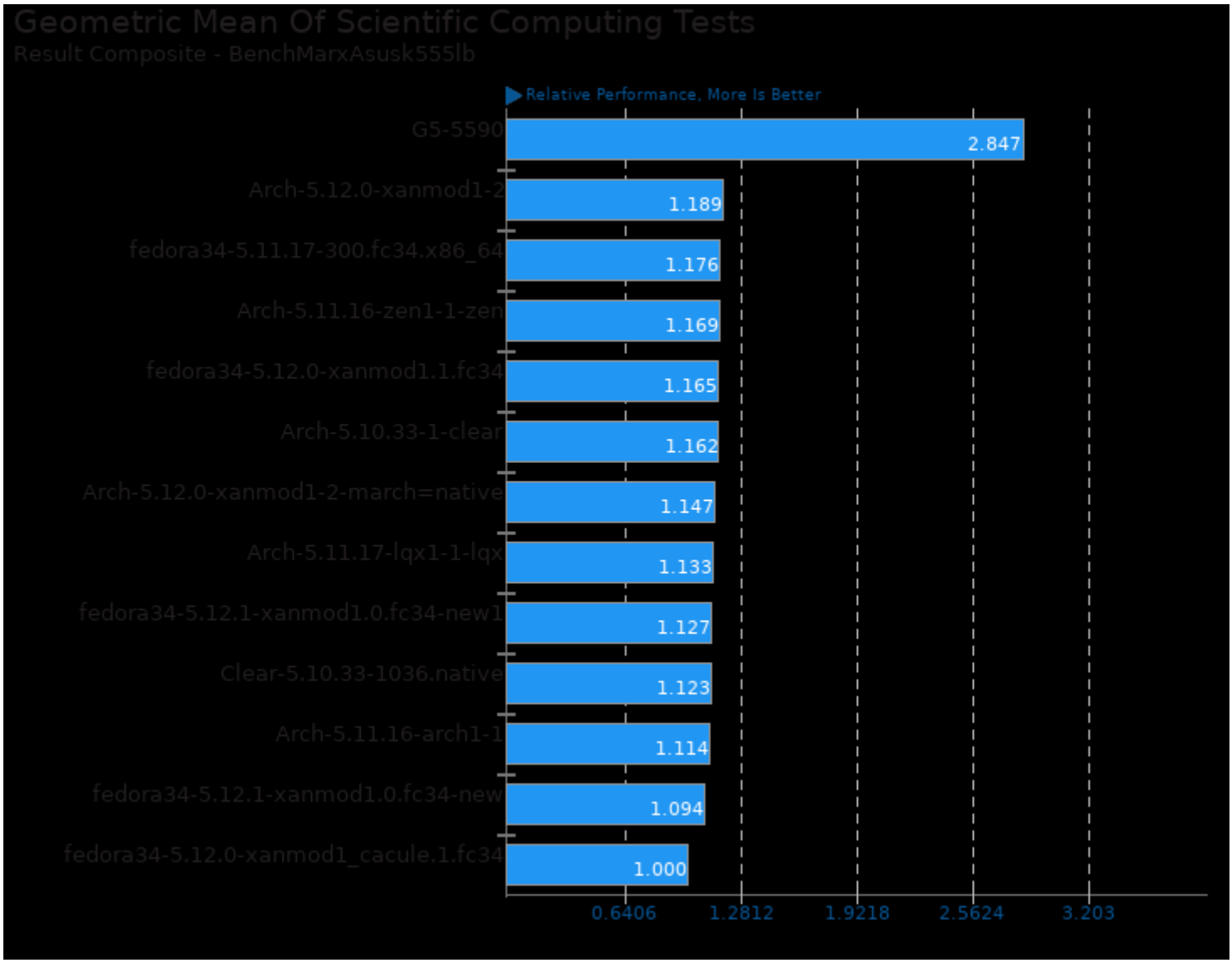
Geometric mean based upon tests: pts/arrayfire and pts/amg



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



Geometric mean based upon tests: pts/arrayfire and pts/amg



Geometric mean based upon tests: pts/arrayfire, pts/amg, pts/dolfyn and pts/minife

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 14:17.