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Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison

Intel Core i7-8665U testing with a LENOVO 20Q1SD2200 (N2JET92W 1.70 BIOS) and Intel WhiskeyLake-U GT2 [UHD 620] 3GB on Ubuntu 21.04 via the Phoronix Test Suite.

Automated Executive Summary

Core i9 7980XE had the most wins, coming in first place for 38% of the tests.

Based on the geometric mean of all complete results, the fastest (Core i7 8700K) was 6.778x the speed of the slowest (AMD E-350).

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

Rodinia (Test: OpenMP LavaMD) at 115.366x
OpenSSL (RSA 4096-bit Performance) at 74.791x
Timed Linux Kernel Compilation (Time To Compile) at 66.539x
asmFish (1024 Hash Memory, 26 Depth) at 63.712x
Stockfish (Total Time) at 61.311x
Rodinia (Test: OpenMP CFD Solver) at 57.423x
7-Zip Compression (Compress Speed Test) at 50.345x
m-queens (Time To Solve) at 46.457x
TTSIOD 3D Renderer (Phong Rendering With Soft-Shadow Mapping) at 44.241x

PolyBench-C (Test: Covariance Computation) at 38.408x.

Test Systems:

AMD E-350

Processor: AMD E-350 @ 1.60GHz (2 Cores), Motherboard: ASUS E35M1-M PRO (1602 BIOS), Chipset: AMD Family 14h Root Complex, Memory: 2048MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC887-VD, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

AMD A6-7400K

Processor: AMD A6-7400K Radeon R5 6 Compute Cores 2C+4G @ 3.90GHz (1 Core / 2 Threads), Motherboard: ASRock FM2A58M-VG3+ R2.0 (P2.70 BIOS), Chipset: AMD Family 15h, Memory: 16384MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC662 rev1, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

AMD A10-5800K

Processor: AMD A10-5800K APU @ 3.80GHz (2 Cores / 4 Threads), Motherboard: Gigabyte F2A68HM-H (FA BIOS), Chipset: AMD Family 15h, Memory: 4096MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC887-VD, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

AMD A10-7800

Processor: AMD A10-7800 Radeon R7 12 Compute Cores 4C+8G @ 3.50GHz (2 Cores / 4 Threads), Motherboard: MSI A78M-E35 (MS-7721) v6.0 (V30.1 BIOS), Chipset: AMD Family 15h, Memory: 7168MB, Disk: 120GB ADATA SU700, Graphics: MSI AMD Radeon R7 1024MB, Audio: AMD Kaveri HDMI/DP, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

AMD A10-7870K

Processor: AMD A10-7870K Radeon R7 12 Compute Cores 4C+8G @ 3.90GHz (2 Cores / 4 Threads), Motherboard: ASUS A88XM-E (2001 BIOS), Chipset: AMD Family 15h, Memory: 15360MB, Disk: 250GB Samsung SSD 850,

Graphics: ASUS AMD Radeon R7 1024MB, Audio: AMD Kaveri HDMI/DP, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

AMD Athlon II X3 425

Processor: AMD Athlon II X3 425 @ 2.70GHz (3 Cores), Motherboard: ASRock 890FX Deluxe3 (P1.40 BIOS), Chipset: AMD RD890 PCI-e GFX Hydra part, Memory: 4096MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: VIA VT2020, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

AMD FX-8350

Processor: AMD FX-8350 Eight-Core @ 4.00GHz (4 Cores / 8 Threads), Motherboard: ASUS Crosshair V Formula (1703 BIOS), Chipset: AMD RD9x0/RX980, Memory: 8192MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC889, Network: Intel 82583V Gigabit Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 5 2400G

Processor: AMD Ryzen 5 2400G @ 3.60GHz (4 Cores / 8 Threads), Motherboard: ASUS PRIME B350M-E (4011 BIOS), Chipset: AMD Device 15d0, Memory: 16384MB, Disk: Samsung SSD 950 PRO 256GB, Graphics: ASUS AMD Radeon Vega 8 Mobile 1024MB, Audio: AMD Device 15de, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 5 2600

Processor: AMD Ryzen 5 2600 Six-Core @ 3.40GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 5 2600X

Processor: AMD Ryzen 5 2600X Six-Core @ 3.60GHz (6 Cores / 12 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 7 1700

Processor: AMD Ryzen 7 1700 Eight-Core @ 3.00GHz (8 Cores / 16 Threads), Motherboard: MSI B350 TOMAHAWK (MS-7A34) v1.0 (1.H0 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 7 1800X

Processor: AMD Ryzen 7 1800X Eight-Core @ 3.60GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 7 2700

Processor: AMD Ryzen 7 2700 Eight-Core @ 3.20GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen 7 2700X

Processor: AMD Ryzen 7 2700X Eight-Core @ 3.70GHz (8 Cores / 16 Threads), Motherboard: ASUS ROG CROSSHAIR VII HERO (WI-FI) (0509 BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: AMD Device aaf8, Network: Intel I211 Gigabit Connection + Realtek Device b822

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Ryzen Threadripper 1950X

Processor: AMD Ryzen Threadripper 1950X 16-Core @ 3.40GHz (16 Cores / 32 Threads), Motherboard: Gigabyte X399 AORUS Gaming 7 (F3g BIOS), Chipset: AMD Family 17h, Memory: 16384MB, Disk: 120GB Force MP500, Graphics: MSI AMD Radeon R7 370 / R9 270/370 OEM 4096MB, Audio: Realtek ALC1220, Network: Qualcomm Atheros Killer E2500 Gigabit + Intel Wireless 8265 / 8275

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Intel Core 2 Duo E8400

Processor: Intel Core 2 Duo E8400 @ 2.99GHz (2 Cores), Motherboard: Gigabyte EP45T-DS3R (F1 BIOS), Chipset: Intel 4 DRAM + ICH10R, Memory: 4096MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC889A, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Pentium G3258

Processor: Intel Pentium G3258 @ 3.20GHz (2 Cores), Motherboard: Gigabyte H97M-D3H (F2 BIOS), Chipset: Intel 4th Gen Core DRAM, Memory: 8192MB, Disk: 250GB SAMSUNG HD253GJ, Graphics: Intel Haswell Desktop 1536MB (1100MHz), Audio: Intel Xeon E3-1200 v3/4th, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i3 2100

Processor: Intel Core i3-2100 @ 3.10GHz (2 Cores / 4 Threads), Motherboard: MSI H61M-P31/W8 (MS-7788) v1.0 (V3.6 BIOS), Chipset: Intel 2nd Generation Core Family DRAM, Memory: 4096MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC887-VD, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i5 2400S

Processor: Intel Core i5-2400S @ 3.30GHz (4 Cores), Motherboard: ASRock Z68 Pro3 (P2.10 BIOS), Chipset: Intel 2nd Generation Core Family DRAM, Memory: 4096MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC892, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i5 7600K

Processor: Intel Core i5-7600K @ 4.20GHz (4 Cores), Motherboard: Gigabyte Z270M-D3H-CF (F8d BIOS), Chipset: Intel Intel Kaby Lake + Z270, Memory: 8192MB, Disk: 250GB Samsung SSD 850, Graphics: Intel HD 630 (1150MHz), Audio: Realtek ALC892, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i5 8400

Processor: Intel Core i5-8400 @ 4.00GHz (6 Cores), Motherboard: MSI Z370M MORTAR (MS-7B54) v1.0 (1.20 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: Samsung SSD 950 PRO 256GB, Graphics: Intel UHD 630 3072MB (1050MHz), Audio: Realtek ALC892, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i7 5960X

Processor: Intel Core i7-5960X @ 3.50GHz (8 Cores / 16 Threads), Motherboard: ASRock X99 Extreme3 (P3.50 BIOS), Chipset: Intel Xeon E7 v3/Xeon, Memory: 16384MB, Disk: 120GB INTEL SSDSC2BW12, Graphics: AMD FirePro V7900 2048MB, Audio: Realtek ALC1150, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i7 7740X

Processor: Intel Core i7-7740K @ 4.50GHz (4 Cores / 8 Threads), Motherboard: Gigabyte X299 AORUS Gaming-CF (F2d BIOS), Chipset: Intel Intel Kaby Lake, Memory: 8192MB, Disk: 120GB Force MP500, Graphics: MSI NVIDIA GP108 2048MB, Audio: Realtek ALC1220, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i7 870

Processor: Intel Core 870 @ 2.93GHz (4 Cores / 8 Threads), Motherboard: ECS P55H-A v1.0 (080016 BIOS), Chipset: Intel Core DMI, Memory: 8192MB, Disk: 120GB ADATA SU700, Graphics: HIS AMD Radeon HD 6450/7450/8450 / R5 230 OEM 1024MB, Audio: Realtek ALC1200, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i7 8700K

Processor: Intel Core i7-8700K @ 4.70GHz (6 Cores / 12 Threads), Motherboard: ASUS PRIME Z370-A (0607 BIOS), Chipset: Intel Device 3ec2, Memory: 16384MB, Disk: 525GB Crucial_CT525MX3 + Samsung SSD 950 PRO 256GB, Graphics: AMD Radeon RX Vega 8192MB, Audio: Realtek ALC1220, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i7 990X

Processor: Intel Core i7 990X @ 3.47GHz (6 Cores / 12 Threads), Motherboard: MSI X58M (MS-7593) v1.0 (V3.8 BIOS), Chipset: Intel 5520/5500/X58 + ICH10R, Memory: 12288MB, Disk: PNY CS1211 120GB, Graphics: Sapphire AMD Radeon HD 5000/6000/7350/8350 512MB, Audio: Realtek ALC889, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i9 7900X

Processor: Intel Core i7-7900X @ 4.50GHz (10 Cores / 20 Threads), Motherboard: ASRock X299 Extreme4 (P1.20 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 32768MB, Disk: 120GB Force MP500, Graphics: Zotac NVIDIA GeForce GT 610 1024MB, Audio: Realtek ALC1220, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Core i9 7980XE

Processor: Intel Core i9-7980XE @ 4.40GHz (18 Cores / 36 Threads), Motherboard: ASUS PRIME X299-A (1004 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 16384MB, Disk: 256GB INTEL SSDPEKKW256G8, Graphics: NV134 8192MB, Audio: Realtek ALC1220, Network: Intel Connection

OS: Ubuntu 18.04, Kernel: 4.17.0-999-generic (x86_64), Compiler: GCC 8.1.0, File-System: ext4

Willow6C

Willow16C

Processor: 16 x Intel Core (Haswell IBRS) (16 Cores), Motherboard: Red Hat KVM (0.5.1 BIOS), Memory: 32768MB, Disk: 3938GB, Graphics: qxldrmfb, Audio: QEMU Generic

OS: Clear Linux OS 29390, Kernel: 3.10.0-957.12.2.el7.x86_64 (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 + Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1024x768, System Layer: container-other

Environment Notes:
CFFLAGS=-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
FFLAGS=-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
relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake
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
Security Notes: KPTI + Load fences __user pointer sanitization + Full retpoline IBPB + SSB disabled via prctl and seccomp + PTE Inversion

Core i5 8500T

Processor: Intel Core i5-8500T @ 3.50GHz (6 Cores), Motherboard: Dell 03KWTV (1.2.22 BIOS), Memory: 8192MB, Disk: 240GB Western Digital WDS240G2G0A + 3001GB EZRZ-00Z5HB0, Graphics: inteldrmfb (1100MHz), Audio:

Realtek ALC3234, Monitor: SAMSUNG

OS: Clear Linux OS 29390, Kernel: 5.0.0-37-generic (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 + Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Environment Notes:
CFFLAGS=-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
FFLAGS=-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
relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake
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_pstate powersave
Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + SSB disabled via prctl and seccomp + PTE Inversion; VMX: conditional cache flushes SMT disabled

Core i5 3470T

Processor: Intel Core i5-3470T @ 3.60GHz (2 Cores / 4 Threads), Motherboard: LENOVO MAHOBAY (9SKT63AUS BIOS), Memory: 4096MB, Disk: 120GB KINGSTON SV300S3 + 31GB Ultra Fit, Graphics: i915drmfb (1100MHz), Audio: Realtek ALC662 rev3, Monitor: SAMSUNG

OS: Clear Linux OS 29390, Kernel: 5.3.0-40-generic (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 + Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Environment Notes:
CFFLAGS=-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
FFLAGS=-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
relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake
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_pstate powersave
Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

i5 3470T 8GB RAM

Processor: Intel Core i5-3470T @ 3.60GHz (2 Cores / 4 Threads), Motherboard: LENOVO MAHOBAY (9SKT63AUS BIOS), Memory: 8192MB, Disk: 120GB KINGSTON SV300S3, Graphics: i915drmfb (1100MHz), Audio: Realtek ALC662 rev3, Monitor: SAMSUNG

OS: Clear Linux OS 29390, Kernel: 5.3.0-40-generic (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 +

Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Environment Notes:
CFFLAGS=-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
FFLAGS=-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 relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake 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_pstate powersave
Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

i5 3470T 10GB

Processor: Intel Core i5-3470T @ 3.60GHz (2 Cores / 4 Threads), Motherboard: LENOVO MAHOBAY (9SKT63AUS BIOS), Memory: 10240MB, Disk: 120GB KINGSTON SV300S3, Graphics: i915drmfb (1100MHz), Audio: Realtek ALC662 rev3, Monitor: SAMSUNG

OS: Clear Linux OS 29390, Kernel: 5.3.0-42-generic (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 + Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Environment Notes:
CFFLAGS=-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
FFLAGS=-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 relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake 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_pstate performance
Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

2 x E5-2667v3

Processor: Intel Core (4 Cores / 32 Threads), Motherboard: QEMU Standard PC (Q35 + ICH9 2009) (rel-1.12.0-0-ga698c89-rebuilt.opensuse.org BIOS), Chipset: Intel 82G33/G31/P35/P31 + ICH9, Memory: 18GB, Disk: 59GB, Graphics: llvmpipe 16GB, Audio: QEMU Generic, Network: Red Hat Virtio device

OS: Ubuntu 20.04, Kernel: 5.4.0-18-generic (x86_64), Desktop: GNOME Shell 3.36.0, Display Server: X Server 1.20.7, Display Driver: modesetting 1.20.7, OpenGL: 3.3 Mesa 20.0.2 (LLVM 9.0.1 256 bits), Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080, System Layer: KVM

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: CPU Microcode: 0x1
Security Notes: itlb_multihit: KVM: Vulnerable + l1tf: Mitigation of PTE Inversion + mds: Mitigation of Clear buffers; SMT Host state unknown + 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 + tsx_async_abort: Not affected

i5 6500 8GB RAM

Processor: Intel Core i5-6500 @ 3.60GHz (4 Cores), Motherboard: HP 8056 (N21 Ver. 02.21 BIOS), Memory: 8192MB, Disk: 120GB KINGSTON SV300S3, Graphics: i915drmfb (1050MHz), Audio: Realtek ALC221, Monitor: SAMSUNG

OS: Clear Linux OS 29390, Kernel: 5.3.0-45-generic (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 + Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Environment Notes:
CFFLAGS=-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
FFLAGS=-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
relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake
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_pstate performance
Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

i5 6500 10GB RAM

Processor: Intel Core i5-6500 @ 3.60GHz (4 Cores), Motherboard: HP 8056 (N21 Ver. 02.21 BIOS), Memory: 10240MB, Disk: 120GB KINGSTON SV300S3, Graphics: i915drmfb (1050MHz), Audio: Realtek ALC221, Monitor: SAMSUNG

OS: Clear Linux OS 29390, Kernel: 5.3.0-45-generic (x86_64), Compiler: GCC 9.1.1 20190512 gcc-9-branch@271104 + Clang 8.0.0 + LLVM 8.0.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Environment Notes:
CFFLAGS=-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
FFLAGS=-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
relro-malign-data=abi-fno-semantic-interposition-ftree-vectorize-ftree-loop-vectorize-Wl--enable-new-dtags
CXXFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake-fvisibility-inlines-hidden-Wl--enable-new-dtags
CFLAGS=-g-O3-feliminate-unused-debug-types-pipe-Wall-Wp-D_FORTIFY_SOURCE=2-fexceptions-fstack-protector--param=ssp-buffer-size=32-Wformat-Wformat-security-m64-fasynchronous-unwind-tables-Wp-D_REENTRANT-ftree-loop-distribute-patterns-Wl-z-Wl
relro-fno-semantic-interposition-ffat-lto-objects-fno-signed-zeros-fno-trapping-math-fassociative-math-Wl-sort-common-Wl--enable-new-dtags-mtune=skylake
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_pstate powersave
Security Notes: KPTI + usercopy/swapgs barriers and __user pointer sanitization + Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + SSB disabled via prctl and seccomp + PTE Inversion

LenovoM700Tiny

Processor: Intel Core i3-6100T @ 3.20GHz (2 Cores / 4 Threads), Motherboard: LENOVO SKYBAY (FWKT53A BIOS), Memory: 4096MB, Disk: 240GB Western Digital WDS240G2G0A + 3001GB EZRZ-00Z5HB0, Graphics: i915drmfb (950MHz), Audio: Realtek ALC233, Monitor: SAMSUNG

OS: Ubuntu 20.04.1 LTS, Kernel: 5.8.1-050801-generic (x86_64), Display Driver: i915drmfb, Compiler: GCC 9.3.0, File-System: overlayfs, Screen Resolution: 1920x1080, System Layer: Docker

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xe2
Security Notes: itlb_multihit: KVM: Mitigation of Split huge pages + 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

Core i5 7500T

Processor: Intel Core i5-7500T @ 3.30GHz (4 Cores), Motherboard: HP 82A5 (P23 Ver. 02.04 BIOS), Chipset: Intel Xeon E3-1200 v6/7th + H270, Memory: 16GB, Disk: 256GB Western Digital WDS256G1X0C-00ENX0, Graphics: Intel HD 630 3GB (1100MHz), Audio: Conexant CX20632, Monitor: S243HL, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 20.04, Kernel: 5.10.0-1033-oem (x86_64), Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6, Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0xea - Thermald 1.9.1
Security Notes: itlb_multihit: KVM: Mitigation of VMX unsupported + l1tf: Mitigation of PTE Inversion + mds: Mitigation of Clear buffers; SMT disabled + 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: disabled RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Mitigation of Clear buffers; SMT disabled

Core i3 7100U

Processor: Intel Core i3-7100U @ 2.40GHz (2 Cores / 4 Threads), Motherboard: LENOVO 20J2S07700 (R0JET44W 1.29 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 12GB, Disk: 256GB Western Digital WDS256G1X0C-00ENX0, Graphics: Intel HD 620 3GB (1000MHz), Audio: Realtek ALC298, Monitor: ASUS VN247, Network: Intel I219-V + Intel 8265 / 8275

OS: Ubuntu 20.04, Kernel: 5.10.0-1033-oem (x86_64), Display Server: X Server 1.20.9, OpenGL: 4.6 Mesa 20.2.6, Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate performance - CPU Microcode: 0xea - Thermald 1.9.1
Security Notes: itlb_multihit: KVM: Mitigation of VMX unsupported + l1tf: Mitigation of PTE Inversion + 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

MacMini2011-2415M

Processor: Intel Core i5-2415M @ 2.30GHz (2 Cores / 4 Threads), Motherboard: Apple Mac mini, Chipset: Intel 6, Memory: 2 x 8 GB DDR3-1333MHz, Disk: 240 06GB OCZ-AGILITY3, Graphics: Intel HD 3000 512MB, Monitor: HP 27er

OS: macOS 10.13.6, Kernel: 17.7.0 (x86_64), Compiler: Apple LLVM 10.0.0 (clang-1000.10.44.4) + GCC 4.2.1, File-System: APFS, Screen Resolution: 1920x1080

Environment Notes: XPC_FLAGS=0x0
Processor Notes: CPU Microcode: 47

Core i5 8250U

Processor: Intel Core i5-8250U @ 1.60GHz (4 Cores / 8 Threads), Motherboard: KBL Charmander_KL (V1.10 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 12GB, Disk: 500GB KINGSTON SA2000M8500G, Graphics: NVIDIA GeForce MX150 2GB (1480/3003MHz), Audio: Realtek ALC255, Monitor: LM156LF1L03, Network: Realtek RTL8111/8168/8411 + Qualcomm Atheros QCA9377 802.11ac

OS: Ubuntu 20.04, Kernel: 5.10.0-1044-oem (x86_64), Display Server: X Server 1.20.11, Display Driver: NVIDIA 470.57.02, OpenGL: 4.6.0, OpenCL: OpenCL 3.0 CUDA 11.4.94, Vulkan: 1.2.175, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xea - Thermald 1.9.1
OpenCL Notes: GPU Compute Cores: 384
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

Core i3 8130U

Processor: Intel Core i3-8130U @ 3.40GHz (2 Cores / 4 Threads), Motherboard: LENOVO 20LTS28S00 (R0QET41W 1.18 BIOS), Chipset: Intel Xeon E3-1200 v6/7th, Memory: 12GB, Disk: 120GB KINGSTON SV300S3, Graphics: Intel UHD 620 3GB (1000MHz), Audio: Realtek ALC257, Monitor: HP 27er, Network: Intel I219-V + Intel 8265 / 8275

OS: Ubuntu 20.04, Kernel: 5.11.0-27-generic (x86_64), Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.0.3, Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3286x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xea
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

Core i5 8265U

Processor: Intel Core i5-8265U @ 3.90GHz (4 Cores / 8 Threads), Motherboard: LENOVO 20N9S19A00 (R0YET28W 1.11 BIOS), Chipset: Intel Cannon Point-LP, Memory: 16GB, Disk: 256GB Western Digital WDS256G1X0C-00ENX0, Graphics: Intel UHD 620 3GB (1100MHz), Audio: Conexant CX8070, Monitor: HP 27er, Network: Realtek

RTL8111/8168/8411 + Intel-AC 9260

OS: Ubuntu 20.04, Kernel: 5.10.0-1044-oem (x86_64), Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.0.3, Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xea
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Mitigation of Clear buffers; SMT vulnerable + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Mitigation of Microcode + tsx_async_abort: Not affected

Ryzen 3 5300U 8GB

Processor: AMD Ryzen 3 5300U @ 2.60GHz (4 Cores / 8 Threads), Motherboard: LENOVO LNVNB161216 (GQCN19WWV1.05 BIOS), Chipset: AMD Renoir Root Complex, Memory: 6GB, Disk: 256GB Western Digital WDS256G1X0C-00ENX0, Graphics: AMD RENOIR 2GB (1500/400MHz), Audio: AMD Device 1637, Monitor: HP 27er, Network: Realtek RTL8111/8168/8411 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.10.0-1045-oem (x86_64), Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.0.3 (LLVM 12.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq powersave (Boost: Enabled) - CPU Microcode: 0x8608103
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Ryzen 3 5300U 16GB

Processor: AMD Ryzen 3 5300U @ 2.60GHz (4 Cores / 8 Threads), Motherboard: LENOVO LNVNB161216 (GQCN19WWV1.05 BIOS), Chipset: AMD Renoir Root Complex, Memory: 14GB, Disk: 256GB Western Digital WDS256G1X0C-00ENX0, Graphics: AMD RENOIR 2GB (1500/400MHz), Audio: AMD Device 1637, Monitor: HP 27er, Network: Realtek RTL8111/8168/8411 + Intel Wi-Fi 6 AX200

OS: Ubuntu 20.04, Kernel: 5.10.0-1045-oem (x86_64), Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.0.3 (LLVM 12.0.0), Vulkan: 1.2.145, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 3840x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0x8608103
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional IBRS_FW STIBP: conditional RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Acer CB 315 - A4 9120C

Processor: 15/70 (2 Cores), Motherboard: ChromiumOS crosvm, Memory: 3072MB, Disk: 31GB

OS: Debian GNU/Linux 10, Kernel: 5.4.131-16049-gc688e114d34e (x86_64), Display Server: Wayland, Compiler: GCC 8.3.0, File-System: btrfs, Screen Resolution: 1920x1080, System Layer: lxc

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++ --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: CPU Microcode: 0x1000065
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

Lenovo Duet Helio P60T

Processor: ARMv8 Cortex-A73 (8 Cores), Memory: 3072MB, Disk: 47GB

OS: Debian GNU/Linux 10, Kernel: 5.4.131-16049-gc688e114d34e (aarch64), Display Server: Wayland, Compiler: GCC 8.3.0, File-System: btrfs, System Layer: lxc

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=aarch64-linux-gnu --disable-libphobos --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++ --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only -v
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Not affected + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Mitigation of Branch predictor hardening + srbds: Not affected + tsx_async_abort: Not affected

Core i7 8665U

Processor: Intel Core i7-8665U @ 4.80GHz (4 Cores / 8 Threads), Motherboard: LENOVO 20Q1SD2200 (N2JET92W 1.70 BIOS), Chipset: Intel Cannon Point-LP, Memory: 16GB, Disk: 256GB Micron_1100_MTFD, Graphics: Intel WhiskeyLake-U GT2 [UHD 620] 3GB (1150MHz), Audio: Realtek ALC257, Monitor: HP 27er, Network: Intel I219-LM + Intel Cannon Point-LP CNVi

OS: Ubuntu 21.04, Kernel: 5.11.0-37-generic (x86_64), Display Server: X Server 1.20.11, OpenGL: 4.6 Mesa 21.0.3, Compiler: GCC 10.3.0, File-System: ext4, Screen Resolution: 3840x1080

Kernel Notes: Transparent Huge Pages: madvise
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-gDeRY6/gcc-10-10.3.0/debian/tmp-gcn/usr, hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-build-config=bootstrap-lto-lean --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xea
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Enhanced IBRS IBPB: conditional RSB filling + srbds: Mitigation of TSX disabled + tsx_async_abort: Mitigation of TSX disabled

Processor	m-queens - Time To Solve (sec)	Normalized	Standard Deviation
AMDE-350	1656	2.64%	0.1%
AMDA6-7400K	658.36	6.65%	0.1%
AMDA10-5800K	528.21	8.28%	3.9%
AMDA10-7800	367.68	11.9%	0.1%
AMDA10-7870K	327.04	13.38%	0%
AMDAthlonIIX3425	514.07	8.51%	0%
AMDFX-8350	189.72	23.07%	0.1%
Ryzen52400G			
Ryzen52600			
Ryzen52600X			
Ryzen71700			
Ryzen71800X			
Ryzen72700			
Ryzen72700X			
RyzenThreadripper1950X	43.76	100%	0.2%
IntelCore2DuoE8400	888.45	4.93%	0%
PentiumG3258	613.87	7.13%	0%
Corei32100	529.10	8.27%	0%
Corei52400S	429.31	10.19%	0.2%
Corei57600K	232.32	18.84%	0%
Corei58400			
Corei75960X	108.01	40.51%	0.2%
Corei77740X	164.47	26.61%	0%
Corei7870	293.68	14.9%	1%
Corei78700K			
Corei7990X	171.37	25.54%	0.1%
Corei97900X	74.91	58.42%	0.1%
Corei97980XE	50.26	87.07%	0.3%
Willow6C	200.40	21.84%	1.4%
Willow16C	105.51	41.47%	3.1%
Corei58500T	208.80	20.96%	0.1%
Corei53470T	493.56	8.87%	0%
i53470T8GBRAM	560.25	7.81%	0%
i53470T10GB	459.00	9.53%	0%
2xE5-2667v3	51.739	84.58%	0.2%
i565008GBRAM	303.05	14.44%	0.1%
i5650016GBRAM	301.61	14.51%	0.1%
LenovoM700Tiny	508.119	8.61%	0%
Corei57500T	337.524	12.97%	0.2%
Corei37100U	651.986	6.71%	0.1%
MacMini2011-2415M			
Corei58250U	282.239	15.5%	0.9%
Corei38130U	458.957	9.53%	0.1%
Corei58265U	257.139	17.02%	0.3%
Ryzen35300U8GB	207.788	21.06%	0.1%
Ryzen35300U16GB	206.235	21.22%	0.2%
AcerCB315-A49120C	2033	2.15%	2.5%
LenovoDuetHelioP60T	294.283	14.87%	2%

Timed Linux Kernel Compilation - Time To Compile (sec)	2	6	4	3	2	5	1	1	1	9	9	8	8	7	4	6	4	4	3	1	1	8	1	2	8	1	5	3	1
	3	8	8	3	9	1	6	5	0	4	4	4	7	7	7	2	2	3	0	5	1	8	0	3	0	5	5	5	4
	8	3	1	8	9	2	7	9	4	.	.	.	.	.	.	5	0	9	4	7	2	.	6	5	.	5	.	.	4
	4	.	.	.	.	.	.	.	.	8	7	3	4	0	1	.	.	.	.	.	.	7	.	.	9	.	8	8	3
		5	4	9	1	5	3	9	6	5	1	2	5	0	4	4	6	5	6	3	2	7	2	7	9	6	9	3	
		1	5	1	2	0	6	8	6							0	7	9	5	9	5		7	6		8			
Normalized	1	5	7	1	1	6	2	2	3	3	3	4	4	4	7	5	8	8	1	2	3	4	3	1	4	2	6	1	2
	.	.	.	0	1	.	1	2	4	7	7	2	0	6	6	.	.	.	1	2	1	0	3	5	4	3	4	0	.
	5	2	4	.	.	9	.	.	.	.	.	.	.	.	.	7	5	1	.	.	.	.	.	.	.	.	.	0	4
	%	4	4	5	9	9	4	4	2	7	8	4	9	5	0	3	2	5	7	7	9	3	7	2	2	0	1	%	8
		%	%	7	8	%	1	%	3	8	3	9	7	3	1	%	%	%	6	7	2	6	2	%	4	2	1		%
				%	%		%		%	%	%	%	%	%	%				%	%	%	%	%		%	%	%		
Standard Deviation	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	0	0	0	0	0	1	2	1	0	1	2	2	3	0
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	4	4	7	7	9	6	4	1	3	3	6	4	7	5	9	4	5	6	6	8	1	2		7	3	3	3	3	9
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		%	%	%	%	%	%

Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison

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Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison

Timed PHP Compilation - Time To Compile (sec)	1272	402.92	263.28	216.31	189.62	324.71	108.49	106.24	78.36	72.08	83.59	73.41	75.04	66.95	56.29	339.19	259.15	254.80	178.95	103.82	69.43	75.52	67.57	141.04	56.42	108.34	52.57	46.12	151.29	141.14	140.70	319.86	373.46	299.43	71.827	164.64	163.33	294.181	145.717	278.499	337.673	144.682	218.478	135.057	149.258	128.630	1429
Normalized	3.63%	11.45%	17.52%	21.32%	24.32%	14.2%	42.51%	43.41%	58.86%	63.98%	55.17%	62.83%	61.46%	68.89%	81.93%	13.6%	17.8%	18.1%	25.77%	44.42%	66.43%	61.07%	68.26%	32.7%	81.74%	42.57%	87.73%	100%	30.48%	32.68%	32.78%	14.42%	12.35%	15.4%	64.21%	28.01%	28.24%	15.68%	31.65%	16.56%	13.66%	31.88%	21.11%	34.15%	30.9%	35.85%	3.23%
Standard Deviation	0%	0.1%	6.5%	0.2%	0.1%	0.1%	0.3%	0.7%	0.7%	0.4%	0.6%	0.3%	1.4%	1%	0.9%	0%	0.6%	0.1%	0.1%	0.1%	0.3%	0.4%	0.5%	0.6%	0.5%	0.4%	0.1%	0.3%	3.5%	0.7%	1.8%	0.2%	0.1%	0.1%	0.6%	0.3%	0.2%	0.2%	0.3%	0.1%	25.1%	0.6%	0.5%	0.7%	0.5%	0.4%	0.2%

Stockfish - Total Time (Nodes/s)	721156	2634622	3110648	5147353	5793041	3340855	10229160								40826604		3556304	3959009	5450590	9418962		18120282	13396201	7494699		13338369	29577765	44214755	8611939	17298395	10748746	3793239	3202361	4135071	34962607	7478247	7587616	3973324	6897217	3344542	3405948	6937063	4388325	7592269	8184176	8333287	770377
Normalized	1.63%	5.96%	7.04%	11.64%	13.1%	7.56%	23.14%								92.34%		8.04%	8.95%	12.33%	21.3%		40.98%	30.3%	16.95%		30.17%	66.9%	100%	19.48%	39.12%	24.31%	8.58%	7.24%	9.35%	79.07%	16.91%	17.16%	8.99%	15.6%	7.56%	7.7%	15.69%	9.93%	17.17%	18.81%	18.85%	1.74%

Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison

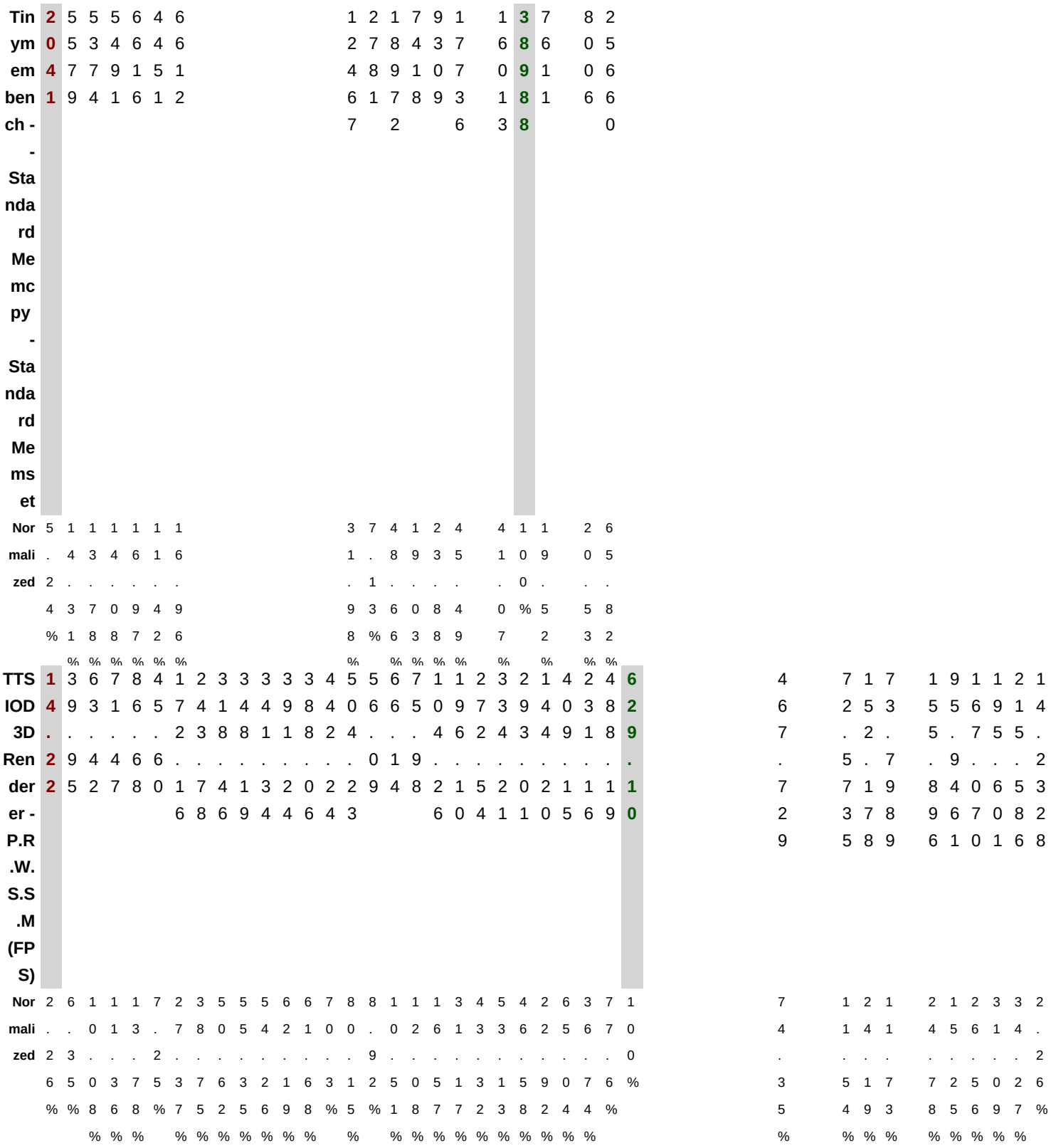
Standard Deviation	0.2%	0.5%	8.7%	1.8%	0.7%	1.4%	0.3%								0.5%		0.7%	1.1%	0.9%	0.1%		0.8%	0.7%	2.8%
Fhourstones - C.C.4.S (Kpos / sec	3337	8723	9614	8087	9214	7061	10245	12798	13083	13836	11796	13051	13342	14053	11926	7940	9839	9203	10274	13619	14366	12068	15092	8912
Normalized	20.91%	54.1%	59.6%	50.14%	57.12%	43.78%	63.52%	79.31%	81.11%	85.78%	73.13%	80.92%	82.72%	87.12%	73.94%	49.23%	61%	57.06%	63.69%	84.43%	89.06%	74.82%	93.56%	55.25%
Standard Deviation	0.1%	0.6%	0.2%	0.1%	0.2%	0.1%	0.1%	0.5%	0.2%	0.3%	0.2%	0.4%	0.2%	0.5%	0.6%	0.2%	0%	0.4%	0.2%	0.1%	0.8%	0.2%	0.1%	0%
Tinymembench - - Standard Memset (MB																								
Normalized																								

Standard Deviation		1.7%	2.2%	0.3%	1.1%	5.4%	1.9%	0.7%	0.6%	0.4%	1.8%	1.6%	2.5%	0.4%	0.4%	1.4%	0.6%	0.6%	1%	1.6%	0.6%	1%	2.2%	
Fhourstones - C.C.4.S (Kpos / sec	16130	9621	14408	14701	9730	9768	11695	10410	9868	10633	10261	11728	11862	8392	10718	7951	7629	10242	10312	11353	10994	11184	3864	3710
Normalized	100%	59.65%	89.32%	91.14%	58.46%	60.56%	72.5%	64.54%	61.18%	65.92%	63.61%	72.71%	73.51%	52.03%	66.44%	49.29%	47.29%	63.5%	63.53%	70.99%	68.36%	69.14%	23.36%	23%
Standard Deviation	0.4%	0.1%	0.1%	0.1%	0.5%	0.3%	0.2%	0.5%	0.3%	0.1%	0.5%	0.2%	0.1%	0.4%	0.2%	0.2%	0.3%	0.2%	1.3%	0.2%	0.1%	0.1%	0.4%	0.5%
Tinymembench - - Standard Memset (MB					7387	7332	19216	24866	12243	12376	5865	15796	15846	14482	27795	16261		26774	21315	32063	5440	9256	2510	8849
Normalized					23.04%	22.87%	59.93%	77.55%	38.18%	38.6%	18.29%	49.27%	49.42%	45.17%	86.69%	50.72%		70.72%	66.48%	100%	16.97%	28.87%	7.83%	27.6%

Rodinia - OpenMP CFD Solver (sec)	685.06	248.07	130.06	139.20	119.94	234.93	70.46	45.91	32.70	31.17	34.92	28.52	29.28	27.22	13.34	206.00
Normalized	1.74%	4.81%	9.17%	8.57%	9.95%	5.08%	16.93%	25.99%	36.48%	38.27%	34.16%	41.83%	40.74%	43.83%	89.43%	5.79%
Standard Deviation	0.1%	0.3%	0.6%	0%	0.2%	0%	0.2%	0.5%	0.2%	0.3%	5.1%	0.5%	0.5%	0.5%	0.3%	0.1%
Tinymembench - Standard Memcpy (MB/s)	2012	4973	5725	5057	5801	4433	5728								15595	3598
Normalized	11.7%	28.92%	33.3%	29.41%	33.74%	25.78%	33.32%								90.71%	20.35%

Rodinia - OpenMP CFD Solver (sec)	156.22	155.79	114.38	59.91	35.98	33.82	39.02	91.46	29.04	63.64	18.23	11.93	62.35	50.33	53.72	145.33
Normalized	7.64%	7.66%	10.43%	19.91%	33.16%	35.27%	30.57%	13.04%	41.08%	18.75%	65.44%	100%	19.13%	23.7%	22.21%	8.21%
Standard Deviation	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.6%	0.1%	0.4%	0.3%	0.3%	3.4%	1.6%	2.5%	0.6%
Tinymembench - Standard Memcpy (MB/s)	7948	7422	8276	7502		11653	17193	6906		7385	13059	9954	8041	9248	8074	9013
Normalized	43.58%	42.12%	52.21%	43.63%		67.78%	100.0%	40.17%		42.95%	61.98%	57.92%	46.77%	53.79%	46.96%	53.12%

Rodinia - OpenMP CFD Solver (sec)	161.35	140.04	23.646	70.64	69.98	141.361	72.678	136.884		71.645	102.339	60.185	98.155	62.825	617.540	235.455
Normalized	7.39%	8.52%	50.45%	16.89%	17.05%	8.44%	16.41%	8.72%		16.65%	11.66%	19.82%	12.15%	18.99%	1.93%	5.07%
Standard Deviation	3.3%	0.1%	3.4%	0.1%	0.4%	0.7%	0.1%	1.2%		0.3%	0.3%	0.6%	0.4%	2.5%	8.8%	1.7%
Tinymembench - Standard Memcpy (MB/s)	5655	5645	4355	6366	6848	6612	13187	7183		9595	9467	13355	4321	6713	1949	4148
Normalized	32.89%	32.82%	25.33%	38.77%	39.83%	38.45%	76.7%	41.78%		55.81%	55.06%	77.72%	25.13%	39.05%	11.34%	24.13%


Tinymembench - Standard Memcpy - Standard Memset
Normalized
TTSIOD 3D Renderer - P.R.W.S.S.M (FPS)
Normalized

Phoronix Test Suite

Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison

Stan 0 0 8 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0 0 2 2 2 0 0 0
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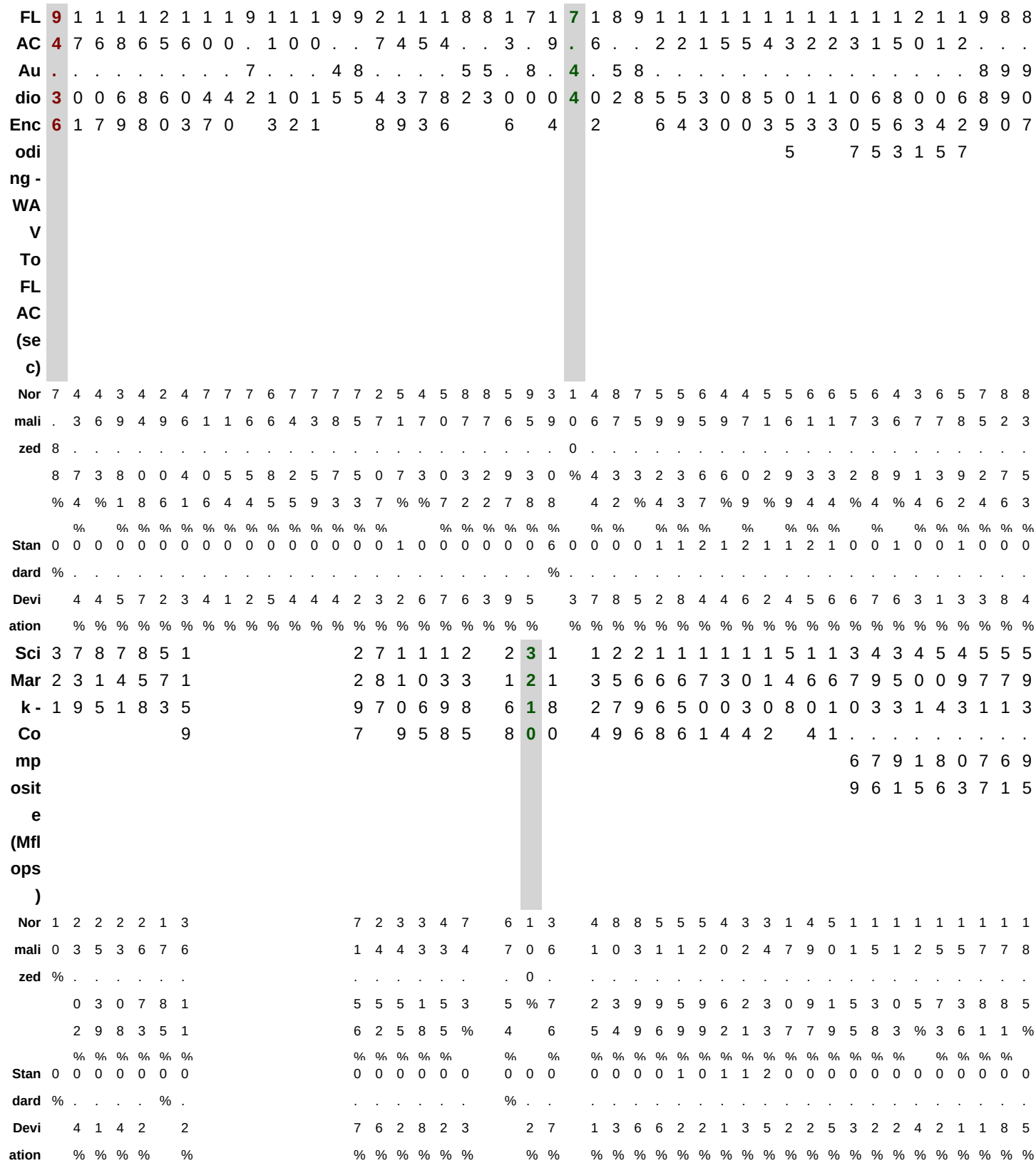
AOBench - 2048 x 2048 - Total Time (sec)	**256.20**	72.53	67.62	80.87	72.57	112.62	66.91	42.12	42.12	39.19	44.38	40.44
Normalized	13.28%	46.9%	50.31%	42.07%	46.88%	30.21%	50.84%	80.77%	80.77%	86.81%	76.61%	84.12%
Standard Deviation	0.8%	0.1%	0.7%	0.1%	0.4%	0.1%	0%	0.7%	0.8%	0.2%	0.5%	0.8%

AOBench - 2048 x 2048 - Total Time (sec)	41.00	38.19	40.19	81.53	50.65	58.42	55.56	35.72	39.19	43.67	34.05	68.13
Normalized	82.98%	89.08%	84.65%	41.73%	67.17%	58.23%	61.23%	95.24%	86.81%	77.9%	99.91%	49.93%
Standard Deviation	0.6%	0.3%	0.7%	0.7%	0.1%	0.2%	0.3%	0.1%	0.4%	2.1%	0.9%	0.9%

AOBench - 2048 x 2048 - Total Time (sec)	**34.02**	59.03	34.19	58.07	43.88	42.51	37.85	52.22	54.03	50.25	39.662	37.00
Normalized	100%	57.63%	99.5%	58.58%	77.03%	80.03%	89.88%	65.15%	62.97%	67.7%	85.77%	91.95%
Standard Deviation	0.5%	0.2%	0.7%	0.8%	0.6%	0.7%	0.3%	0.6%	0.1%	0.1%	0.3%	0.3%

AOBench - 2048 x 2048 - Total Time (sec)	36.67	57.106	42.734	59.436	55.159	41.575	42.509	36.690	35.000	35.080	144.560	103.246
Normalized	92.77%	59.57%	79.61%	57.24%	61.68%	81.83%	80.03%	92.72%	97.2%	96.98%	23.53%	32.95%
Standard Deviation	0.4%	0.3%	0%	0.2%	0.1%	0.3%	0.3%	0.1%	0.1%	0.2%	1.7%	0.1%

Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison



LAME MP3 Encoding - WAV To MP3 (sec)	46.26	13.54	13.37	15.19	13.57	22.34	13.30	8.75	8.74	8.09	9.32	8.43
Normalized	17.08%	58.35%	59.09%	52.01%	58.22%	35.36%	59.4%	90.29%	90.39%	97.65%	84.76%	93.71%
Standard Deviation	0.2%	0.5%	0.1%	0.3%	0.3%	0.1%	0.2%	1.2%	0.2%	0.1%	0.2%	0.6%
OpenSSL - R.4.b.P (Signs/sec)	62.70	170.03	266.55	300.43	338.53	232.80	705.73	812.17	1164	1300	1382	1595
Normalized	1.34%	3.63%	5.68%	6.41%	7.22%	4.96%	15.05%	17.32%	24.83%	27.72%	29.46%	34.01%
Standard Deviation	0.3%	1.3%	10.1%	1.1%	1.2%	0.1%	0.1%	0.2%	0%	0.3%	0%	0%

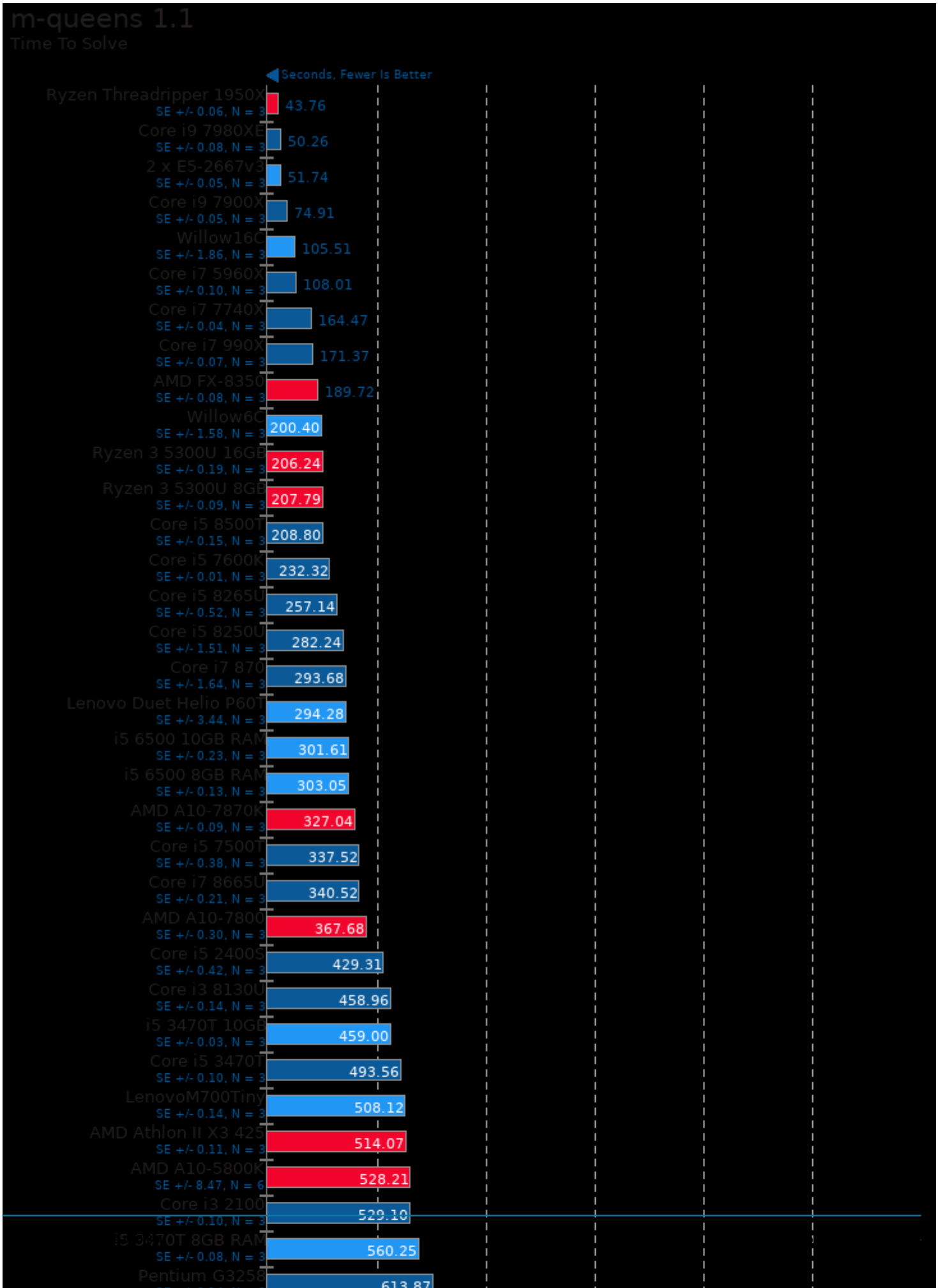
LAME MP3 Encoding - WAV To MP3 (sec)	8.44	7.90	9.07	17.61	12.35	14.08	13.27	8.95	9.04	12.06	8.39	16.48
Normalized	93.6%	100%	87.1%	44.86%	63.97%	56.11%	59.53%	88.27%	87.39%	65.51%	94.16%	47.94%
Standard Deviation	0.5%	0.2%	0.8%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.6%	0.1%	7.6%
OpenSSL - R.4.b.P (Signs/sec)	1473	1725	3000	125.80	286.00	235.47	359.20	1147	1645	1203	1367	305.07
Normalized	31.41%	36.79%	63.98%	2.68%	6.1%	5.02%	7.66%	24.46%	35.07%	25.65%	29.14%	6.51%
Standard Deviation	0.3%	0%	0.1%	0.1%	0.9%	0%	0%	2.3%	2.7%	0.1%	0.2%	1.1%

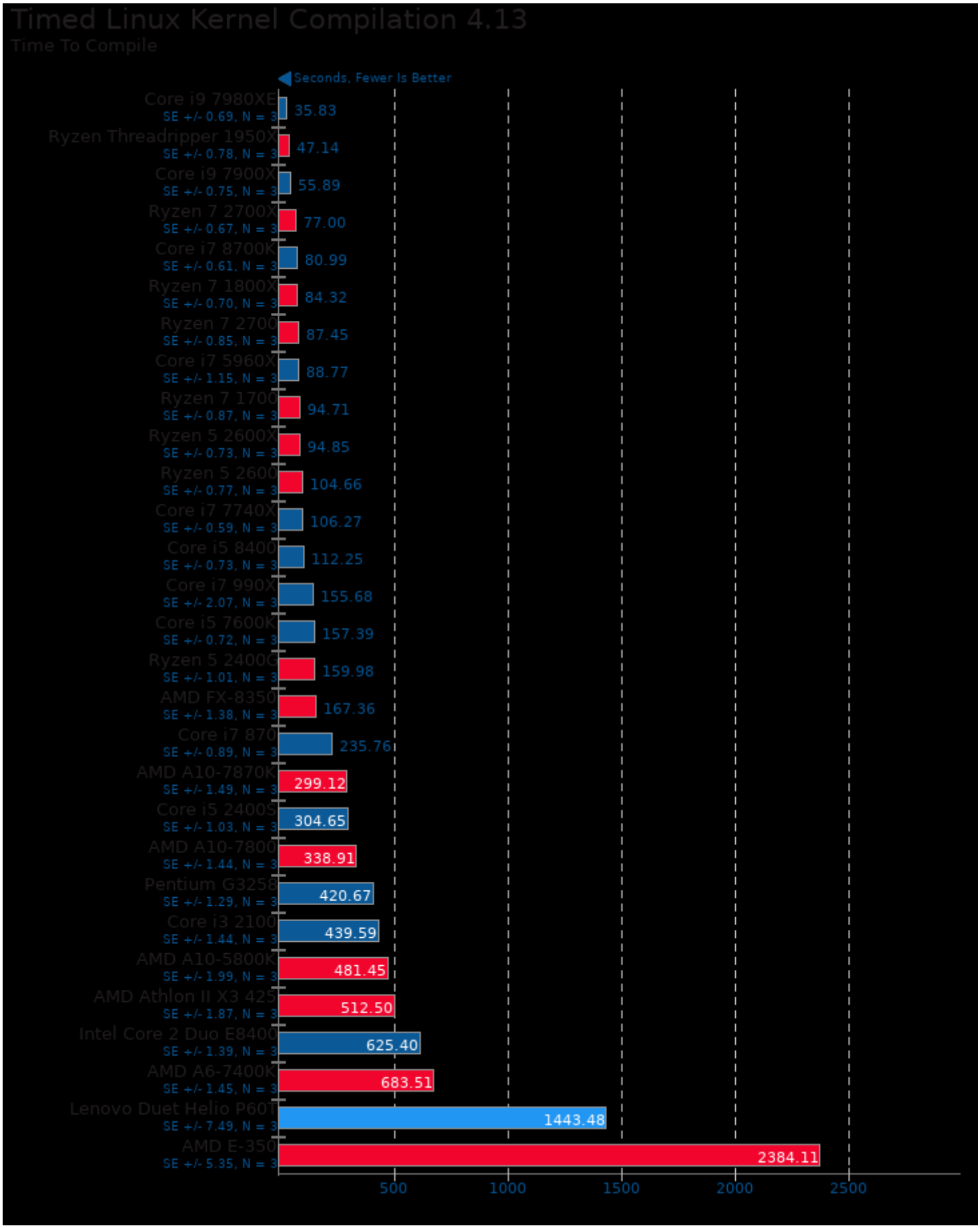
LAME MP3 Encoding - WAV To MP3 (sec)	7.90	13.69	8.76	11.27	12.97	12.56	10.53	11.83	12.39	11.38	35.941	10.25
Normalized	100%	57.71%	90.18%	70.1%	60.91%	62.9%	75.02%	66.78%	63.76%	69.42%	21.98%	77.07%
Standard Deviation	0.2%	0.1%	0.9%	0.3%	0.5%	0.8%	0.3%	1.1%	0.5%	0.3%	0%	0.1%
OpenSSL - R.4.b.P (Signs/sec)	1980	526.20	3037	4689	794.37	1392	1160	254.00	221.10	273.27		913.60
Normalized	42.22%	11.22%	64.76%	100%	16.94%	29.68%	24.75%	5.42%	4.71%	5.83%		19.48%
Standard Deviation	0%	0%	0.5%	0.3%	0.5%	14.2%	1.6%	0.3%	0.2%	0.1%		0.7%

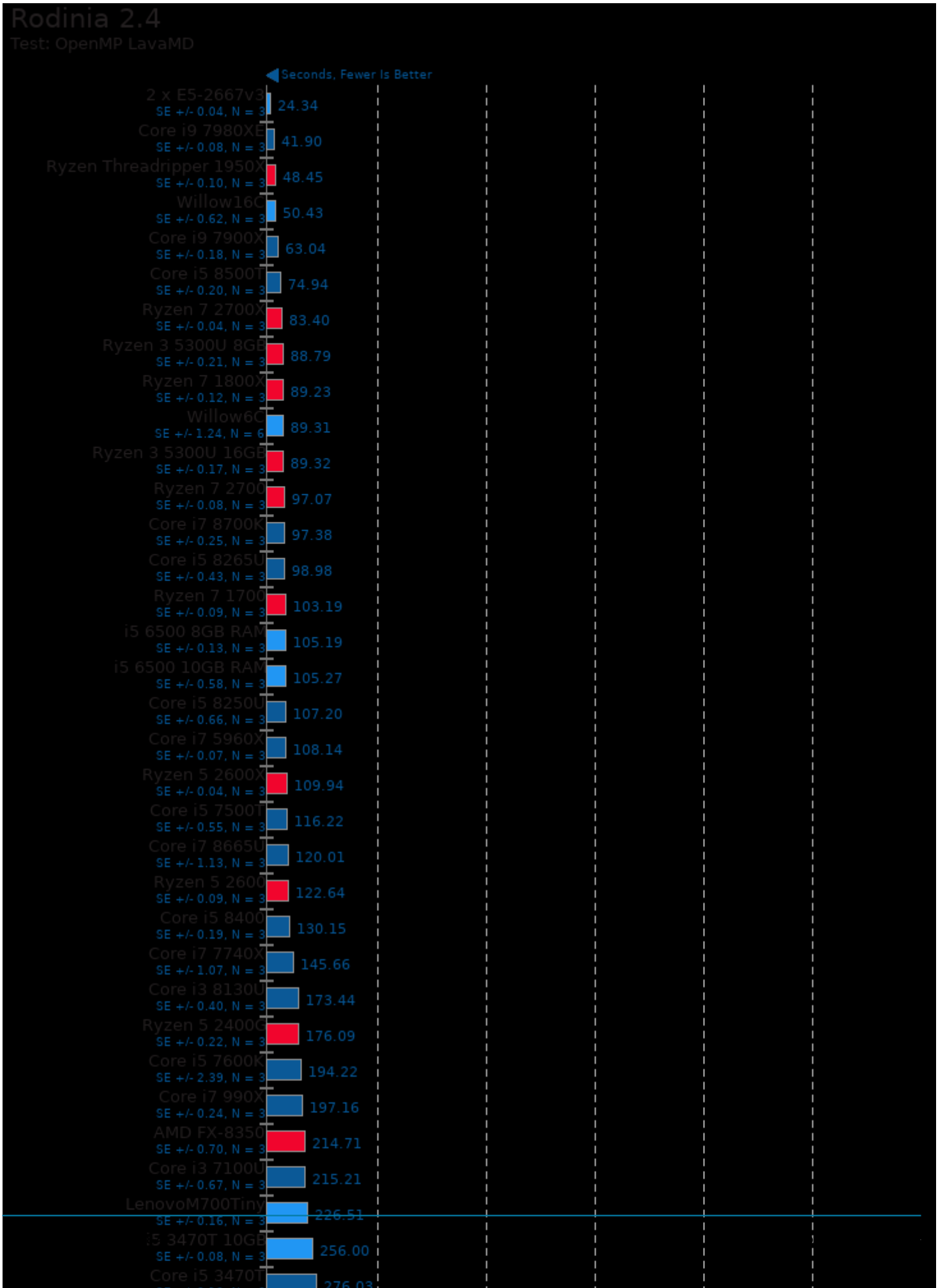
LAME MP3 Encoding - WAV To MP3 (sec)	10.19	49.711	37.276	51.672		35.887	36.638	31.818	28.871	28.804	129.819	110.077
Normalized	77.53%	15.89%	21.19%	15.29%		22.01%	21.56%	24.83%	27.36%	27.43%	6.09%	7.18%
Standard Deviation	0.1%	0.7%	0%	0.1%		0.4%	0.1%	0.1%	0.4%	0.3%	0.9%	0.2%
OpenSSL - R.4.b.P (Signs/sec)	915.27										72.7	
Normalized	19.52%										1.55%	
Standard Deviation	1.1%										2.3%	

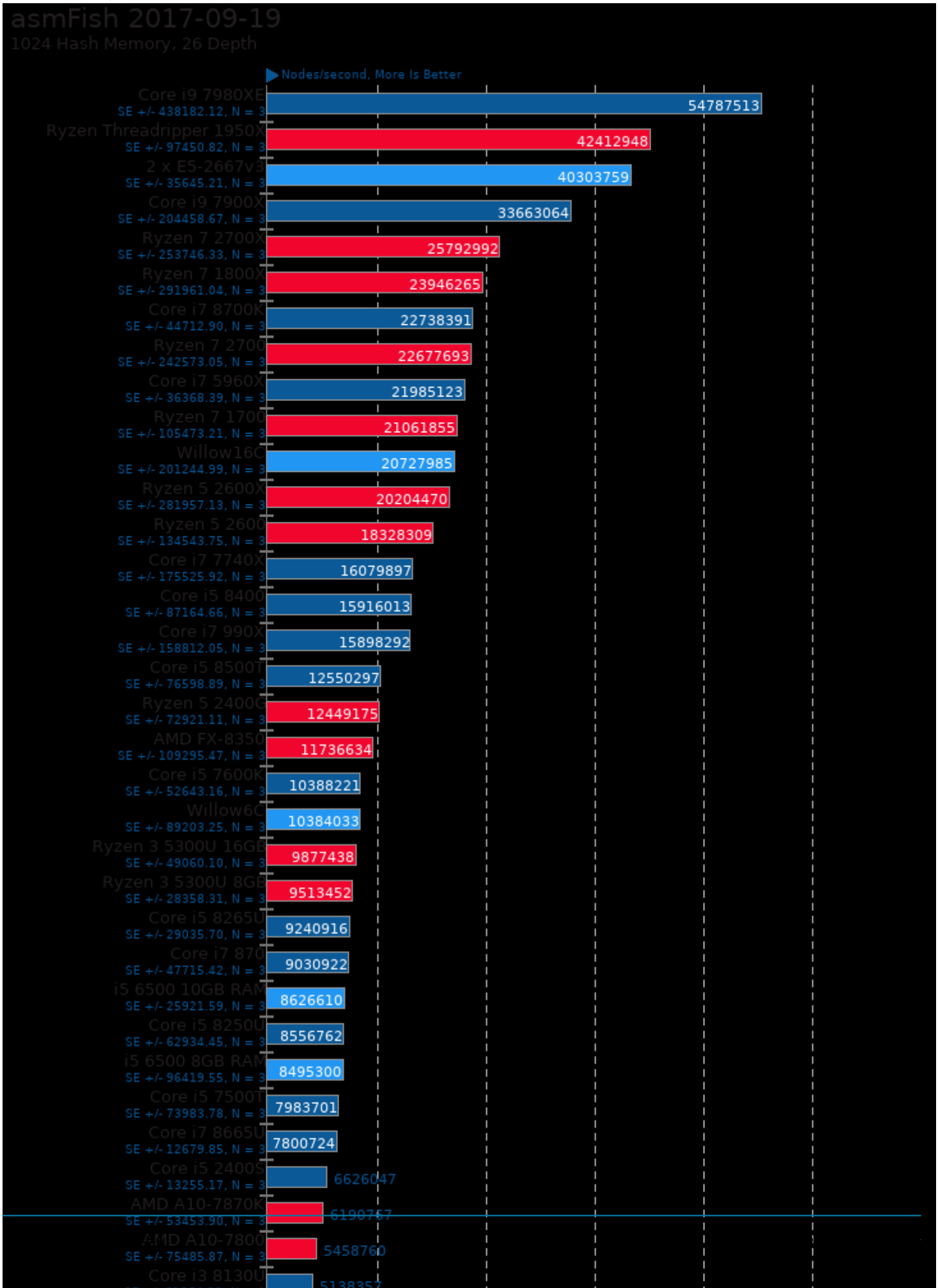
PolyBench-C.C (sec)	77.08	7.74	7.34	8.63	8.23	25.48	8.41	4.22	7.30	13.14	14.03	13.20	5.38	12.21	5.01	13.18	12.10	4.74	5.70	29.47	31.55		3.35	3.56	3.23	29.969	2.06	2.06	8.553	6.961	9.606	17.167	6.890	6.832	5.925	3.036	2.707	69.349	27.255
Normalized	2.67%	26.61%	28.07%	23.87%	25.03%	8.08%	24.49%	48.82%	28.22%	15.68%	14.68%	15.61%	38.29%	16.87%	41.12%	15.63%	17.02%	43.46%	36.14%	6.99%	6.53%		61.49%	57.87%	63.78%	6.87%	100%	100%	24.09%	29.59%	21.44%	12%	29.9%	30.15%	34.77%	67.85%	76.1%	2.97%	7.56%
Standard Deviation	1.1%	0.4%	0.1%	0.1%	15.8%	0.1%	17.4%	0.2%	0%	1%	0.2%	0.3%	0.1%	1.2%	0%	0%	0.2%	0.1%	0%	7.7%	1%		9.5%	10.5%	9.9%	0.6%	0.6%	0.3%	0.6%	0.4%	0.2%	0.7%	0.4%	0.2%	0.3%	0.9%	0.4%	2.4%	2.5%
PolyBench-C.C (sec)	77.20	7.85	7.36	8.65	7.70	25.47	8.02	4.22	7.30	13.08	14.03	13.18	5.39	12.21	4.99	18.19	12.09	4.73	5.71	31.79	31.68	2.01	3.62	3.54	3.24	29.598	2.06	2.06	8.593	6.946	9.568	17.163	6.899	6.840	5.936	3.040	2.731	68.123	27.723
Normalized	2.6%	25.61%	27.31%	23.24%	26.1%	7.89%	25.06%	47.63%	27.53%	15.37%	14.33%	15.25%	37.29%	16.46%	40.28%	11.05%	16.63%	42.49%	35.2%	6.32%	6.34%	100%	55.52%	56.78%	62.04%	6.79%	97.57%	97.57%	23.39%	28.94%	21.01%	11.71%	29.13%	29.39%	33.86%	66.12%	73.6%	2.95%	7.25%
Standard Deviation	0.4%	3.2%	0.1%	0.1%	0%	0.1%	12.3%	0.1%	0%	0.2%	0.2%	0.3%	0.1%	0.8%	0.1%	61.5%	0.2%	0.1%	0.1%	4.4%	1%		1.1%	10.1%	9.8%	1.2%	1.2%	0.5%	0.2%	0.2%	0.2%	0.1%	0.3%	0.1%	0%	0.6%	0.2%	1%	2.4%

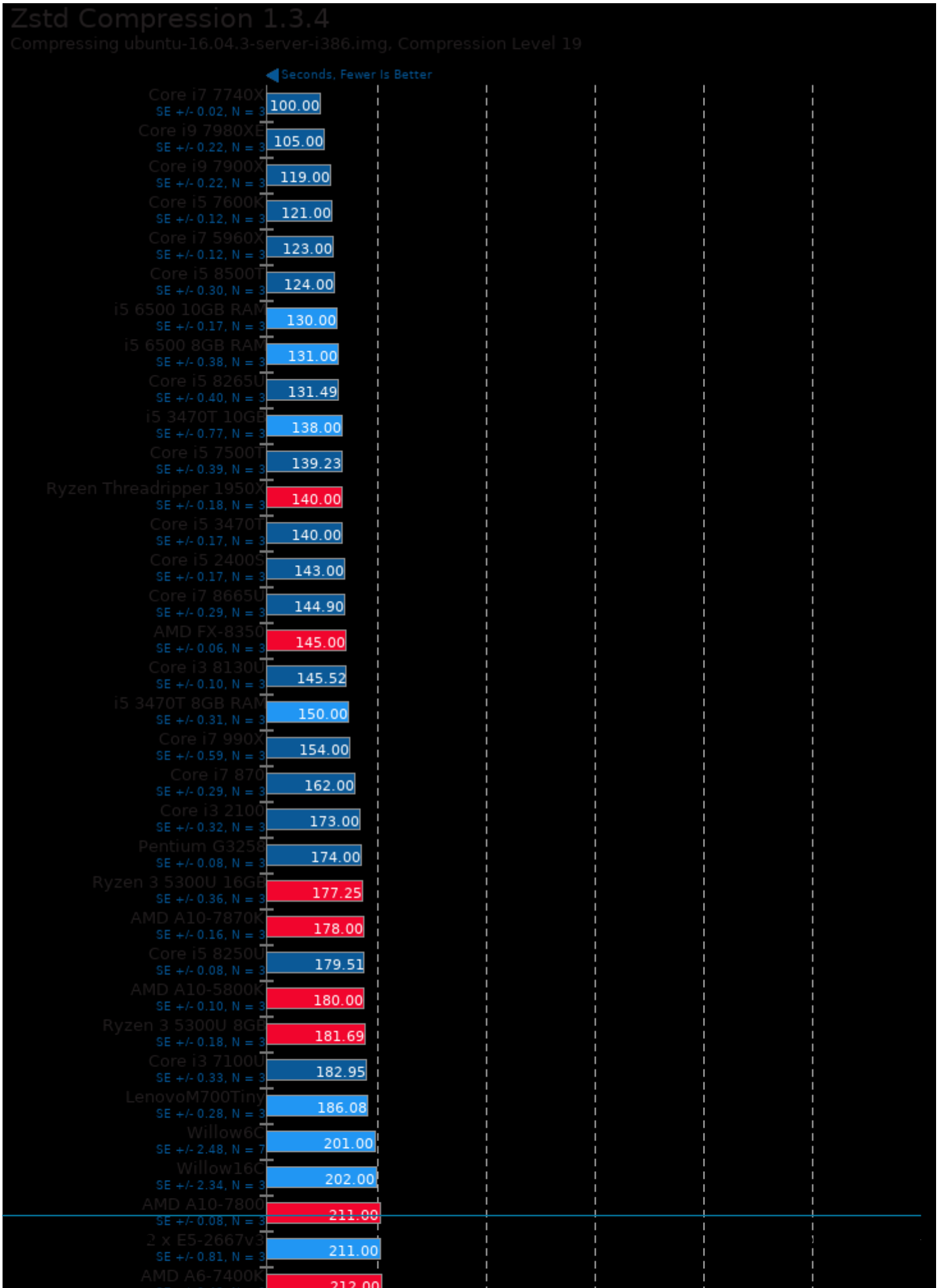
	PolyBench-C-3.M.M (sec)	Normalized	Standard Deviation	TSCP - A.C.P (Nodes/s)	Normalized	Standard Deviation
	62.30	4.86%	0%	322243	21.57%	0.1%
	9.42	32.17%	0.6%	741690	49.64%	0.2%
	8.97	33.78%	0.8%	705583	47.22%	0.1%
	10.21	29.68%	0.2%	665834	44.56%	0.1%
	8.99	33.7%	0.3%	745306	49.88%	0.3%
	35.49	8.54%	0.3%	546087	36.55%	0.4%
	8.50	35.65%	1.7%	710132	47.52%	0.1%
				1038030	69.47%	0.2%
				1032204	69.08%	0.4%
				1124053	75.23%	0.4%
				975902	65.31%	0.7%
				1074070	71.88%	0.3%
				1075740	71.99%	0.1%
				1154674	77.27%	0.2%
	3.93	77.1%	0.4%	1100685	73.66%	0.3%
	15.05	20.13%	0.1%	584940	39.15%	0.2%
	13.60	22.28%	3%	1087635	72.79%	0.1%
	21.49	14.1%	0%	874250	58.51%	
	20.20	15%	0.1%	927548	62.07%	0.1%
	3.72	81.45%	2.5%	1370784	91.74%	0.3%
				1288070	86.2%	0.1%
	10.59	28.61%	0.8%	1174368	78.59%	0.2%
	3.03	100%	0.7%	1465620	98.08%	0.2%
	22.28	13.6%	0%	691112	46.25%	0.9%
				1489404	99.68%	0.3%
	20.02	15.13%	0.1%	771622	51.64%	0.4%
				1494250	100%	0.2%
	3.18	95.28%	3.3%	1368748	91.6%	0.4%
	21.30	14.23%	21.7%	1072062	71.75%	1%
	23.32	12.99%	1.3%	1050282	70.29%	3.4%
	3.77	80.37%	0.5%	1029108	68.87%	0.2%
	13.33	22.73%	1%	937573	62.75%	1.8%
	14.09	21.5%	0.6%	936505	62.67%	1.3%
	13.01	23.29%	0.5%	945397	63.27%	0.5%
	19.303	15.7%	1.4%	1165922	78.03%	0.3%
	4.13	73.37%	0.9%	1053938	70.53%	0.5%
	4.123	73.54%	0.9%	1062050	71.08%	0.2%
	6.243	48.53%	0.6%	804087	53.81%	0.7%
	4.482	67.6%	2.3%	953234	63.79%	0.1%
	6.545	46.29%	0.4%	695082	46.52%	0.3%
	25.790	11.75%	0.1%	799692	53.52%	1.1%
	5.695	53.2%	2.2%	991322	66.34%	0.2%
	5.085	59.59%	0.3%	977598	65.42%	0.2%
	4.221	71.78%	0.7%	1123595	75.19%	0.4%
	4.901	61.82%	1.4%	1173903	78.56%	0.6%
	3.473	87.24%	0.7%	1175426	78.66%	0.8%
	116.163	2.61%	1.6%	436863	29.24%	0.7%
	33.945	8.93%	1.7%	438657	29.36%	0%

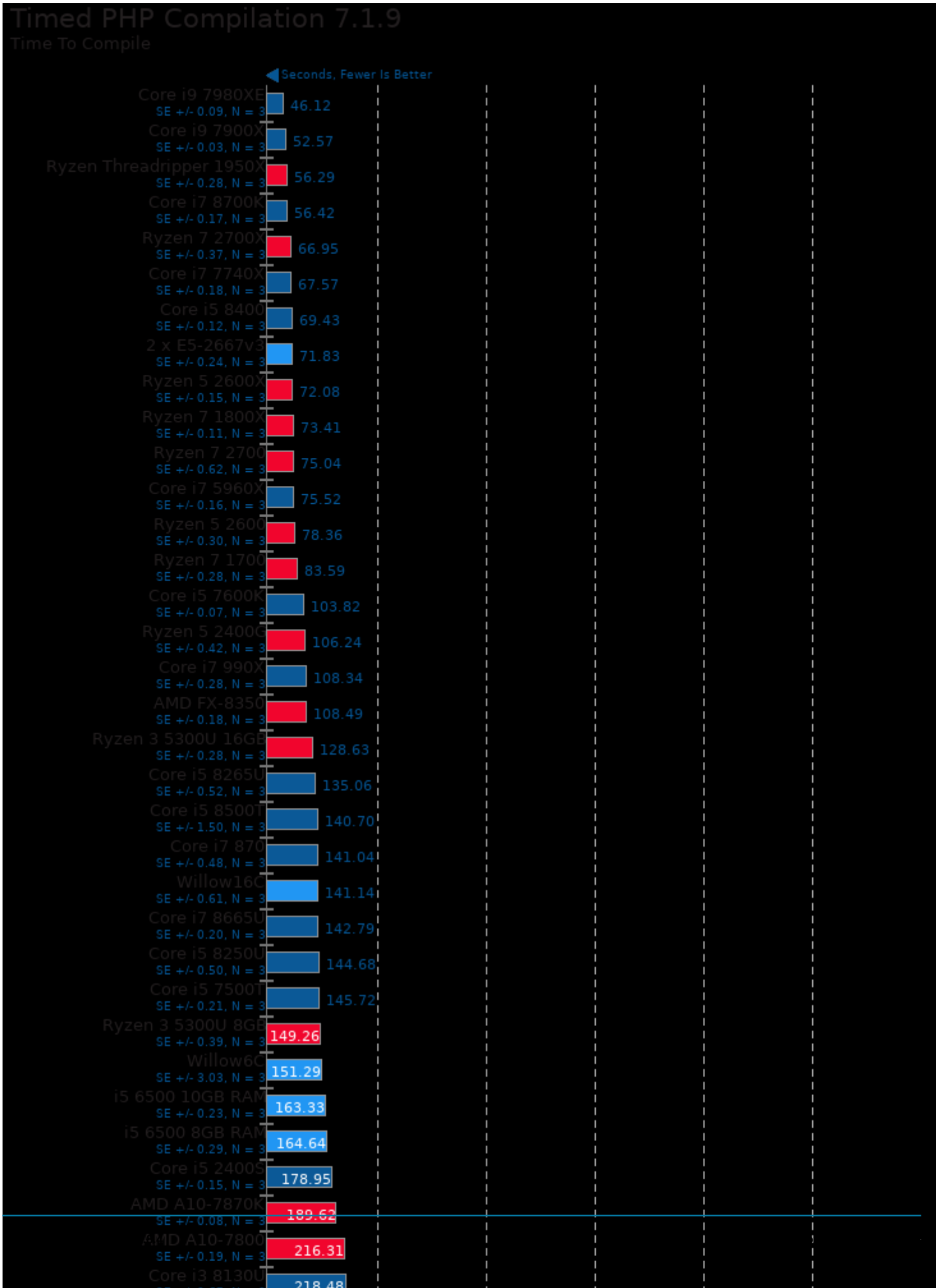

m-queens 1.1
Time To Solve
Seconds, Fewer Is Better
Ryzen Threadripper 1950X
SE +/- 0.06, N = 3
43.76
Core i9 7980XE
SE +/- 0.08, N = 3
50.26
2 x E5-2667v3
SE +/- 0.05, N = 3
51.74
Core i9 7900X
SE +/- 0.05, N = 3
74.91
Willow16C
SE +/- 1.86, N = 3
105.51
Core i7 5960X
SE +/- 0.10, N = 3
108.01
Core i7 7740X
SE +/- 0.04, N = 3
164.47
Core i7 990X
SE +/- 0.07, N = 3
171.37
AMD FX-8350
SE +/- 0.08, N = 3
189.72
Willow6C
SE +/- 1.58, N = 3
200.40
Ryzen 3 5300U 16GB
SE +/- 0.19, N = 3
206.24
Ryzen 3 5300U 8GB
SE +/- 0.09, N = 3
207.79
Core i5 8500T
SE +/- 0.15, N = 3
208.80
Core i5 7600K
SE +/- 0.01, N = 3
232.32
Core i5 8265U
SE +/- 0.52, N = 3
257.14
Core i5 8250U
SE +/- 1.51, N = 3
282.24
Core i7 870
SE +/- 1.64, N = 3
293.68
Lenovo Duet Helio P60T
SE +/- 3.44, N = 3
294.28
i5 6500 10GB RAM
SE +/- 0.23, N = 3
301.61
i5 6500 8GB RAM
SE +/- 0.13, N = 3
303.05
AMD A10-7870K
SE +/- 0.09, N = 3
327.04
Core i5 7500T
SE +/- 0.38, N = 3
337.52
Core i7 8665U
SE +/- 0.21, N = 3
340.52
AMD A10-7800
SE +/- 0.30, N = 3
367.68
Core i5 2400S
SE +/- 0.42, N = 3
429.31
Core i3 8130U
SE +/- 0.14, N = 3
458.96
i5 3470T 10GB
SE +/- 0.03, N = 3
459.00
Core i5 3470T
SE +/- 0.10, N = 3
493.56
LenovoM700Tiny
SE +/- 0.14, N = 3
508.12
AMD Athlon II X3 425
SE +/- 0.11, N = 3
514.07
AMD A10-5800K
SE +/- 8.47, N = 6
528.21
Core i3 2100
SE +/- 0.10, N = 3
529.10
i5 3470T 8GB RAM
SE +/- 0.08, N = 3
560.25
Pentium G3258
613.87

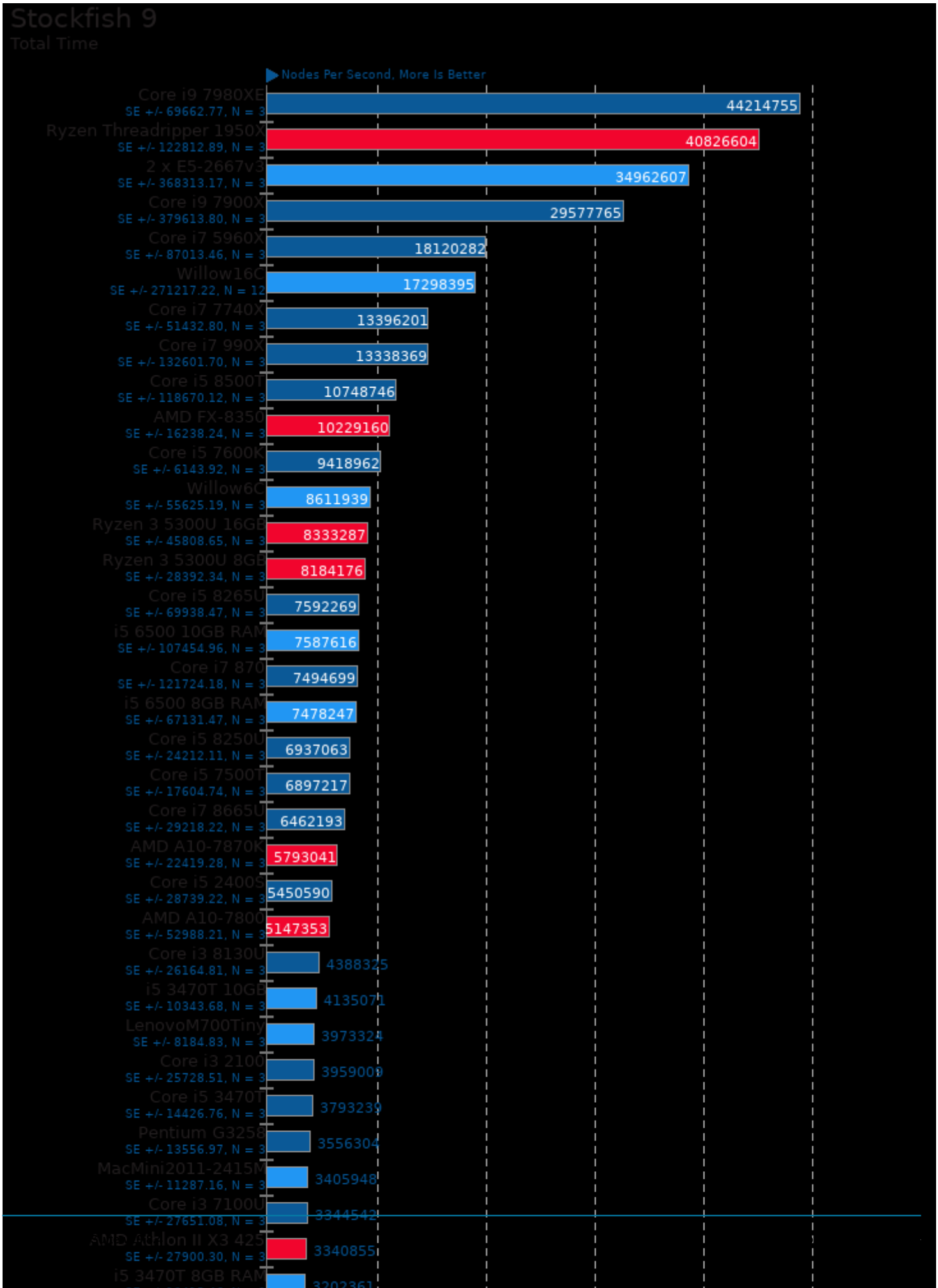

Timed Linux Kernel Compilation 4.13
Time To Compile
Seconds, Fewer Is Better
Core i9 7980XE
SE +/- 0.69, N = 3
35.83
Ryzen Threadripper 1950X
SE +/- 0.78, N = 3
47.14
Core i9 7900X
SE +/- 0.75, N = 3
55.89
Ryzen 7 2700X
SE +/- 0.67, N = 3
77.00
Core i7 8700K
SE +/- 0.61, N = 3
80.99
Ryzen 7 1800X
SE +/- 0.70, N = 3
84.32
Ryzen 7 2700
SE +/- 0.85, N = 3
87.45
Core i7 5960X
SE +/- 1.15, N = 3
88.77
Ryzen 7 1700
SE +/- 0.87, N = 3
94.71
Ryzen 5 2600X
SE +/- 0.73, N = 3
94.85
Ryzen 5 2600
SE +/- 0.77, N = 3
104.66
Core i7 7740X
SE +/- 0.59, N = 3
106.27
Core i5 8400
SE +/- 0.73, N = 3
112.25
Core i7 990X
SE +/- 2.07, N = 3
155.68
Core i5 7600K
SE +/- 0.72, N = 3
157.39
Ryzen 5 2400G
SE +/- 1.01, N = 3
159.98
AMD FX-8350
SE +/- 1.38, N = 3
167.36
Core i7 870
SE +/- 0.89, N = 3
235.76
AMD A10-7870K
SE +/- 1.49, N = 3
299.12
Core i5 2400S
SE +/- 1.03, N = 3
304.65
AMD A10-7800
SE +/- 1.44, N = 3
338.91
Pentium G3258
SE +/- 1.29, N = 3
420.67
Core i3 2100
SE +/- 1.44, N = 3
439.59
AMD A10-5800K
SE +/- 1.99, N = 3
481.45
AMD Athlon II X3 425
SE +/- 1.87, N = 3
512.50
Intel Core 2 Duo E8400
SE +/- 1.39, N = 3
625.40
AMD A6-7400K
SE +/- 1.45, N = 3
683.51
Lenovo Duet Helio P60T
SE +/- 7.49, N = 3
1443.48
AMD E-350
SE +/- 5.35, N = 3
2384.11
500
1000
1500
2000
2500

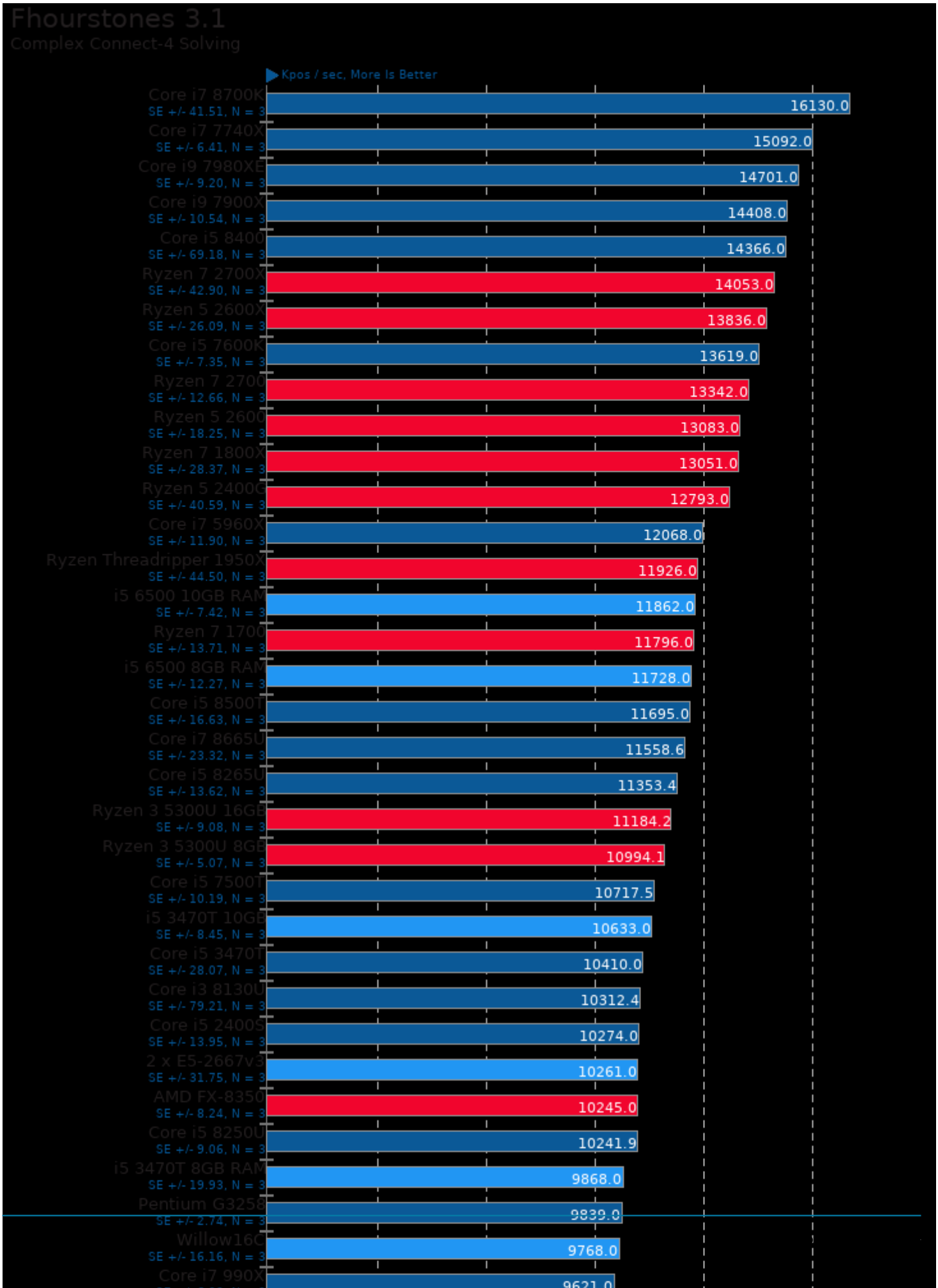

Rodinia 2.4
Test: OpenMP LavaMD
Seconds, Fewer Is Better
2 x E5-2667v3
SE +/- 0.04, N = 3
24.34
Core i9 7980XE
SE +/- 0.08, N = 3
41.90
Ryzen Threadripper 1950X
SE +/- 0.10, N = 3
48.45
Willow16C
SE +/- 0.62, N = 3
50.43
Core i9 7900X
SE +/- 0.18, N = 3
63.04
Core i5 8500T
SE +/- 0.20, N = 3
74.94
Ryzen 7 2700X
SE +/- 0.04, N = 3
83.40
Ryzen 3 5300U 8GB
SE +/- 0.21, N = 3
88.79
Ryzen 7 1800X
SE +/- 0.12, N = 3
89.23
Willow6C
SE +/- 1.24, N = 6
89.31
Ryzen 3 5300U 16GB
SE +/- 0.17, N = 3
89.32
Ryzen 7 2700
SE +/- 0.08, N = 3
97.07
Core i7 8700K
SE +/- 0.25, N = 3
97.38
Core i5 8265U
SE +/- 0.43, N = 3
98.98
Ryzen 7 1700
SE +/- 0.09, N = 3
103.19
i5 6500 8GB RAM
SE +/- 0.13, N = 3
105.19
i5 6500 10GB RAM
SE +/- 0.58, N = 3
105.27
Core i5 8250U
SE +/- 0.66, N = 3
107.20
Core i7 5960X
SE +/- 0.07, N = 3
108.14
Ryzen 5 2600X
SE +/- 0.04, N = 3
109.94
Core i5 7500T
SE +/- 0.55, N = 3
116.22
Core i7 8665U
SE +/- 1.13, N = 3
120.01
Ryzen 5 2600
SE +/- 0.09, N = 3
122.64
Core i5 8400
SE +/- 0.19, N = 3
130.15
Core i7 7740X
SE +/- 1.07, N = 3
145.66
Core i3 8130U
SE +/- 0.40, N = 3
173.44
Ryzen 5 2400G
SE +/- 0.22, N = 3
176.09
Core i5 7600K
SE +/- 2.39, N = 3
194.22
Core i7 990X
SE +/- 0.24, N = 3
197.16
AMD FX-8350
SE +/- 0.70, N = 3
214.71
Core i3 7100U
SE +/- 0.67, N = 3
215.21
LenovoM700Tiny
SE +/- 0.16, N = 3
226.51
i5 3470T 10GB
SE +/- 0.08, N = 3
256.00
Core i5 3470T
276.03

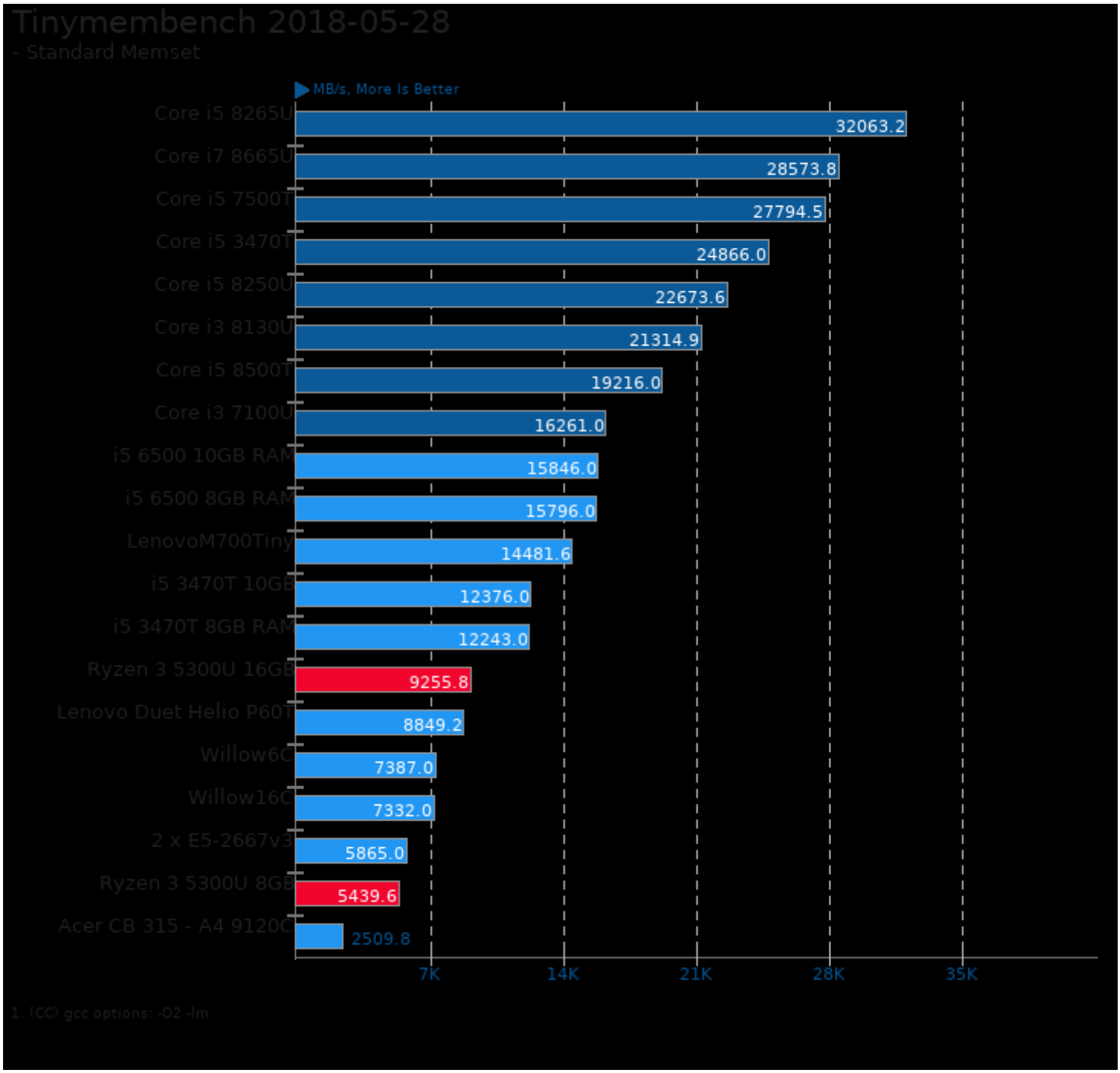

asmFish 2017-09-19
1024 Hash Memory, 26 Depth
Nodes/second, More Is Better
Core i9 7980XE
SE +/- 438182.12, N = 3
54787513
Ryzen Threadripper 1950X
SE +/- 97450.82, N = 3
42412948
2 x E5-2667v3
SE +/- 35645.21, N = 3
40303759
Core i9 7900X
SE +/- 204458.67, N = 3
33663064
Ryzen 7 2700X
SE +/- 253746.33, N = 3
25792992
Ryzen 7 1800X
SE +/- 291961.04, N = 3
23946265
Core i7 8700K
SE +/- 44712.90, N = 3
22738391
Ryzen 7 2700
SE +/- 242573.05, N = 3
22677693
Core i7 5960X
SE +/- 36368.39, N = 3
21985123
Ryzen 7 1700
SE +/- 105473.21, N = 3
21061855
Willow16C
SE +/- 201244.99, N = 3
20727985
Ryzen 5 2600X
SE +/- 281957.13, N = 3
20204470
Ryzen 5 2600
SE +/- 134543.75, N = 3
18328309
Core i7 7740X
SE +/- 175525.92, N = 3
16079897
Core i5 8400
SE +/- 87164.66, N = 3
15916013
Core i7 990X
SE +/- 158812.05, N = 3
15898292
Core i5 8500T
SE +/- 76598.89, N = 3
12550297
Ryzen 5 2400G
SE +/- 72921.11, N = 3
12449175
AMD FX-8350
SE +/- 109295.47, N = 3
11736634
Core i5 7600K
SE +/- 52643.16, N = 3
10388221
Willow6C
SE +/- 89203.25, N = 3
10384033
Ryzen 3 5300U 16GB
SE +/- 49060.10, N = 3
9877438
Ryzen 3 5300U 8GB
SE +/- 28358.31, N = 3
9513452
Core i5 8265U
SE +/- 29035.70, N = 3
9240916
Core i7 870
SE +/- 47715.42, N = 3
9030922
i5 6500 10GB RAM
SE +/- 25921.59, N = 3
8626610
Core i5 8250U
SE +/- 62934.45, N = 3
8556762
i5 6500 8GB RAM
SE +/- 96419.55, N = 3
8495300
Core i5 7500T
SE +/- 73983.78, N = 3
7983701
Core i7 8665U
SE +/- 12679.85, N = 3
7800724
Core i5 2400S
SE +/- 13255.17, N = 3
6626047
AMD A10-7870K
SE +/- 53453.90, N = 3
6190767
AMD A10-7800
SE +/- 75485.87, N = 3
5458760
Core i3 8130U
5138357

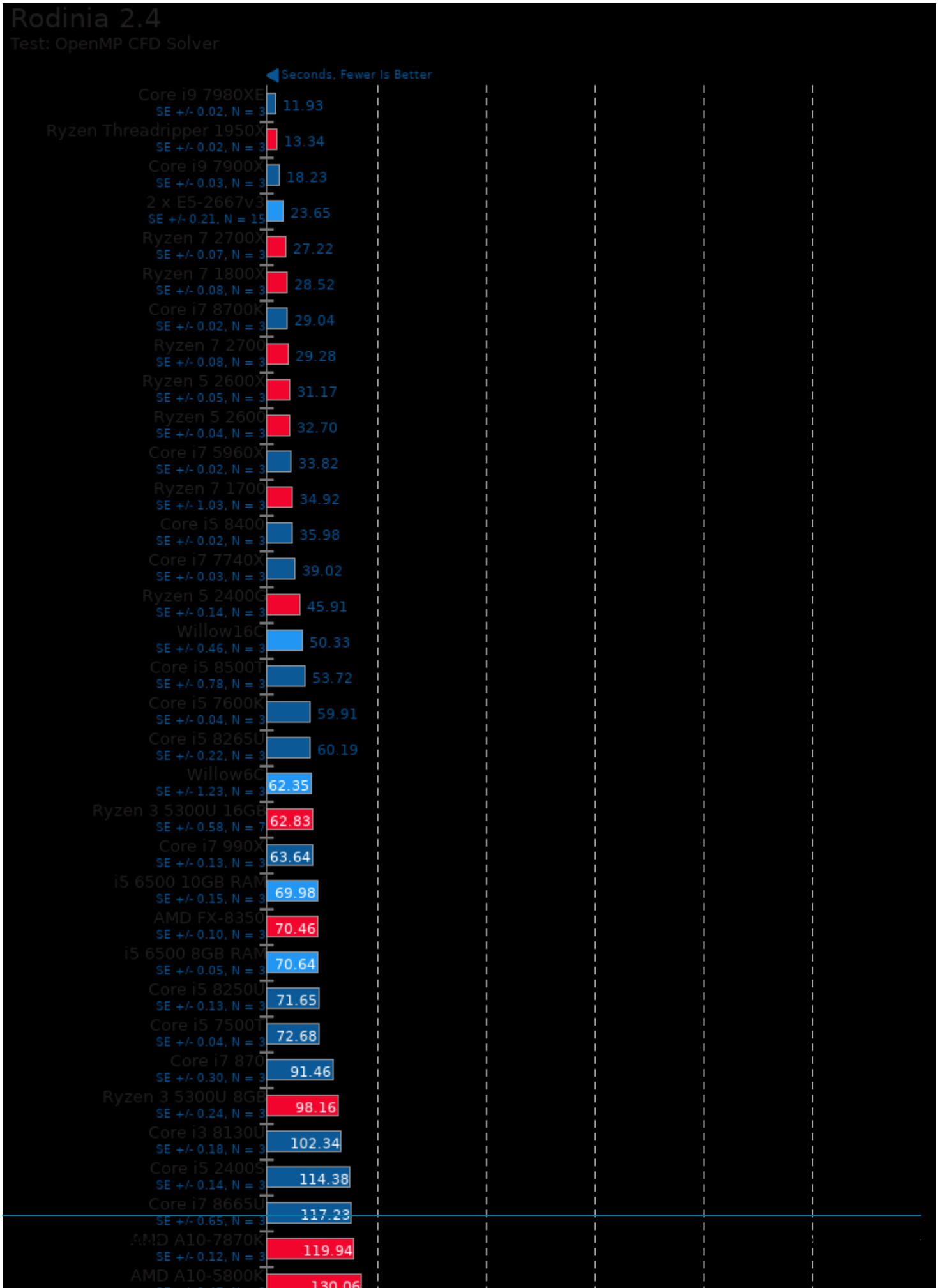

Zstd Compression 1.3.4
Compressing ubuntu-16.04.3-server-i386.img, Compression Level 19
Seconds, Fewer Is Better
Core i7 7740X
SE +/- 0.02, N = 3
100.00
Core i9 7980XE
SE +/- 0.22, N = 3
105.00
Core i9 7900X
SE +/- 0.22, N = 3
119.00
Core i5 7600K
SE +/- 0.12, N = 3
121.00
Core i7 5960X
SE +/- 0.12, N = 3
123.00
Core i5 8500T
SE +/- 0.30, N = 3
124.00
i5 6500 10GB RAM
SE +/- 0.17, N = 3
130.00
i5 6500 8GB RAM
SE +/- 0.38, N = 3
131.00
Core i5 8265U
SE +/- 0.40, N = 3
131.49
i5 3470T 10GB
SE +/- 0.77, N = 3
138.00
Core i5 7500T
SE +/- 0.39, N = 3
139.23
Ryzen Threadripper 1950X
SE +/- 0.18, N = 3
140.00
Core i5 3470T
SE +/- 0.17, N = 3
140.00
Core i5 2400S
SE +/- 0.17, N = 3
143.00
Core i7 8665U
SE +/- 0.29, N = 3
144.90
AMD FX-8350
SE +/- 0.06, N = 3
145.00
Core i3 8130U
SE +/- 0.10, N = 3
145.52
i5 3470T 8GB RAM
SE +/- 0.31, N = 3
150.00
Core i7 990X
SE +/- 0.59, N = 3
154.00
Core i7 870
SE +/- 0.29, N = 3
162.00
Core i3 2100
SE +/- 0.32, N = 3
173.00
Pentium G3258
SE +/- 0.08, N = 3
174.00
Ryzen 3 5300U 16GB
SE +/- 0.36, N = 3
177.25
AMD A10-7870K
SE +/- 0.16, N = 3
178.00
Core i5 8250U
SE +/- 0.08, N = 3
179.51
AMD A10-5800K
SE +/- 0.10, N = 3
180.00
Ryzen 3 5300U 8GB
SE +/- 0.18, N = 3
181.69
Core i3 7100U
SE +/- 0.33, N = 3
182.95
LenovoM700Tiny
SE +/- 0.28, N = 3
186.08
Willow6C
SE +/- 2.48, N = 7
201.00
Willow16C
SE +/- 2.34, N = 3
202.00
AMD A10-7800
SE +/- 0.08, N = 3
211.00
2 x E5-2667v3
SE +/- 0.81, N = 3
211.00
AMD A6-7400K
212.00

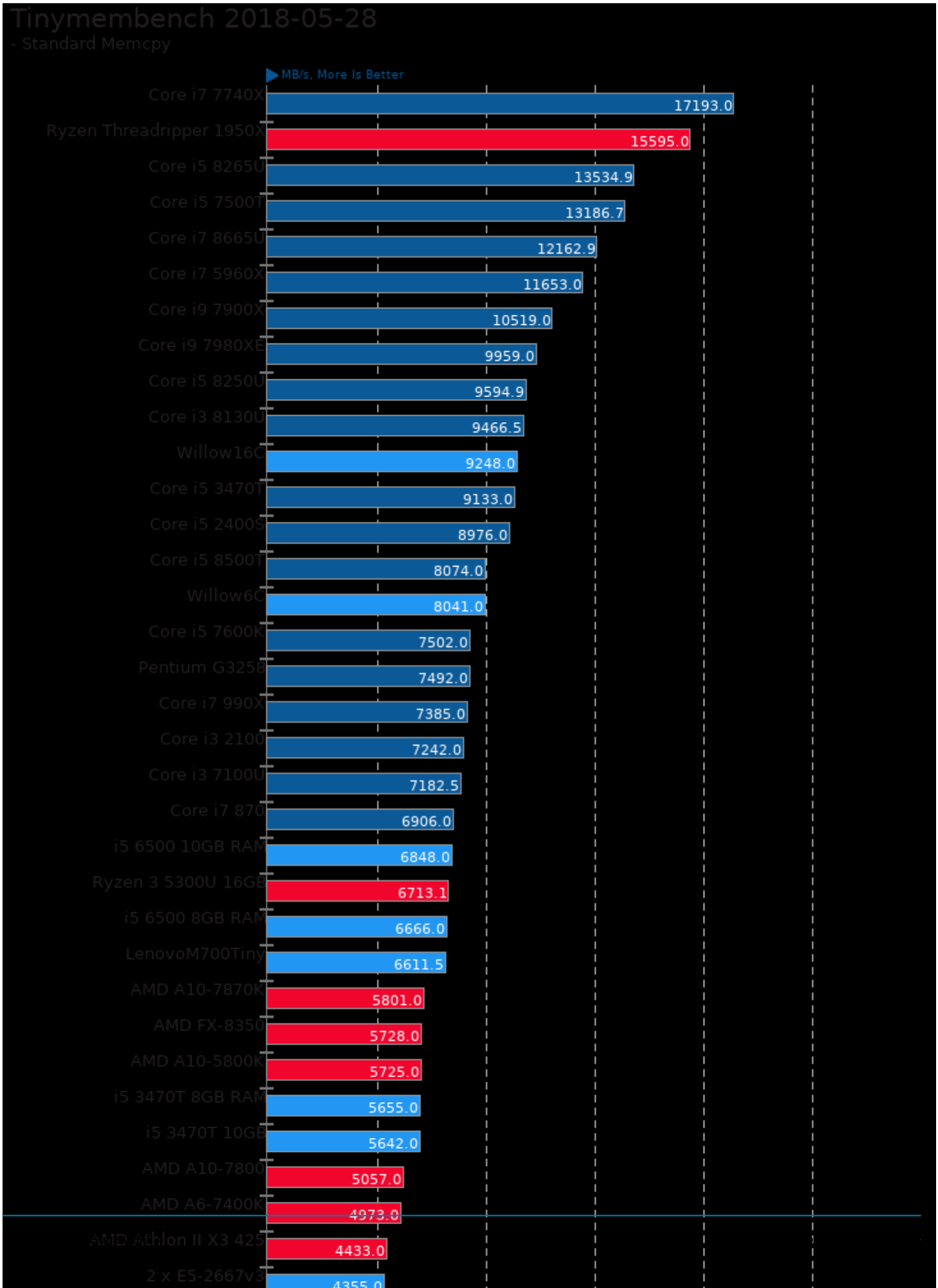

Timed PHP Compilation 7.1.9
Time To Compile
Seconds, Fewer Is Better
Core i9 7980XE
SE +/- 0.09, N = 3
46.12
Core i9 7900X
SE +/- 0.03, N = 3
52.57
Ryzen Threadripper 1950X
SE +/- 0.28, N = 3
56.29
Core i7 8700K
SE +/- 0.17, N = 3
56.42
Ryzen 7 2700X
SE +/- 0.37, N = 3
66.95
Core i7 7740X
SE +/- 0.18, N = 3
67.57
Core i5 8400
SE +/- 0.12, N = 3
69.43
2 x E5-2667v3
SE +/- 0.24, N = 3
71.83
Ryzen 5 2600X
SE +/- 0.15, N = 3
72.08
Ryzen 7 1800X
SE +/- 0.11, N = 3
73.41
Ryzen 7 2700
SE +/- 0.62, N = 3
75.04
Core i7 5960X
SE +/- 0.16, N = 3
75.52
Ryzen 5 2600
SE +/- 0.30, N = 3
78.36
Ryzen 7 1700
SE +/- 0.28, N = 3
83.59
Core i5 7600K
SE +/- 0.07, N = 3
103.82
Ryzen 5 2400G
SE +/- 0.42, N = 3
106.24
Core i7 990X
SE +/- 0.28, N = 3
108.34
AMD FX-8350
SE +/- 0.18, N = 3
108.49
Ryzen 3 5300U 16GB
SE +/- 0.28, N = 3
128.63
Core i5 8265U
SE +/- 0.52, N = 3
135.06
Core i5 8500T
SE +/- 1.50, N = 3
140.70
Core i7 870
SE +/- 0.48, N = 3
141.04
Willow16G
SE +/- 0.61, N = 3
141.14
Core i7 8665U
SE +/- 0.20, N = 3
142.79
Core i5 8250U
SE +/- 0.50, N = 3
144.68
Core i5 7500T
SE +/- 0.21, N = 3
145.72
Ryzen 3 5300U 8GB
SE +/- 0.39, N = 3
149.26
Willow6G
SE +/- 3.03, N = 3
151.29
i5 6500 10GB RAM
SE +/- 0.23, N = 3
163.33
i5 6500 8GB RAM
SE +/- 0.29, N = 3
164.64
Core i5 2400S
SE +/- 0.15, N = 3
178.95
AMD A10-7870K
SE +/- 0.08, N = 3
189.62
AMD A10-7800
SE +/- 0.19, N = 3
216.31
Core i3 8130U
218.48

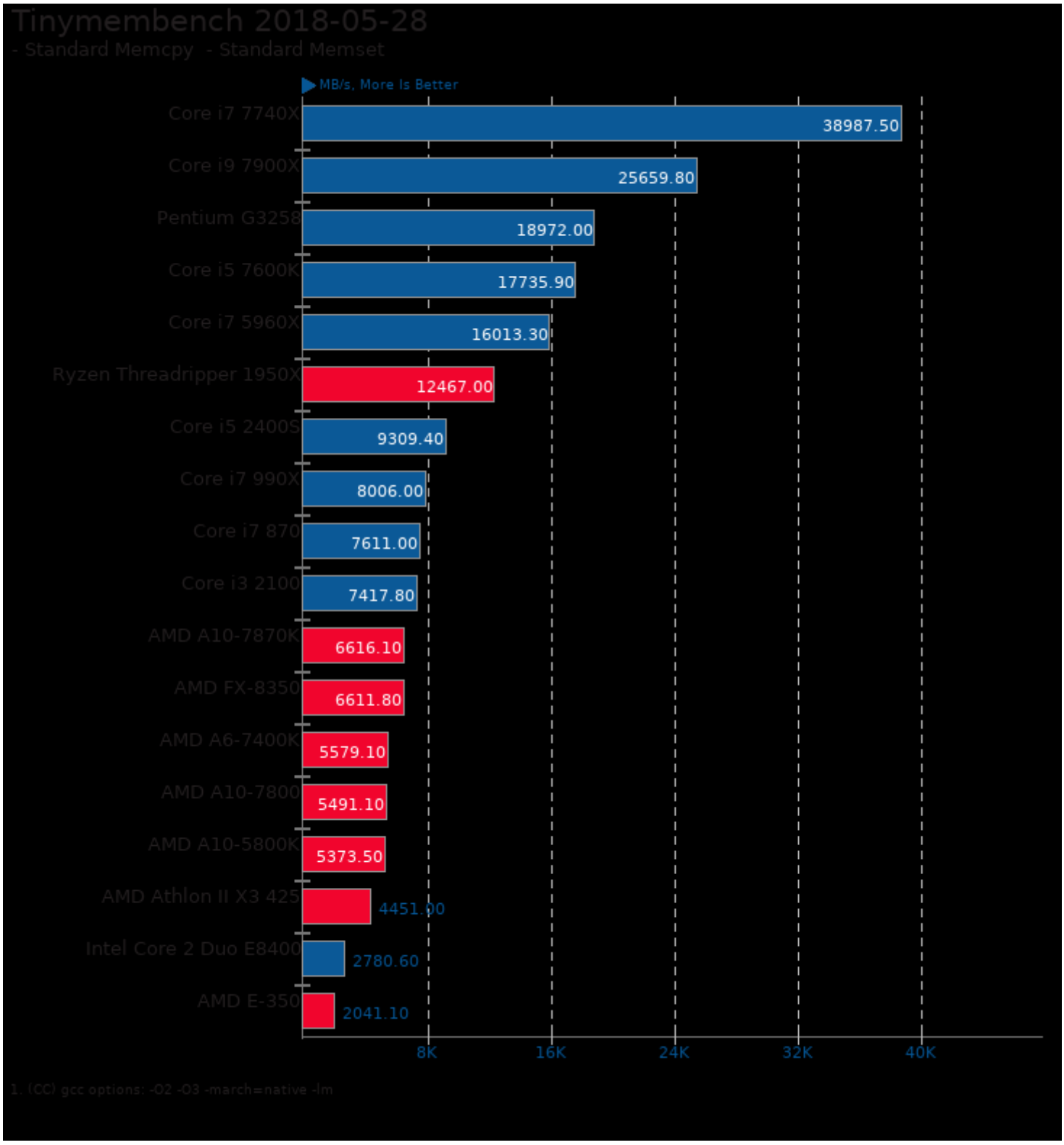

Stockfish 9
Total Time
Nodes Per Second, More Is Better
Core i9 7980XE
SE +/- 69662.77, N = 3
44214755
Ryzen Threadripper 1950X
SE +/- 122812.89, N = 3
40826604
2 x E5-2667v3
SE +/- 368313.17, N = 3
34962607
Core i9 7900X
SE +/- 379613.80, N = 3
29577765
Core i7 5960X
SE +/- 87013.46, N = 3
18120282
Willow16C
SE +/- 271217.22, N = 12
17298395
Core i7 7740X
SE +/- 51432.80, N = 3
13396201
Core i7 990X
SE +/- 132601.70, N = 3
13338369
Core i5 8500T
SE +/- 118670.12, N = 3
10748746
AMD FX-8350
SE +/- 16238.24, N = 3
10229160
Core i5 7600K
SE +/- 6143.92, N = 3
9418962
Willow6C
SE +/- 55625.19, N = 3
8611939
Ryzen 3 5300U 16GB
SE +/- 45808.65, N = 3
8333287
Ryzen 3 5300U 8GB
SE +/- 28392.34, N = 3
8184176
Core i5 8265U
SE +/- 69938.47, N = 3
7592269
i5 6500 10GB RAM
SE +/- 107454.96, N = 3
7587616
Core i7 870
SE +/- 121724.18, N = 3
7494699
i5 6500 8GB RAM
SE +/- 67131.47, N = 3
7478247
Core i5 8250U
SE +/- 24212.11, N = 3
6937063
Core i5 7500T
SE +/- 17604.74, N = 3
6897217
Core i7 8665U
SE +/- 29218.22, N = 3
6462193
AMD A10-7870K
SE +/- 22419.28, N = 3
5793041
Core i5 2400S
SE +/- 28739.22, N = 3
5450590
AMD A10-7800
SE +/- 52988.21, N = 3
5147353
Core i3 8130U
SE +/- 26164.81, N = 3
4388325
i5 3470T 10GB
SE +/- 10343.68, N = 3
4135071
LenovoM700Tiny
SE +/- 8184.83, N = 3
3973324
Core i3 2100
SE +/- 25728.51, N = 3
3959009
Core i5 3470T
SE +/- 14426.76, N = 3
3793239
Pentium G3258
SE +/- 13556.97, N = 3
3556304
MacMini2011-2415M
SE +/- 11287.16, N = 3
3405948
Core i3 7100U
SE +/- 27651.08, N = 3
3344542
AMD Athlon II X3 425
SE +/- 27900.30, N = 3
3340855
i5 3470T 8GB RAM
3202361

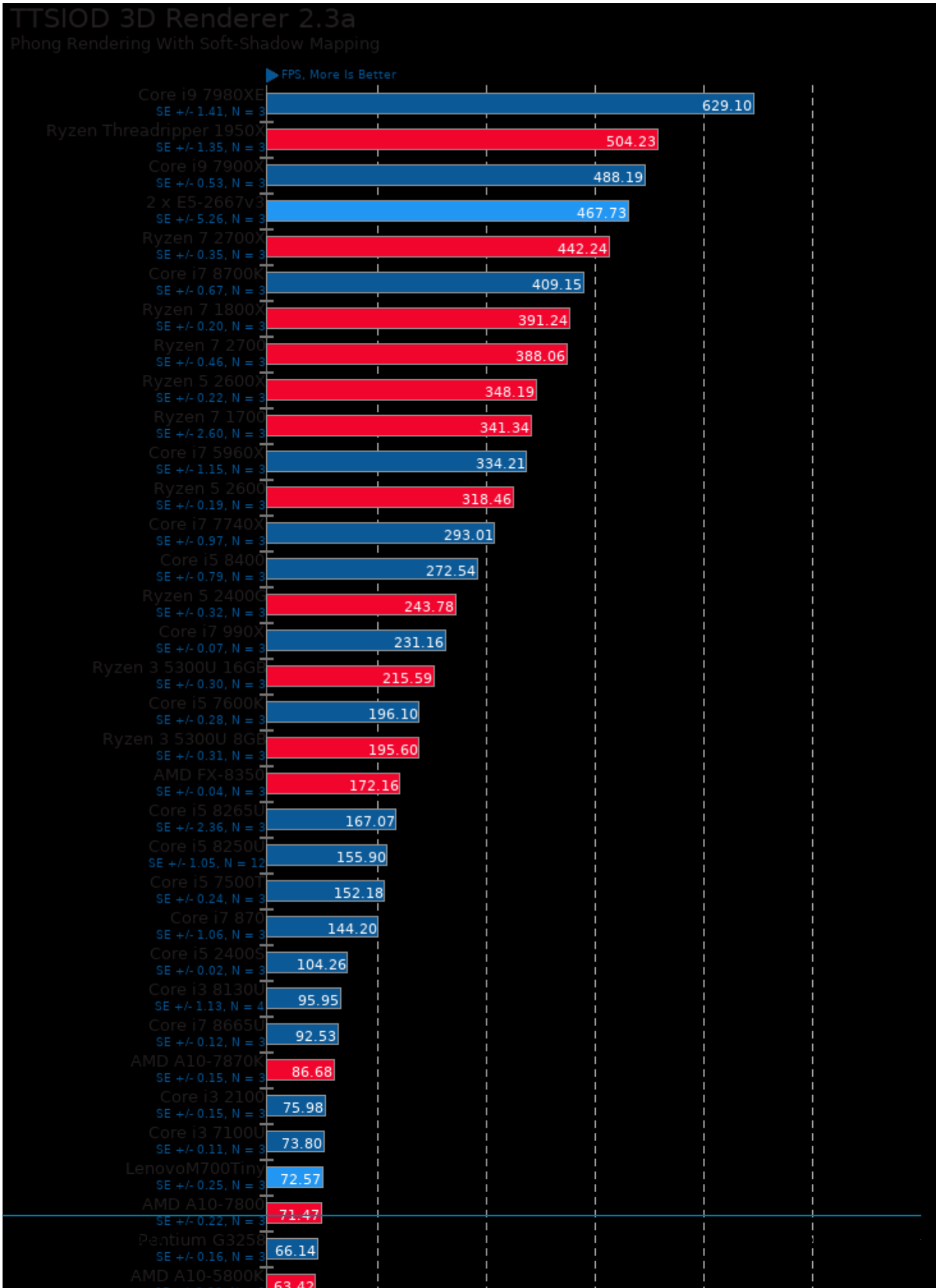

Fhourstones 3.1
Complex Connect-4 Solving
Kpos / sec, More Is Better
Core i7 8700K
SE +/- 41.51, N = 3
16130.0
Core i7 7740X
SE +/- 6.41, N = 3
15092.0
Core i9 7980XE
SE +/- 9.20, N = 3
14701.0
Core i9 7900X
SE +/- 10.54, N = 3
14408.0
Core i5 8400
SE +/- 69.18, N = 3
14366.0
Ryzen 7 2700X
SE +/- 42.90, N = 3
14053.0
Ryzen 5 2600X
SE +/- 26.09, N = 3
13836.0
Core i5 7600K
SE +/- 7.35, N = 3
13619.0
Ryzen 7 2700
SE +/- 12.66, N = 3
13342.0
Ryzen 5 2600
SE +/- 18.25, N = 3
13083.0
Ryzen 7 1800X
SE +/- 28.37, N = 3
13051.0
Ryzen 5 2400G
SE +/- 40.59, N = 3
12793.0
Core i7 5960X
SE +/- 11.90, N = 3
12068.0
Ryzen Threadripper 1950X
SE +/- 44.50, N = 3
11926.0
i5 6500 10GB RAM
SE +/- 7.42, N = 3
11862.0
Ryzen 7 1700
SE +/- 13.71, N = 3
11796.0
i5 6500 8GB RAM
SE +/- 12.27, N = 3
11728.0
Core i5 8500T
SE +/- 16.63, N = 3
11695.0
Core i7 8665U
SE +/- 23.32, N = 3
11558.6
Core i5 8265U
SE +/- 13.62, N = 3
11353.4
Ryzen 3 5300U 16GB
SE +/- 9.08, N = 3
11184.2
Ryzen 3 5300U 8GB
SE +/- 5.07, N = 3
10994.1
Core i5 7500T
SE +/- 10.19, N = 3
10717.5
i5 3470T 10GB
SE +/- 8.45, N = 3
10633.0
Core i5 3470T
SE +/- 28.07, N = 3
10410.0
Core i3 8130U
SE +/- 79.21, N = 3
10312.4
Core i5 2400S
SE +/- 13.95, N = 3
10274.0
2 x E5-2667v3
SE +/- 31.75, N = 3
10261.0
AMD FX-8350
SE +/- 8.24, N = 3
10245.0
Core i5 8250U
SE +/- 9.06, N = 3
10241.9
i5 3470T 8GB RAM
SE +/- 19.93, N = 3
9868.0
Pentium G3258
SE +/- 2.74, N = 3
9839.0
Willow16C
SE +/- 16.16, N = 3
9768.0
Core i7 990X
9621.0

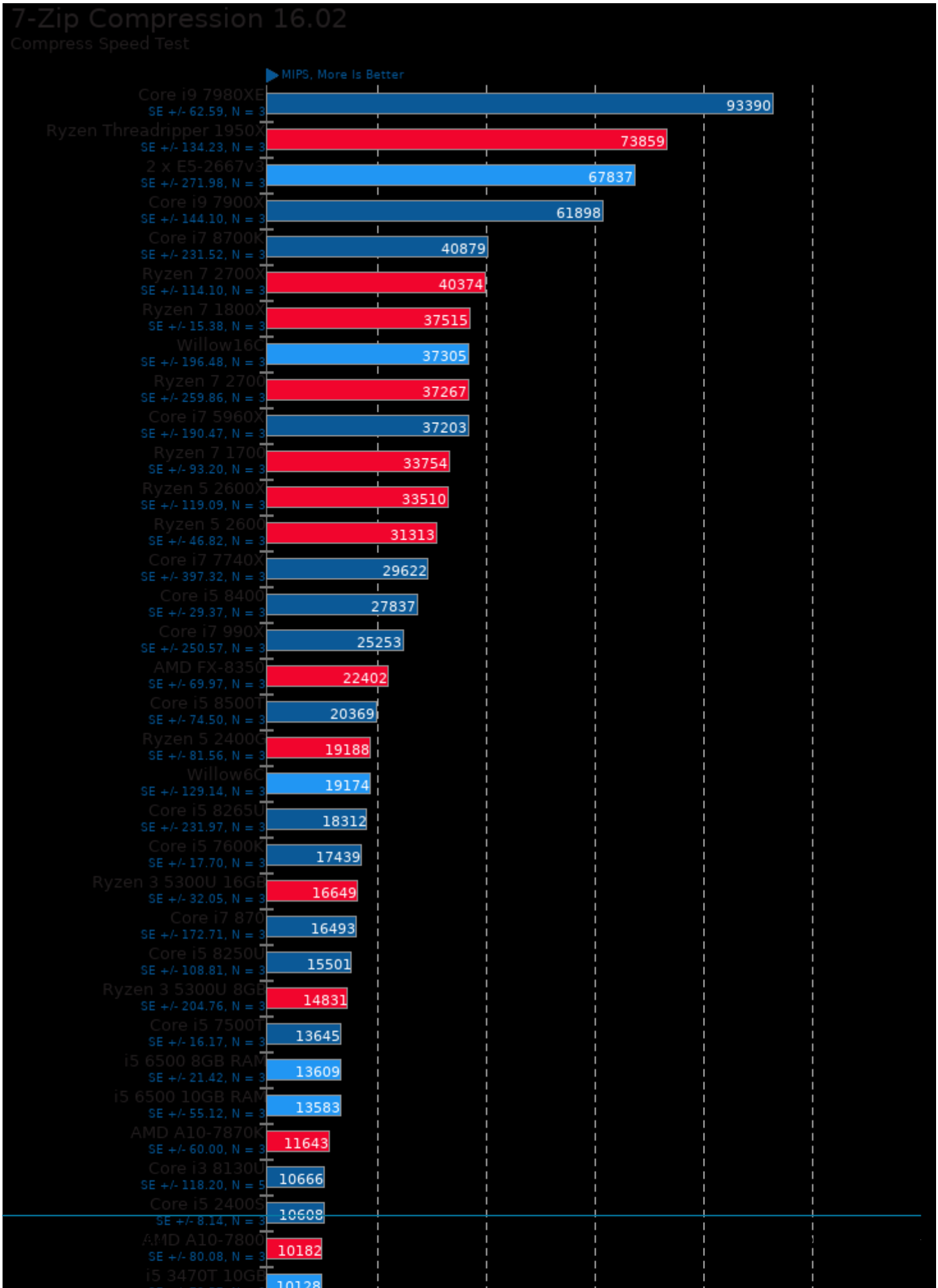

Tinymembench 2018-05-28
- Standard Memset
MB/s, More Is Better
Core i5 8265U
32063.2
Core i7 8665U
28573.8
Core i5 7500T
27794.5
Core i5 3470T
24866.0
Core i5 8250U
22673.6
Core i3 8130U
21314.9
Core i5 8500T
19216.0
Core i3 7100U
16261.0
i5 6500 10GB RAM
15846.0
i5 6500 8GB RAM
15796.0
LenovoM700Tiny
14481.6
i5 3470T 10GB
12376.0
i5 3470T 8GB RAM
12243.0
Ryzen 3 5300U 16GB
9255.8
Lenovo Duet Helio P60T
8849.2
Willow6C
7387.0
Willow16C
7332.0
2 x E5-2667v3
5865.0
Ryzen 3 5300U 8GB
5439.6
Acer CB 315 - A4 9120C
2509.8
7K
14K
21K
28K
35K
1. (CC) gcc options: -O2 -lm

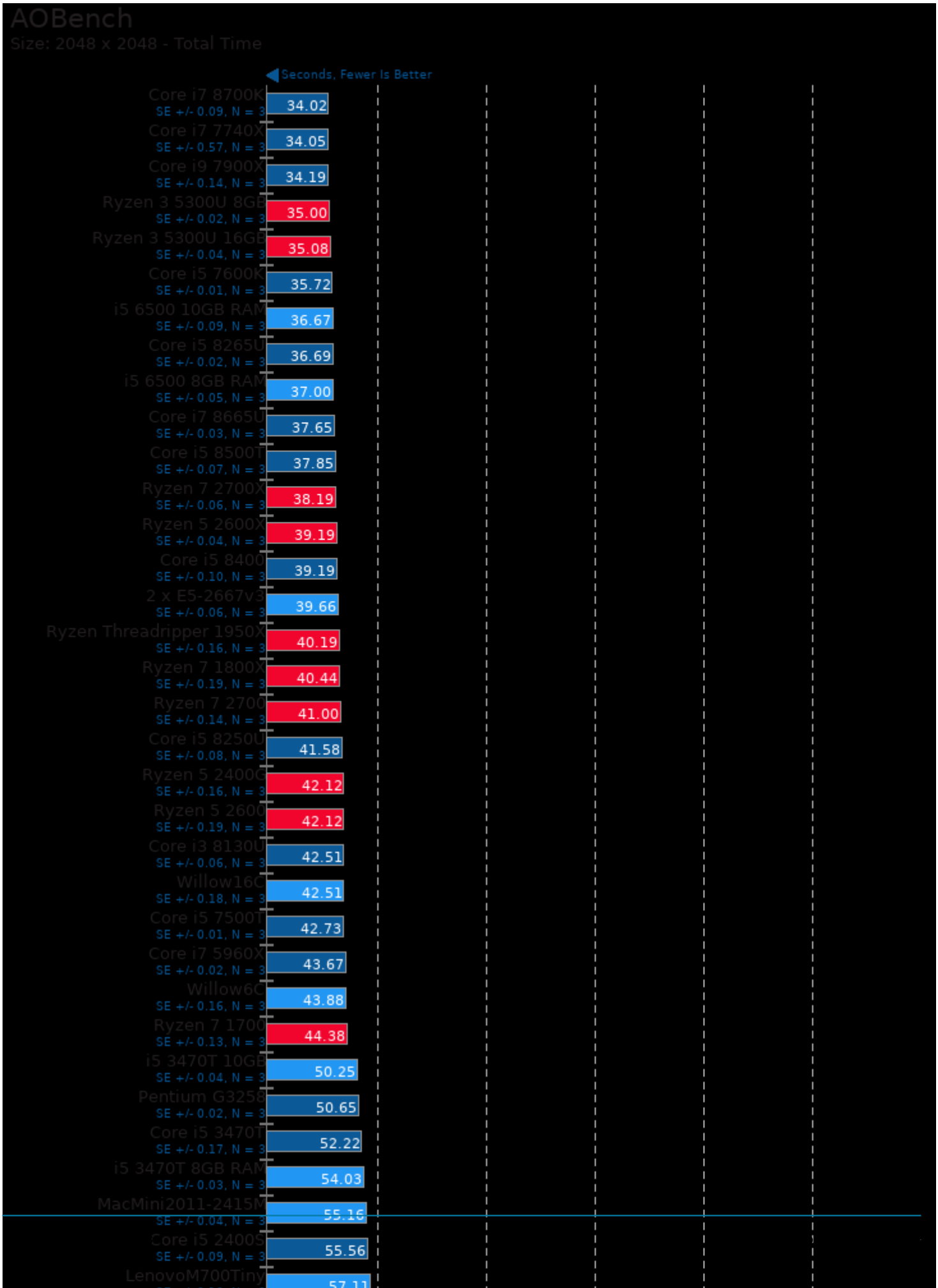

Rodinia 2.4
Test: OpenMP CFD Solver
Seconds, Fewer Is Better
Core i9 7980XE
SE +/- 0.02, N = 3
11.93
Ryzen Threadripper 1950X
SE +/- 0.02, N = 3
13.34
Core i9 7900X
SE +/- 0.03, N = 3
18.23
2 x E5-2667v3
SE +/- 0.21, N = 15
23.65
Ryzen 7 2700X
SE +/- 0.07, N = 3
27.22
Ryzen 7 1800X
SE +/- 0.08, N = 3
28.52
Core i7 8700K
SE +/- 0.02, N = 3
29.04
Ryzen 7 2700
SE +/- 0.08, N = 3
29.28
Ryzen 5 2600X
SE +/- 0.05, N = 3
31.17
Ryzen 5 2600
SE +/- 0.04, N = 3
32.70
Core i7 5960X
SE +/- 0.02, N = 3
33.82
Ryzen 7 1700
SE +/- 1.03, N = 3
34.92
Core i5 8400
SE +/- 0.02, N = 3
35.98
Core i7 7740X
SE +/- 0.03, N = 3
39.02
Ryzen 5 2400G
SE +/- 0.14, N = 3
45.91
Willow16C
SE +/- 0.46, N = 3
50.33
Core i5 8500T
SE +/- 0.78, N = 3
53.72
Core i5 7600K
SE +/- 0.04, N = 3
59.91
Core i5 8265U
SE +/- 0.22, N = 3
60.19
Willow6C
SE +/- 1.23, N = 3
62.35
Ryzen 3 5300U 16GB
SE +/- 0.58, N = 7
62.83
Core i7 990X
SE +/- 0.13, N = 3
63.64
i5 6500 10GB RAM
SE +/- 0.15, N = 3
69.98
AMD FX-8350
SE +/- 0.10, N = 3
70.46
i5 6500 8GB RAM
SE +/- 0.05, N = 3
70.64
Core i5 8250U
SE +/- 0.13, N = 3
71.65
Core i5 7500T
SE +/- 0.04, N = 3
72.68
Core i7 870
SE +/- 0.30, N = 3
91.46
Ryzen 3 5300U 8GB
SE +/- 0.24, N = 3
98.16
Core i3 8130U
SE +/- 0.18, N = 3
102.34
Core i5 2400S
SE +/- 0.14, N = 3
114.38
Core i7 8665U
SE +/- 0.65, N = 3
117.23
AMD A10-7870K
SE +/- 0.12, N = 3
119.94
AMD A10-5800K
130.06

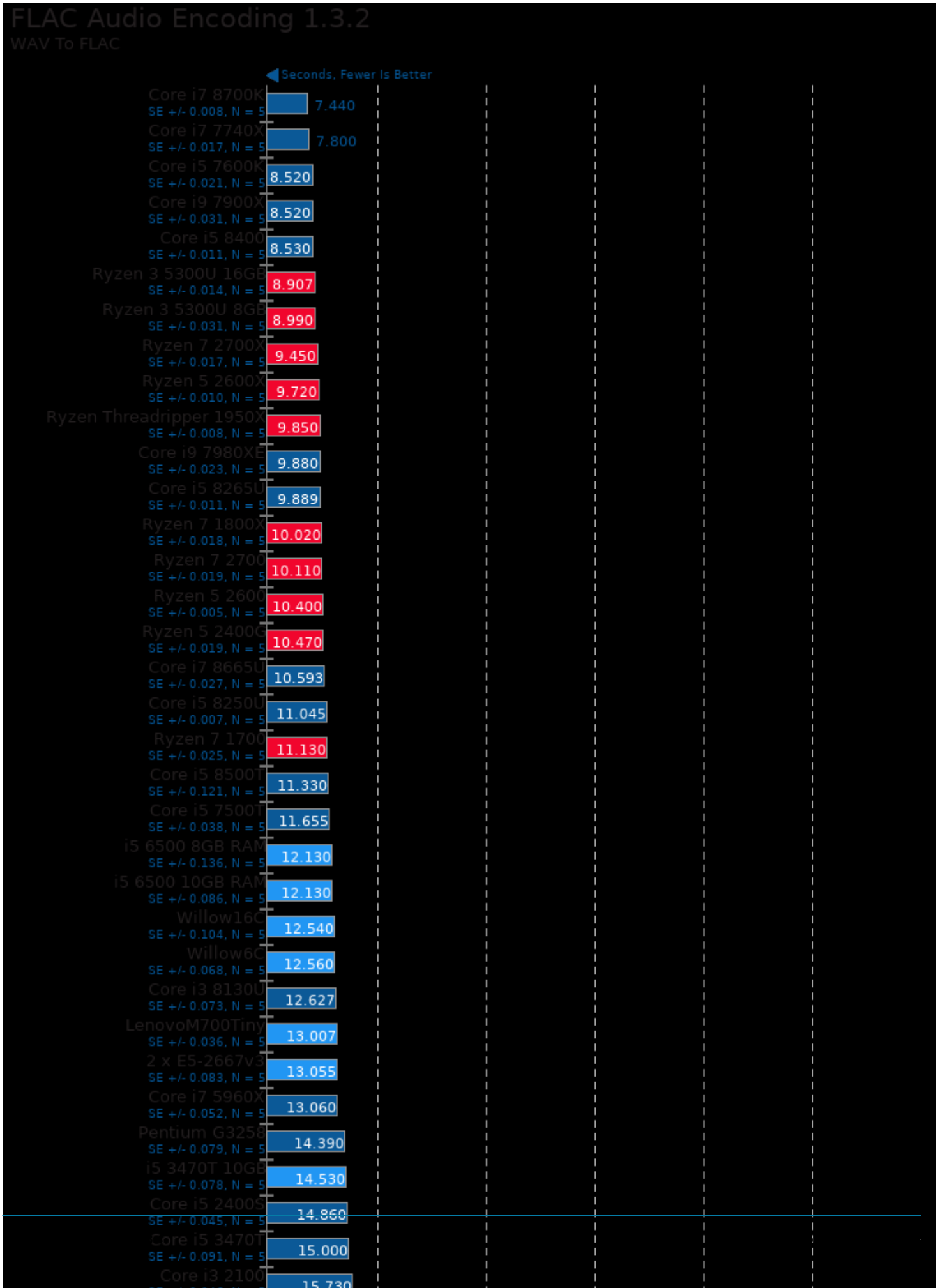

Tinymembench 2018-05-28
- Standard Memcpy
MB/s, More Is Better
Core i7 7740X
17193.0
Ryzen Threadripper 1950X
15595.0
Core i5 8265U
13534.9
Core i5 7500T
13186.7
Core i7 8665U
12162.9
Core i7 5960X
11653.0
Core i9 7900X
10519.0
Core i9 7980XE
9959.0
Core i5 8250U
9594.9
Core i3 8130U
9466.5
Willow16C
9248.0
Core i5 3470T
9133.0
Core i5 2400S
8976.0
Core i5 8500T
8074.0
Willow6C
8041.0
Core i5 7600K
7502.0
Pentium G3258
7492.0
Core i7 990X
7385.0
Core i3 2100
7242.0
Core i3 7100U
7182.5
Core i7 870
6906.0
i5 6500 10GB RAM
6848.0
Ryzen 3 5300U 16GB
6713.1
i5 6500 8GB RAM
6666.0
LenovoM700Tiny
6611.5
AMD A10-7870K
5801.0
AMD FX-8350
5728.0
AMD A10-5800K
5725.0
i5 3470T 8GB RAM
5655.0
i5 3470T 10GB
5642.0
AMD A10-7800
5057.0
AMD A6-7400K
4973.0
AMD Athlon II X3 425
4433.0
2 x E5-2667v3
4355.0

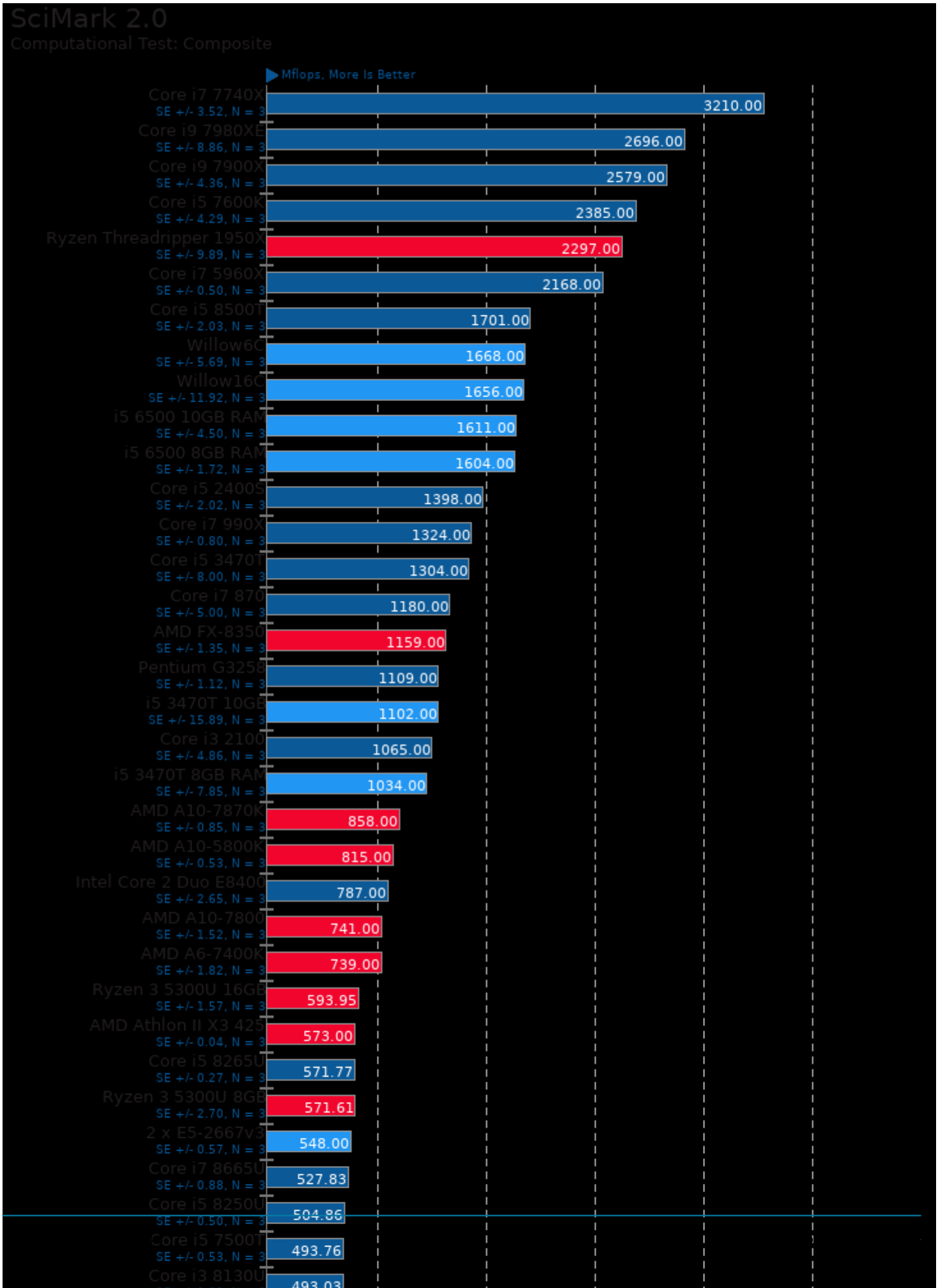

Tinymembench 2018-05-28
- Standard Memcpy - Standard Memset
MB/s, More Is Better
Core i7 7740X
38987.50
Core i9 7900X
25659.80
Pentium G3258
18972.00
Core i5 7600K
17735.90
Core i7 5960X
16013.30
Ryzen Threadripper 1950X
12467.00
Core i5 2400S
9309.40
Core i7 990X
8006.00
Core i7 870
7611.00
Core i3 2100
7417.80
AMD A10-7870K
6616.10
AMD FX-8350
6611.80
AMD A6-7400K
5579.10
AMD A10-7800
5491.10
AMD A10-5800K
5373.50
AMD Athlon II X3 425
4451.00
Intel Core 2 Duo E8400
2780.60
AMD E-350
2041.10
8K
16K
24K
32K
40K
1. (CC) gcc options: -O2 -O3 -march=native -lm

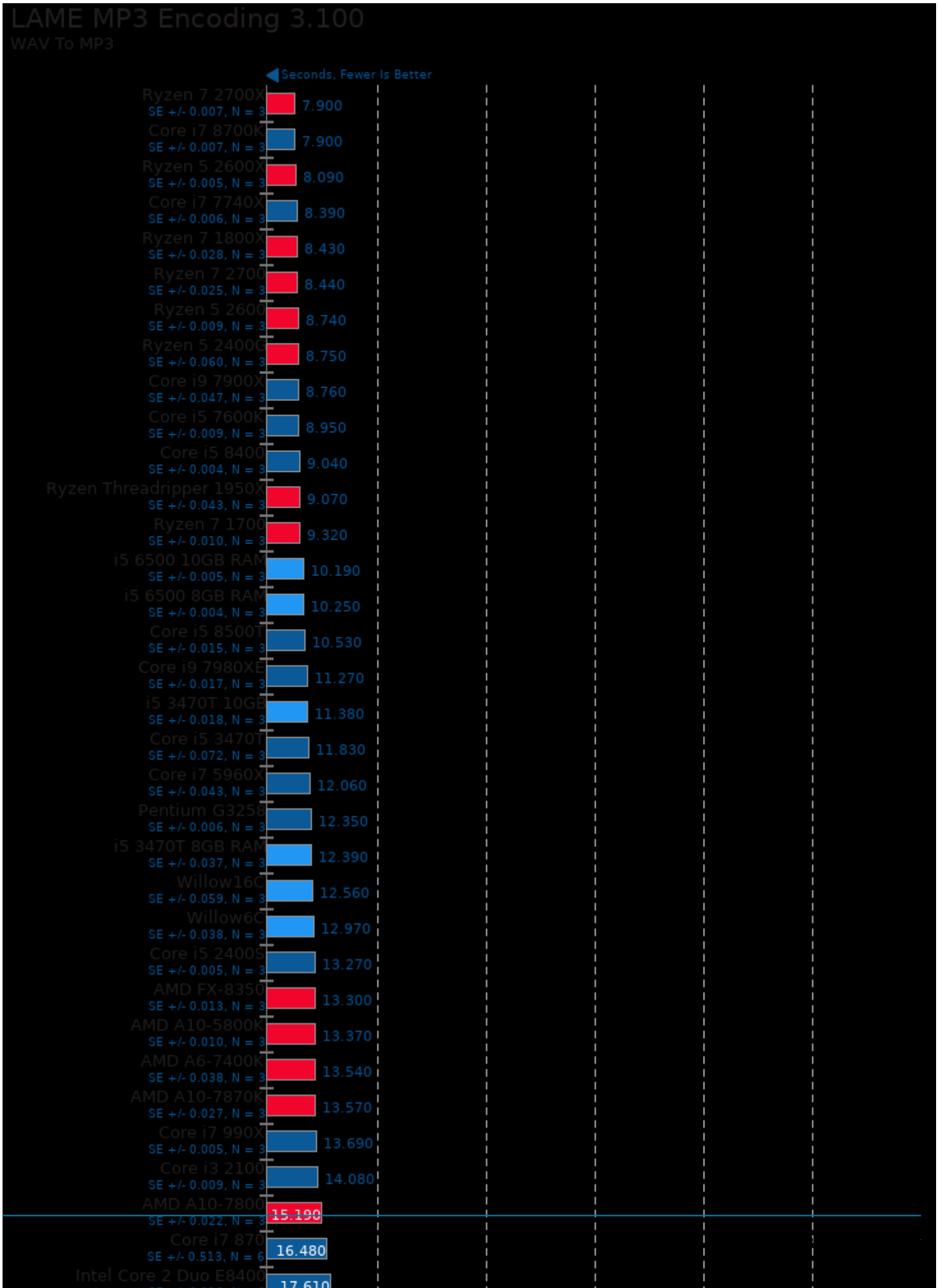

TTSIOD 3D Renderer 2.3a
Phong Rendering With Soft-Shadow Mapping
FPS, More Is Better
Core i9 7980XE
SE +/- 1.41, N = 3
629.10
Ryzen Threadripper 1950X
SE +/- 1.35, N = 3
504.23
Core i9 7900X
SE +/- 0.53, N = 3
488.19
2 x E5-2667v3
SE +/- 5.26, N = 3
467.73
Ryzen 7 2700X
SE +/- 0.35, N = 3
442.24
Core i7 8700K
SE +/- 0.67, N = 3
409.15
Ryzen 7 1800X
SE +/- 0.20, N = 3
391.24
Ryzen 7 2700
SE +/- 0.46, N = 3
388.06
Ryzen 5 2600X
SE +/- 0.22, N = 3
348.19
Ryzen 7 1700
SE +/- 2.60, N = 3
341.34
Core i7 5960X
SE +/- 1.15, N = 3
334.21
Ryzen 5 2600
SE +/- 0.19, N = 3
318.46
Core i7 7740X
SE +/- 0.97, N = 3
293.01
Core i5 8400
SE +/- 0.79, N = 3
272.54
Ryzen 5 2400G
SE +/- 0.32, N = 3
243.78
Core i7 990X
SE +/- 0.07, N = 3
231.16
Ryzen 3 5300U 16GB
SE +/- 0.30, N = 3
215.59
Core i5 7600K
SE +/- 0.28, N = 3
196.10
Ryzen 3 5300U 8GB
SE +/- 0.31, N = 3
195.60
AMD FX-8350
SE +/- 0.04, N = 3
172.16
Core i5 8265U
SE +/- 2.36, N = 3
167.07
Core i5 8250U
SE +/- 1.05, N = 12
155.90
Core i5 7500T
SE +/- 0.24, N = 3
152.18
Core i7 870
SE +/- 1.06, N = 3
144.20
Core i5 2400S
SE +/- 0.02, N = 3
104.26
Core i3 8130U
SE +/- 1.13, N = 4
95.95
Core i7 8665U
SE +/- 0.12, N = 3
92.53
AMD A10-7870K
SE +/- 0.15, N = 3
86.68
Core i3 2100
SE +/- 0.15, N = 3
75.98
Core i3 7100U
SE +/- 0.11, N = 3
73.80
LenovoM700Tiny
SE +/- 0.25, N = 3
72.57
AMD A10-7800
SE +/- 0.22, N = 3
71.47
Pentium G3258
SE +/- 0.16, N = 3
66.14
AMD A10-5800K
63.42

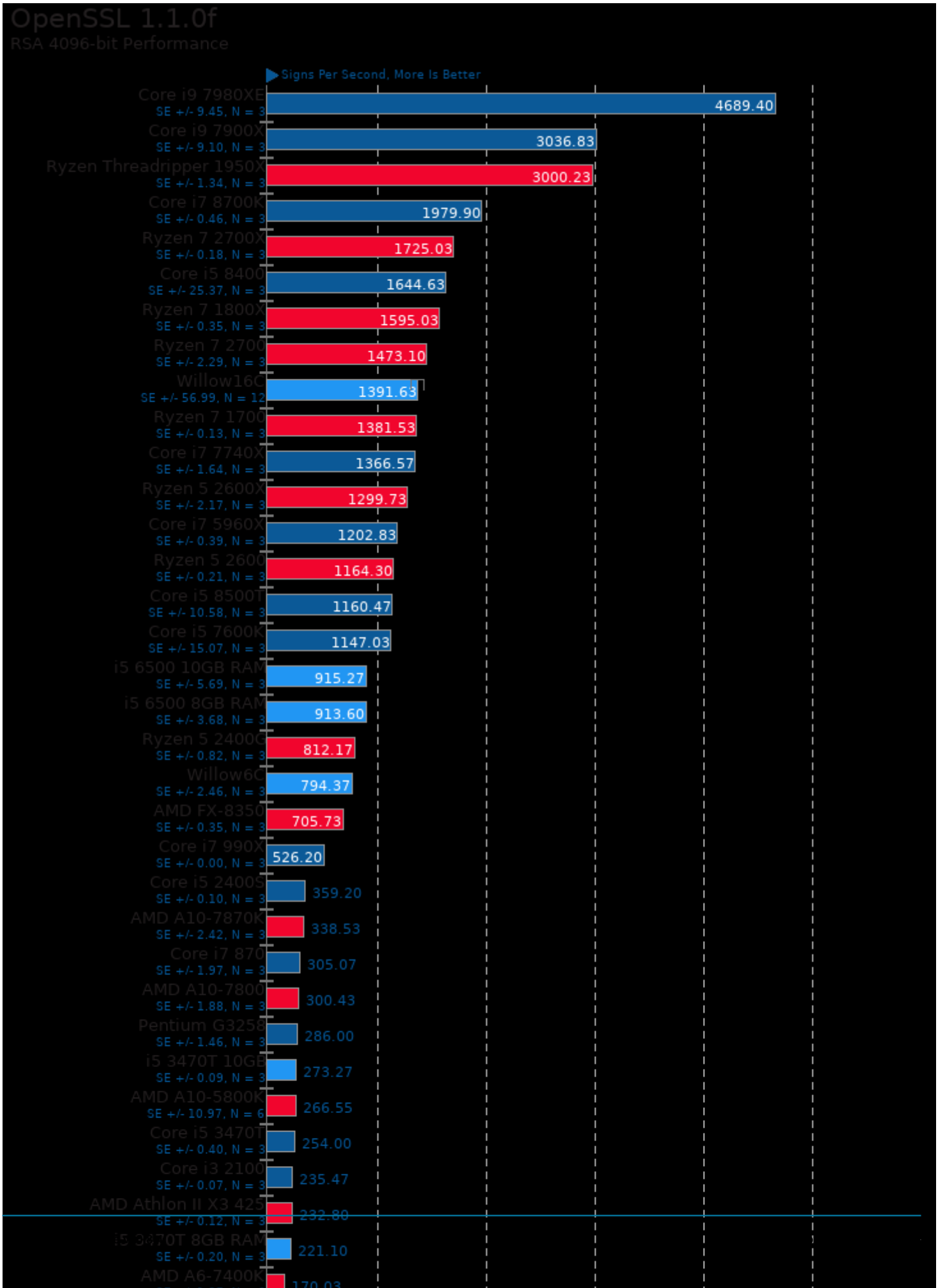

7-Zip Compression 16.02
Compress Speed Test
MIPS, More Is Better
Core i9 7980XE
SE +/- 62.59, N = 3
93390
Ryzen Threadripper 1950X
SE +/- 134.23, N = 3
73859
2 x E5-2667v3
SE +/- 271.98, N = 3
67837
Core i9 7900X
SE +/- 144.10, N = 3
61898
Core i7 8700K
SE +/- 231.52, N = 3
40879
Ryzen 7 2700X
SE +/- 114.10, N = 3
40374
Ryzen 7 1800X
SE +/- 15.38, N = 3
37515
Willow16C
SE +/- 196.48, N = 3
37305
Ryzen 7 2700
SE +/- 259.86, N = 3
37267
Core i7 5960X
SE +/- 190.47, N = 3
37203
Ryzen 7 1700
SE +/- 93.20, N = 3
33754
Ryzen 5 2600X
SE +/- 119.09, N = 3
33510
Ryzen 5 2600
SE +/- 46.82, N = 3
31313
Core i7 7740X
SE +/- 397.32, N = 3
29622
Core i5 8400
SE +/- 29.37, N = 3
27837
Core i7 990X
SE +/- 250.57, N = 3
25253
AMD FX-8350
SE +/- 69.97, N = 3
22402
Core i5 8500T
SE +/- 74.50, N = 3
20369
Ryzen 5 2400G
SE +/- 81.56, N = 3
19188
Willow6C
SE +/- 129.14, N = 3
19174
Core i5 8265U
SE +/- 231.97, N = 3
18312
Core i5 7600K
SE +/- 17.70, N = 3
17439
Ryzen 3 5300U 16GB
SE +/- 32.05, N = 3
16649
Core i7 870
SE +/- 172.71, N = 3
16493
Core i5 8250U
SE +/- 108.81, N = 3
15501
Ryzen 3 5300U 8GB
SE +/- 204.76, N = 3
14831
Core i5 7500T
SE +/- 16.17, N = 3
13645
i5 6500 8GB RAM
SE +/- 21.42, N = 3
13609
i5 6500 10GB RAM
SE +/- 55.12, N = 3
13583
AMD A10-7870K
SE +/- 60.00, N = 3
11643
Core i3 8130U
SE +/- 118.20, N = 5
10666
Core i5 2400S
SE +/- 8.14, N = 3
10608
AMD A10-7800
SE +/- 80.08, N = 3
10182
i5 3470T 10GB
10128

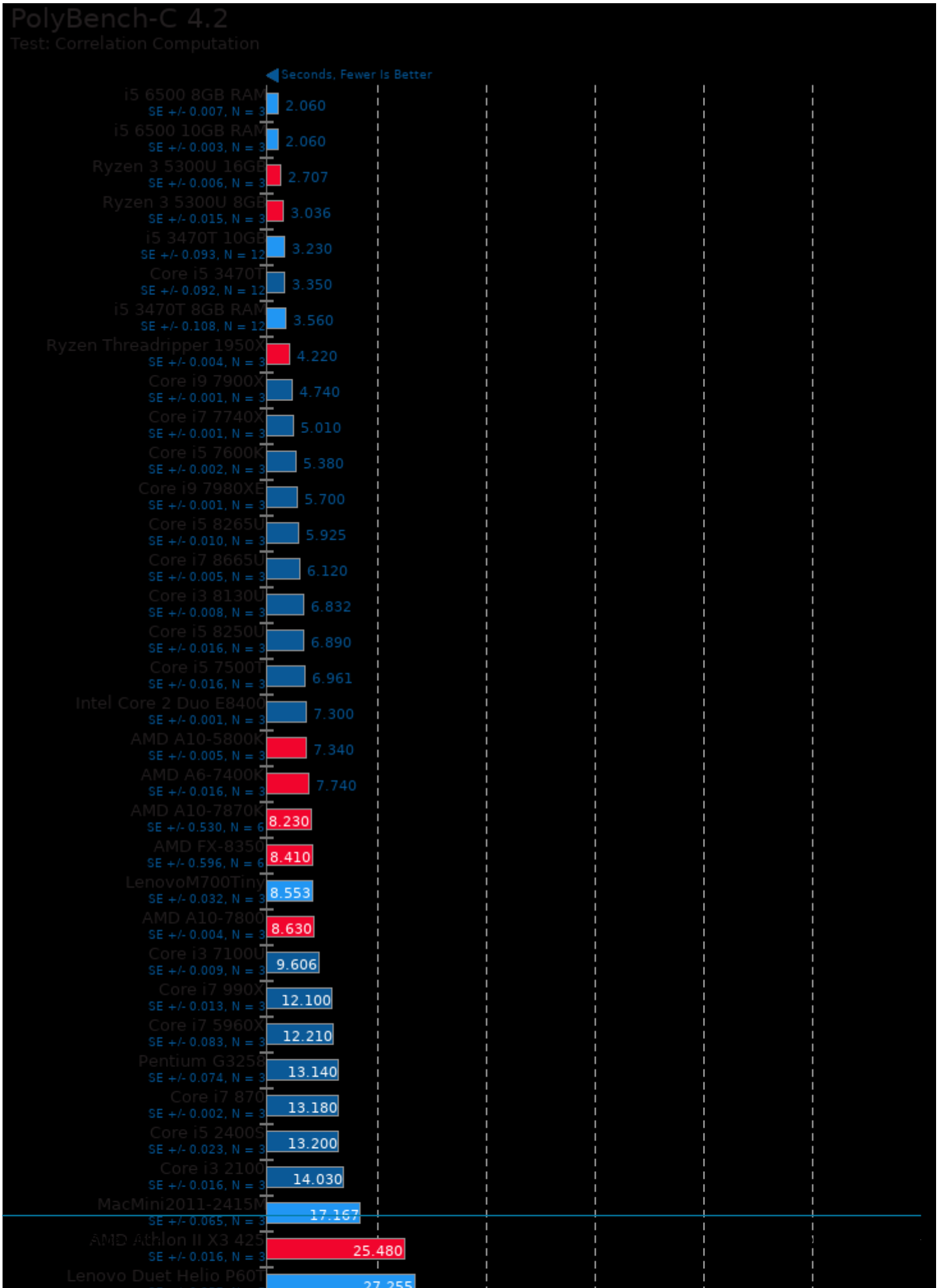

AOBench
Size: 2048 x 2048 - Total Time
Seconds, Fewer Is Better
Core i7 8700K
SE +/- 0.09, N = 3
34.02
Core i7 7740X
SE +/- 0.57, N = 3
34.05
Core i9 7900X
SE +/- 0.14, N = 3
34.19
Ryzen 3 5300U 8GB
SE +/- 0.02, N = 3
35.00
Ryzen 3 5300U 16GB
SE +/- 0.04, N = 3
35.08
Core i5 7600K
SE +/- 0.01, N = 3
35.72
i5 6500 10GB RAM
SE +/- 0.09, N = 3
36.67
Core i5 8265U
SE +/- 0.02, N = 3
36.69
i5 6500 8GB RAM
SE +/- 0.05, N = 3
37.00
Core i7 8665U
SE +/- 0.03, N = 3
37.65
Core i5 8500T
SE +/- 0.07, N = 3
37.85
Ryzen 7 2700X
SE +/- 0.06, N = 3
38.19
Ryzen 5 2600X
SE +/- 0.04, N = 3
39.19
Core i5 8400
SE +/- 0.10, N = 3
39.19
2 x E5-2667v3
SE +/- 0.06, N = 3
39.66
Ryzen Threadripper 1950X
SE +/- 0.16, N = 3
40.19
Ryzen 7 1800X
SE +/- 0.19, N = 3
40.44
Ryzen 7 2700
SE +/- 0.14, N = 3
41.00
Core i5 8250U
SE +/- 0.08, N = 3
41.58
Ryzen 5 2400G
SE +/- 0.16, N = 3
42.12
Ryzen 5 2600
SE +/- 0.19, N = 3
42.12
Core i3 8130U
SE +/- 0.06, N = 3
42.51
Willow16C
SE +/- 0.18, N = 3
42.51
Core i5 7500T
SE +/- 0.01, N = 3
42.73
Core i7 5960X
SE +/- 0.02, N = 3
43.67
Willow6C
SE +/- 0.16, N = 3
43.88
Ryzen 7 1700
SE +/- 0.13, N = 3
44.38
i5 3470T 10GB
SE +/- 0.04, N = 3
50.25
Pentium G3258
SE +/- 0.02, N = 3
50.65
Core i5 3470T
SE +/- 0.17, N = 3
52.22
i5 3470T 8GB RAM
SE +/- 0.03, N = 3
54.03
MacMini2011-2415M
SE +/- 0.04, N = 3
55.16
Core i5 2400S
SE +/- 0.09, N = 3
55.56
LenovoM700Tiny
57.11

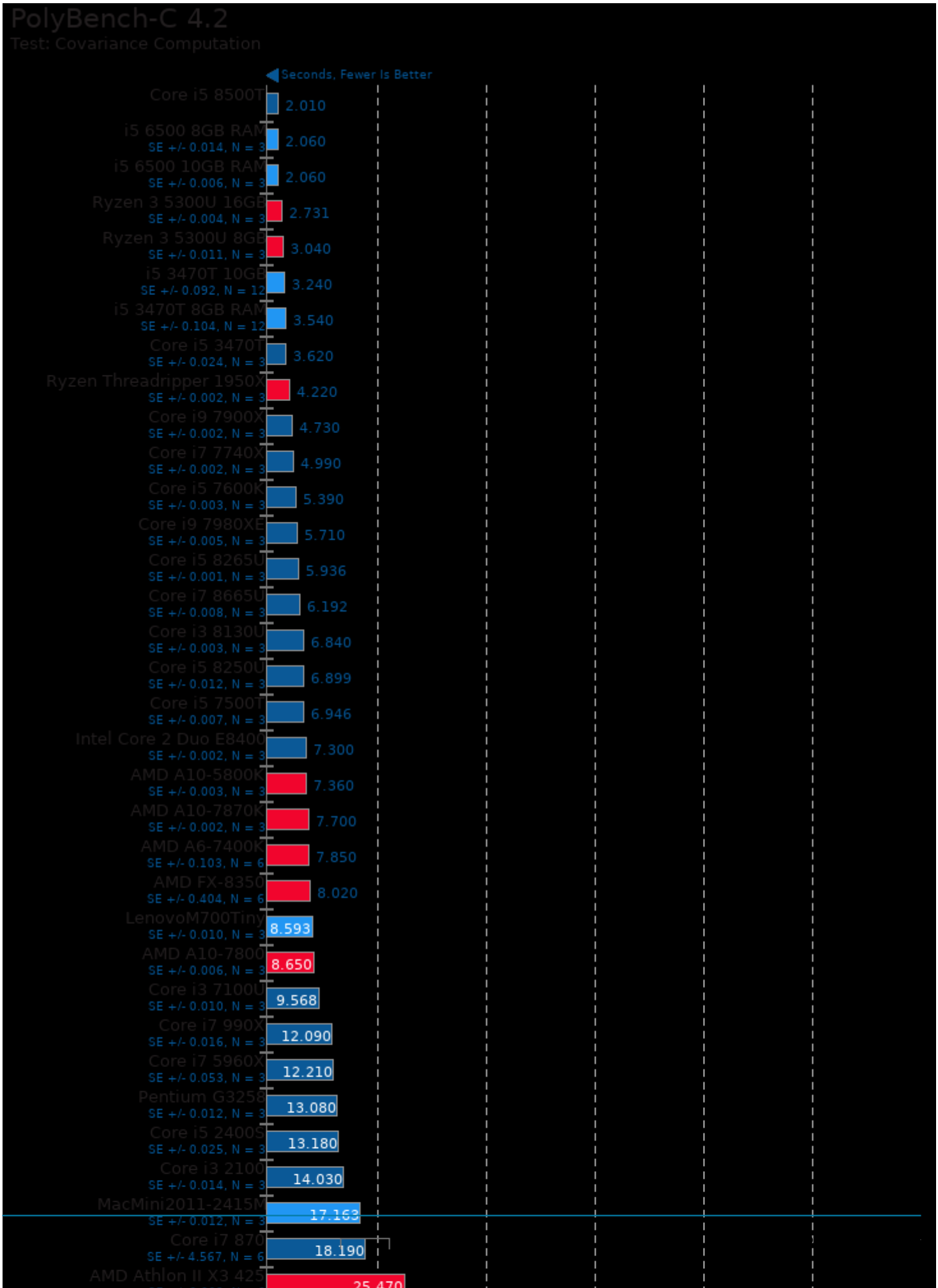

FLAC Audio Encoding 1.3.2
WAV To FLAC
Seconds, Fewer Is Better
Core i7 8700K
SE +/- 0.008, N = 5
7.440
Core i7 7740X
SE +/- 0.017, N = 5
7.800
Core i5 7600K
SE +/- 0.021, N = 5
8.520
Core i9 7900X
SE +/- 0.031, N = 5
8.520
Core i5 8400
SE +/- 0.011, N = 5
8.530
Ryzen 3 5300U 16GB
SE +/- 0.014, N = 5
8.907
Ryzen 3 5300U 8GB
SE +/- 0.031, N = 5
8.990
Ryzen 7 2700X
SE +/- 0.017, N = 5
9.450
Ryzen 5 2600X
SE +/- 0.010, N = 5
9.720
Ryzen Threadripper 1950X
SE +/- 0.008, N = 5
9.850
Core i9 7980XE
SE +/- 0.023, N = 5
9.880
Core i5 8265U
SE +/- 0.011, N = 5
9.889
Ryzen 7 1800X
SE +/- 0.018, N = 5
10.020
Ryzen 7 2700
SE +/- 0.019, N = 5
10.110
Ryzen 5 2600
SE +/- 0.005, N = 5
10.400
Ryzen 5 2400G
SE +/- 0.019, N = 5
10.470
Core i7 8665U
SE +/- 0.027, N = 5
10.593
Core i5 8250U
SE +/- 0.007, N = 5
11.045
Ryzen 7 1700
SE +/- 0.025, N = 5
11.130
Core i5 8500T
SE +/- 0.121, N = 5
11.330
Core i5 7500T
SE +/- 0.038, N = 5
11.655
i5 6500 8GB RAM
SE +/- 0.136, N = 5
12.130
i5 6500 10GB RAM
SE +/- 0.086, N = 5
12.130
Willow16G
SE +/- 0.104, N = 5
12.540
Willow6G
SE +/- 0.068, N = 5
12.560
Core i3 8130U
SE +/- 0.073, N = 5
12.627
LenovoM700Tiny
SE +/- 0.036, N = 5
13.007
2 x E5-2667v3
SE +/- 0.083, N = 5
13.055
Core i7 5960X
SE +/- 0.052, N = 5
13.060
Pentium G3258
SE +/- 0.079, N = 5
14.390
i5 3470T 10GB
SE +/- 0.078, N = 5
14.530
Core i5 2400S
SE +/- 0.045, N = 5
14.860
Core i5 3470T
SE +/- 0.091, N = 5
15.000
Core i3 2100
15.730

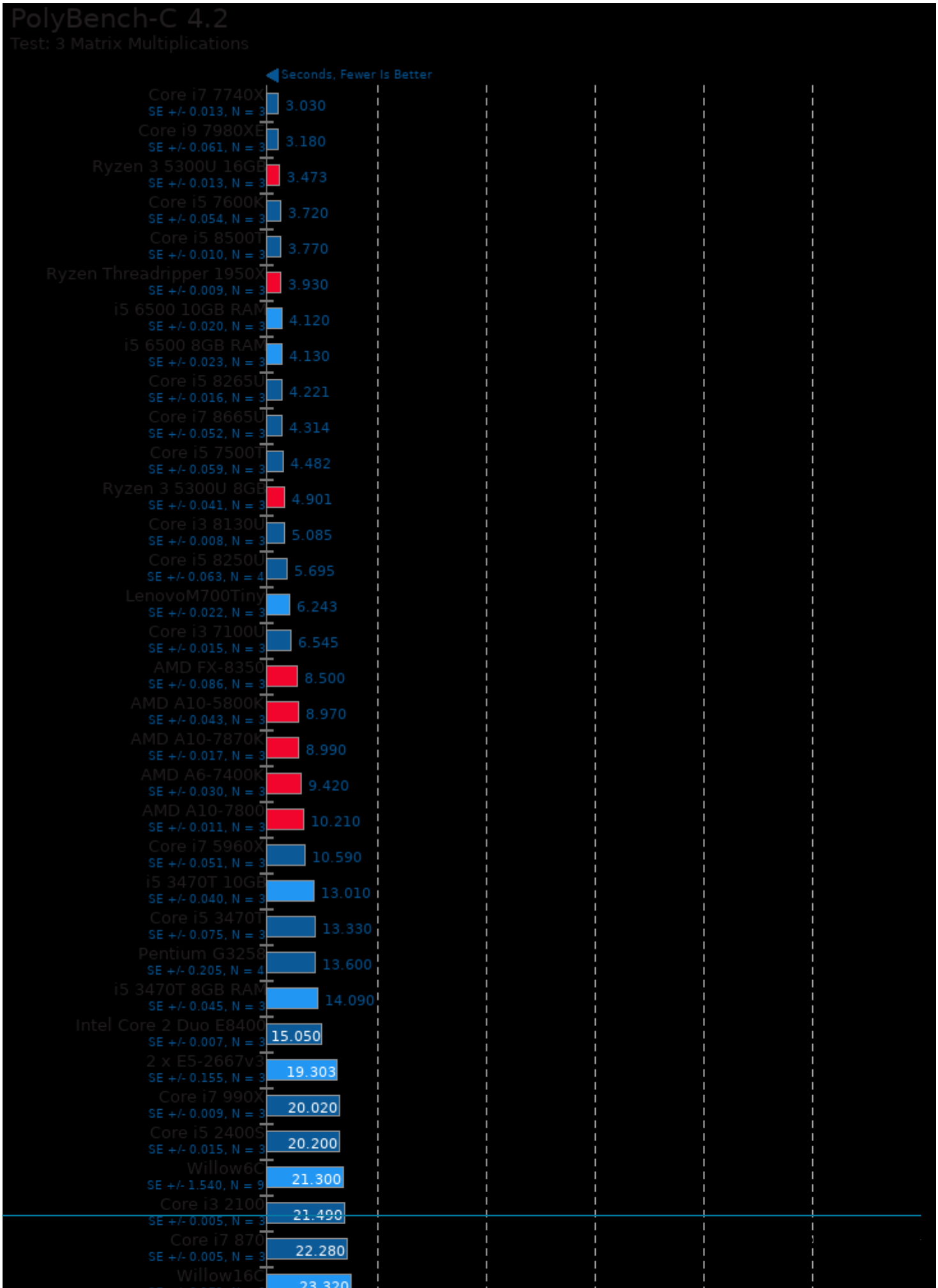

SciMark 2.0
Computational Test: Composite
Mflops, More Is Better
Core i7 7740X
SE +/- 3.52, N = 3
3210.00
Core i9 7980XE
SE +/- 8.86, N = 3
2696.00
Core i9 7900X
SE +/- 4.36, N = 3
2579.00
Core i5 7600K
SE +/- 4.29, N = 3
2385.00
Ryzen Threadripper 1950X
SE +/- 9.89, N = 3
2297.00
Core i7 5960X
SE +/- 0.50, N = 3
2168.00
Core i5 8500T
SE +/- 2.03, N = 3
1701.00
Willow6C
SE +/- 5.69, N = 3
1668.00
Willow16C
SE +/- 11.92, N = 3
1656.00
i5 6500 10GB RAM
SE +/- 4.50, N = 3
1611.00
i5 6500 8GB RAM
SE +/- 1.72, N = 3
1604.00
Core i5 2400S
SE +/- 2.02, N = 3
1398.00
Core i7 990X
SE +/- 0.80, N = 3
1324.00
Core i5 3470T
SE +/- 8.00, N = 3
1304.00
Core i7 870
SE +/- 5.00, N = 3
1180.00
AMD FX-8350
SE +/- 1.35, N = 3
1159.00
Pentium G3258
SE +/- 1.12, N = 3
1109.00
i5 3470T 10GB
SE +/- 15.89, N = 3
1102.00
Core i3 2100
SE +/- 4.86, N = 3
1065.00
i5 3470T 8GB RAM
SE +/- 7.85, N = 3
1034.00
AMD A10-7870K
SE +/- 0.85, N = 3
858.00
AMD A10-5800K
SE +/- 0.53, N = 3
815.00
Intel Core 2 Duo E8400
SE +/- 2.65, N = 3
787.00
AMD A10-7800
SE +/- 1.52, N = 3
741.00
AMD A6-7400K
SE +/- 1.82, N = 3
739.00
Ryzen 3 5300U 16GB
SE +/- 1.57, N = 3
593.95
AMD Athlon II X3 425
SE +/- 0.04, N = 3
573.00
Core i5 8265U
SE +/- 0.27, N = 3
571.77
Ryzen 3 5300U 8GB
SE +/- 2.70, N = 3
571.61
2 x E5-2667v3
SE +/- 0.57, N = 3
548.00
Core i7 8665U
SE +/- 0.88, N = 3
527.83
Core i5 8250U
SE +/- 0.50, N = 3
504.86
Core i5 7500T
SE +/- 0.53, N = 3
493.76
Core i3 8130U
493.03

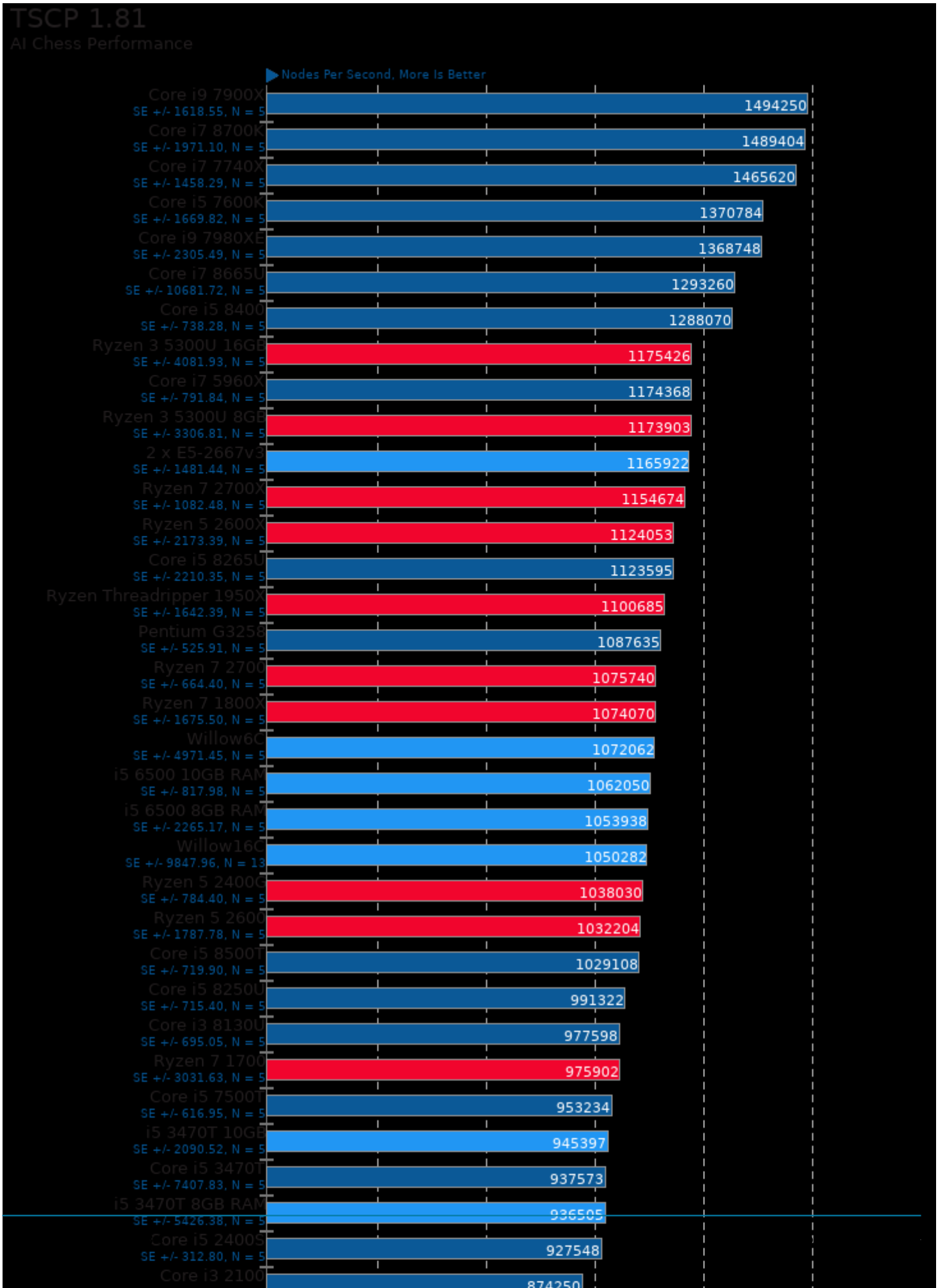

LAME MP3 Encoding 3.100
WAV To MP3
Seconds, Fewer Is Better
Ryzen 7 2700X
SE +/- 0.007, N = 3
7.900
Core i7 8700K
SE +/- 0.007, N = 3
7.900
Ryzen 5 2600X
SE +/- 0.005, N = 3
8.090
Core i7 7740X
SE +/- 0.006, N = 3
8.390
Ryzen 7 1800X
SE +/- 0.028, N = 3
8.430
Ryzen 7 2700
SE +/- 0.025, N = 3
8.440
Ryzen 5 2600
SE +/- 0.009, N = 3
8.740
Ryzen 5 2400G
SE +/- 0.060, N = 3
8.750
Core i9 7900X
SE +/- 0.047, N = 3
8.760
Core i5 7600K
SE +/- 0.009, N = 3
8.950
Core i5 8400
SE +/- 0.004, N = 3
9.040
Ryzen Threadripper 1950X
SE +/- 0.043, N = 3
9.070
Ryzen 7 1700
SE +/- 0.010, N = 3
9.320
i5 6500 10GB RAM
SE +/- 0.005, N = 3
10.190
i5 6500 8GB RAM
SE +/- 0.004, N = 3
10.250
Core i5 8500T
SE +/- 0.015, N = 3
10.530
Core i9 7980XE
SE +/- 0.017, N = 3
11.270
i5 3470T 10GB
SE +/- 0.018, N = 3
11.380
Core i5 3470T
SE +/- 0.072, N = 3
11.830
Core i7 5960X
SE +/- 0.043, N = 3
12.060
Pentium G3258
SE +/- 0.006, N = 3
12.350
i5 3470T 8GB RAM
SE +/- 0.037, N = 3
12.390
Willow16C
SE +/- 0.059, N = 3
12.560
Willow6C
SE +/- 0.038, N = 3
12.970
Core i5 2400S
SE +/- 0.005, N = 3
13.270
AMD FX-8350
SE +/- 0.013, N = 3
13.300
AMD A10-5800K
SE +/- 0.010, N = 3
13.370
AMD A6-7400K
SE +/- 0.038, N = 3
13.540
AMD A10-7870K
SE +/- 0.027, N = 3
13.570
Core i7 990X
SE +/- 0.005, N = 3
13.690
Core i3 2100
SE +/- 0.009, N = 3
14.080
AMD A10-7800
SE +/- 0.022, N = 3
15.190
Core i7 870
SE +/- 0.513, N = 6
16.480
Intel Core 2 Duo E8400
17.610


OpenSSL 1.1.0f
RSA 4096-bit Performance
Signs Per Second, More Is Better
Core i9 7980XE
SE +/- 9.45, N = 3
4689.40
Core i9 7900X
SE +/- 9.10, N = 3
3036.83
Ryzen Threadripper 1950X
SE +/- 1.34, N = 3
3000.23
Core i7 8700K
SE +/- 0.46, N = 3
1979.90
Ryzen 7 2700X
SE +/- 0.18, N = 3
1725.03
Core i5 8400
SE +/- 25.37, N = 3
1644.63
Ryzen 7 1800X
SE +/- 0.35, N = 3
1595.03
Ryzen 7 2700
SE +/- 2.29, N = 3
1473.10
Willow16C
SE +/- 56.99, N = 12
1391.63
Ryzen 7 1700
SE +/- 0.13, N = 3
1381.53
Core i7 7740X
SE +/- 1.64, N = 3
1366.57
Ryzen 5 2600X
SE +/- 2.17, N = 3
1299.73
Core i7 5960X
SE +/- 0.39, N = 3
1202.83
Ryzen 5 2600
SE +/- 0.21, N = 3
1164.30
Core i5 8500T
SE +/- 10.58, N = 3
1160.47
Core i5 7600K
SE +/- 15.07, N = 3
1147.03
i5 6500 10GB RAM
SE +/- 5.69, N = 3
915.27
i5 6500 8GB RAM
SE +/- 3.68, N = 3
913.60
Ryzen 5 2400G
SE +/- 0.82, N = 3
812.17
Willow6C
SE +/- 2.46, N = 3
794.37
AMD FX-8350
SE +/- 0.35, N = 3
705.73
Core i7 990X
SE +/- 0.00, N = 3
526.20
Core i5 2400S
SE +/- 0.10, N = 3
359.20
AMD A10-7870K
SE +/- 2.42, N = 3
338.53
Core i7 870
SE +/- 1.97, N = 3
305.07
AMD A10-7800
SE +/- 1.88, N = 3
300.43
Pentium G3258
SE +/- 1.46, N = 3
286.00
i5 3470T 10GB
SE +/- 0.09, N = 3
273.27
AMD A10-5800K
SE +/- 10.97, N = 6
266.55
Core i5 3470T
SE +/- 0.40, N = 3
254.00
Core i3 2100
SE +/- 0.07, N = 3
235.47
AMD Athlon II X3 425
SE +/- 0.12, N = 3
232.80
i5 3470T 8GB RAM
SE +/- 0.20, N = 3
221.10
AMD A6-7400K

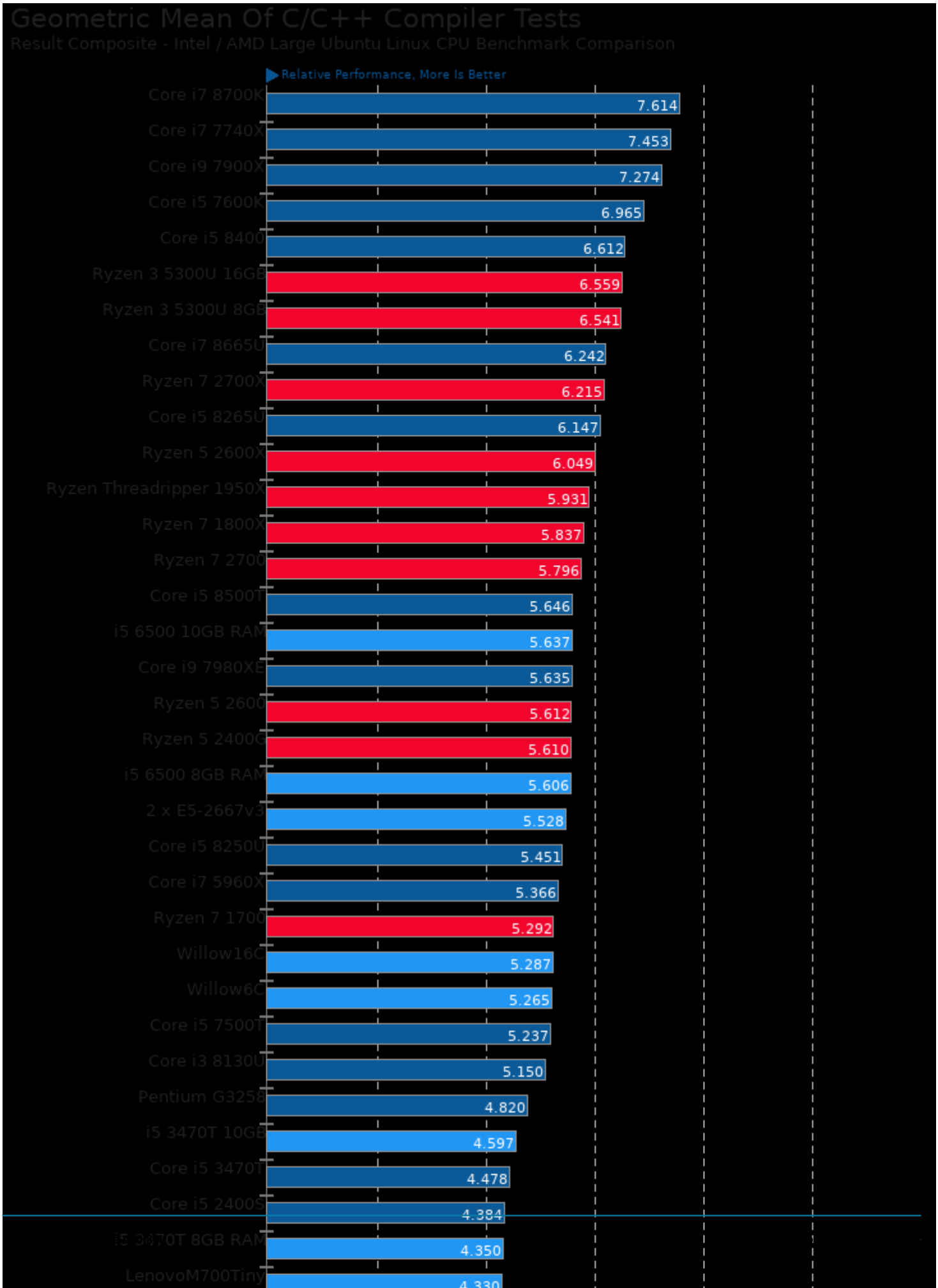

PolyBench-C 4.2
Test: Correlation Computation
Seconds, Fewer Is Better
i5 6500 8GB RAM
SE +/- 0.007, N = 3
2.060
i5 6500 10GB RAM
SE +/- 0.003, N = 3
2.060
Ryzen 3 5300U 16GB
SE +/- 0.006, N = 3
2.707
Ryzen 3 5300U 8GB
SE +/- 0.015, N = 3
3.036
i5 3470T 10GB
SE +/- 0.093, N = 12
3.230
Core i5 3470T
SE +/- 0.092, N = 12
3.350
i5 3470T 8GB RAM
SE +/- 0.108, N = 12
3.560
Ryzen Threadripper 1950X
SE +/- 0.004, N = 3
4.220
Core i9 7900X
SE +/- 0.001, N = 3
4.740
Core i7 7740X
SE +/- 0.001, N = 3
5.010
Core i5 7600K
SE +/- 0.002, N = 3
5.380
Core i9 7980XE
SE +/- 0.001, N = 3
5.700
Core i5 8265U
SE +/- 0.010, N = 3
5.925
Core i7 8665U
SE +/- 0.005, N = 3
6.120
Core i3 8130U
SE +/- 0.008, N = 3
6.832
Core i5 8250U
SE +/- 0.016, N = 3
6.890
Core i5 7500T
SE +/- 0.016, N = 3
6.961
Intel Core 2 Duo E8400
SE +/- 0.001, N = 3
7.300
AMD A10-5800K
SE +/- 0.005, N = 3
7.340
AMD A6-7400K
SE +/- 0.016, N = 3
7.740
AMD A10-7870K
SE +/- 0.530, N = 6
8.230
AMD FX-8350
SE +/- 0.596, N = 6
8.410
LenovoM700Tiny
SE +/- 0.032, N = 3
8.553
AMD A10-7800
SE +/- 0.004, N = 3
8.630
Core i3 7100U
SE +/- 0.009, N = 3
9.606
Core i7 990X
SE +/- 0.013, N = 3
12.100
Core i7 5960X
SE +/- 0.083, N = 3
12.210
Pentium G3258
SE +/- 0.074, N = 3
13.140
Core i7 870
SE +/- 0.002, N = 3
13.180
Core i5 2400S
SE +/- 0.023, N = 3
13.200
Core i3 2100
SE +/- 0.016, N = 3
14.030
MacMini2011-2415M
SE +/- 0.065, N = 3
17.167
AMD Athlon II X3 425
SE +/- 0.016, N = 3
25.480
Lenovo Duet Helio P60T
27.255


PolyBench-C 4.2
Test: Covariance Computation
Seconds, Fewer Is Better
Core i5 8500T
2.010
i5 6500 8GB RAM
SE +/- 0.014, N = 3
2.060
i5 6500 10GB RAM
SE +/- 0.006, N = 3
2.060
Ryzen 3 5300U 16GB
SE +/- 0.004, N = 3
2.731
Ryzen 3 5300U 8GB
SE +/- 0.011, N = 3
3.040
i5 3470T 10GB
SE +/- 0.092, N = 12
3.240
i5 3470T 8GB RAM
SE +/- 0.104, N = 12
3.540
Core i5 3470T
SE +/- 0.024, N = 3
3.620
Ryzen Threadripper 1950X
SE +/- 0.002, N = 3
4.220
Core i9 7900X
SE +/- 0.002, N = 3
4.730
Core i7 7740X
SE +/- 0.002, N = 3
4.990
Core i5 7600K
SE +/- 0.003, N = 3
5.390
Core i9 7980XE
SE +/- 0.005, N = 3
5.710
Core i5 8265U
SE +/- 0.001, N = 3
5.936
Core i7 8665U
SE +/- 0.008, N = 3
6.192
Core i3 8130U
SE +/- 0.003, N = 3
6.840
Core i5 8250U
SE +/- 0.012, N = 3
6.899
Core i5 7500T
SE +/- 0.007, N = 3
6.946
Intel Core 2 Duo E8400
SE +/- 0.002, N = 3
7.300
AMD A10-5800K
SE +/- 0.003, N = 3
7.360
AMD A10-7870K
SE +/- 0.002, N = 3
7.700
AMD A6-7400K
SE +/- 0.103, N = 6
7.850
AMD FX-8350
SE +/- 0.404, N = 6
8.020
LenovoM700Tiny
SE +/- 0.010, N = 3
8.593
AMD A10-7800
SE +/- 0.006, N = 3
8.650
Core i3 7100U
SE +/- 0.010, N = 3
9.568
Core i7 990X
SE +/- 0.016, N = 3
12.090
Core i7 5960X
SE +/- 0.053, N = 3
12.210
Pentium G3258
SE +/- 0.012, N = 3
13.080
Core i5 2400S
SE +/- 0.025, N = 3
13.180
Core i3 2100
SE +/- 0.014, N = 3
14.030
MacMini2011-2415M
SE +/- 0.012, N = 3
17.163
Core i7 870
SE +/- 4.567, N = 6
18.190
AMD Athlon II X3 425
25.470

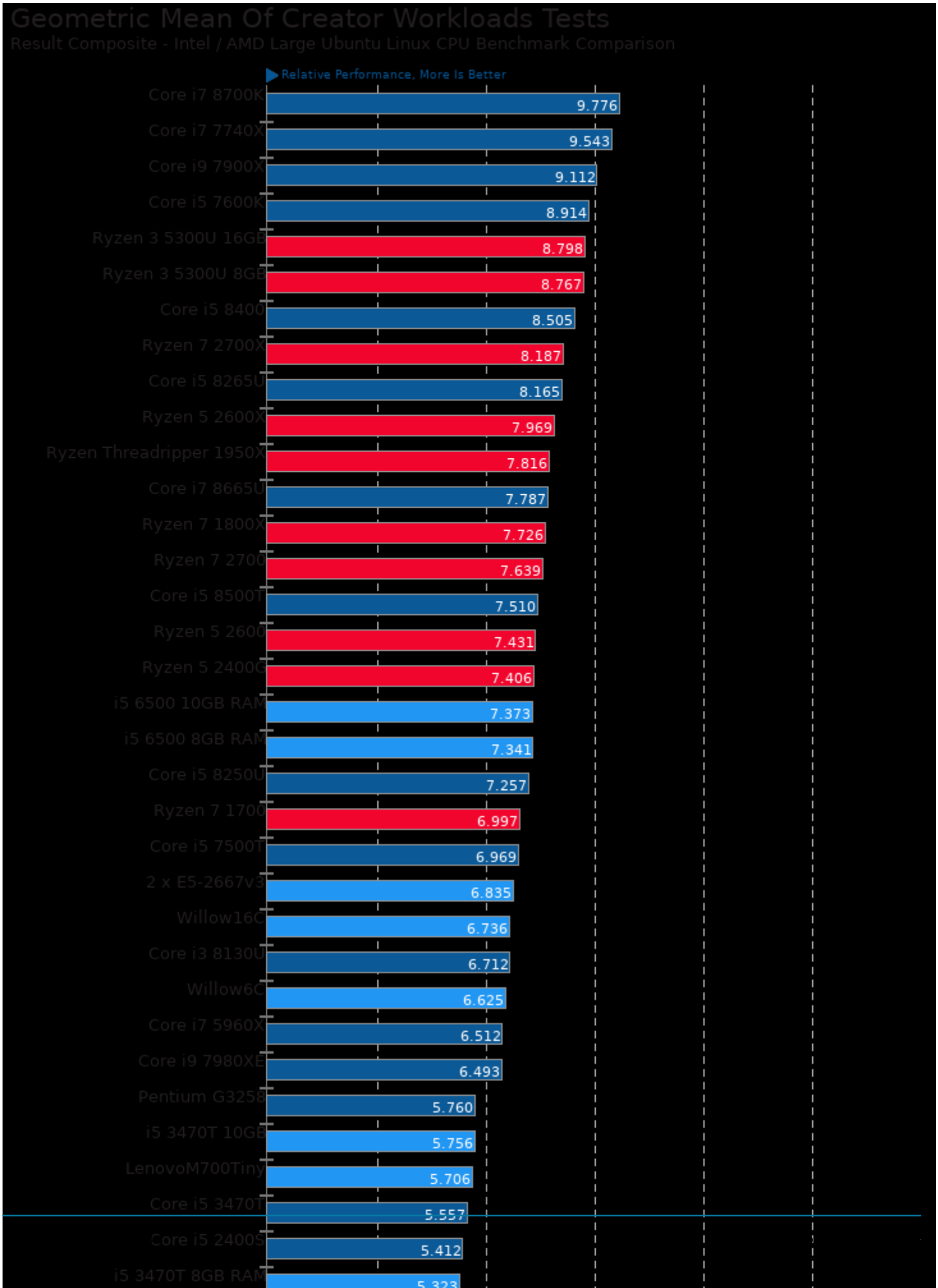

PolyBench-C 4.2
Test: 3 Matrix Multiplications
Seconds, Fewer Is Better
Core i7 7740X
SE +/- 0.013, N = 3
3.030
Core i9 7980XE
SE +/- 0.061, N = 3
3.180
Ryzen 3 5300U 16GB
SE +/- 0.013, N = 3
3.473
Core i5 7600K
SE +/- 0.054, N = 3
3.720
Core i5 8500T
SE +/- 0.010, N = 3
3.770
Ryzen Threadripper 1950X
SE +/- 0.009, N = 3
3.930
i5 6500 10GB RAM
SE +/- 0.020, N = 3
4.120
i5 6500 8GB RAM
SE +/- 0.023, N = 3
4.130
Core i5 8265U
SE +/- 0.016, N = 3
4.221
Core i7 8665U
SE +/- 0.052, N = 3
4.314
Core i5 7500T
SE +/- 0.059, N = 3
4.482
Ryzen 3 5300U 8GB
SE +/- 0.041, N = 3
4.901
Core i3 8130U
SE +/- 0.008, N = 3
5.085
Core i5 8250U
SE +/- 0.063, N = 4
5.695
LenovoM700Tiny
SE +/- 0.022, N = 3
6.243
Core i3 7100U
SE +/- 0.015, N = 3
6.545
AMD FX-8350
SE +/- 0.086, N = 3
8.500
AMD A10-5800K
SE +/- 0.043, N = 3
8.970
AMD A10-7870K
SE +/- 0.017, N = 3
8.990
AMD A6-7400K
SE +/- 0.030, N = 3
9.420
AMD A10-7800
SE +/- 0.011, N = 3
10.210
Core i7 5960X
SE +/- 0.051, N = 3
10.590
i5 3470T 10GB
SE +/- 0.040, N = 3
13.010
Core i5 3470T
SE +/- 0.075, N = 3
13.330
Pentium G3258
SE +/- 0.205, N = 4
13.600
i5 3470T 8GB RAM
SE +/- 0.045, N = 3
14.090
Intel Core 2 Duo E8400
SE +/- 0.007, N = 3
15.050
2 x E5-2667v3
SE +/- 0.155, N = 3
19.303
Core i7 990X
SE +/- 0.009, N = 3
20.020
Core i5 2400S
SE +/- 0.015, N = 3
20.200
Willow6C
SE +/- 1.540, N = 9
21.300
Core i3 2100
SE +/- 0.005, N = 3
21.490
Core i7 870
SE +/- 0.005, N = 3
22.280
Willow16C
23.320


TSCP 1.81
AI Chess Performance
Nodes Per Second, More Is Better
Core i9 7900X
SE +/- 1618.55, N = 5
1494250
Core i7 8700K
SE +/- 1971.10, N = 5
1489404
Core i7 7740X
SE +/- 1458.29, N = 5
1465620
Core i5 7600K
SE +/- 1669.82, N = 5
1370784
Core i9 7980XE
SE +/- 2305.49, N = 5
1368748
Core i7 8665U
SE +/- 10681.72, N = 5
1293260
Core i5 8400
SE +/- 738.28, N = 5
1288070
Ryzen 3 5300U 16GB
SE +/- 4081.93, N = 5
1175426
Core i7 5960X
SE +/- 791.84, N = 5
1174368
Ryzen 3 5300U 8GB
SE +/- 3306.81, N = 5
1173903
2 x E5-2667v3
SE +/- 1481.44, N = 5
1165922
Ryzen 7 2700X
SE +/- 1082.48, N = 5
1154674
Ryzen 5 2600X
SE +/- 2173.39, N = 5
1124053
Core i5 8265U
SE +/- 2210.35, N = 5
1123595
Ryzen Threadripper 1950X
SE +/- 1642.39, N = 5
1100685
Pentium G3258
SE +/- 525.91, N = 5
1087635
Ryzen 7 2700
SE +/- 664.40, N = 5
1075740
Ryzen 7 1800X
SE +/- 1675.50, N = 5
1074070
Willow6C
SE +/- 4971.45, N = 5
1072062
i5 6500 10GB RAM
SE +/- 817.98, N = 5
1062050
i5 6500 8GB RAM
SE +/- 2265.17, N = 5
1053938
Willow16C
SE +/- 9847.96, N = 13
1050282
Ryzen 5 2400G
SE +/- 784.40, N = 5
1038030
Ryzen 5 2600
SE +/- 1787.78, N = 5
1032204
Core i5 8500T
SE +/- 719.90, N = 5
1029108
Core i5 8250U
SE +/- 715.40, N = 5
991322
Core i3 8130U
SE +/- 695.05, N = 5
977598
Ryzen 7 1700
SE +/- 3031.63, N = 5
975902
Core i5 7500T
SE +/- 616.95, N = 5
953234
i5 3470T 10GB
SE +/- 2090.52, N = 5
945397
Core i5 3470T
SE +/- 7407.83, N = 5
937573
i5 3470T 8GB RAM
SE +/- 5426.38, N = 5
936505
Core i5 2400S
SE +/- 312.80, N = 5
927548
Core i3 2100
874250

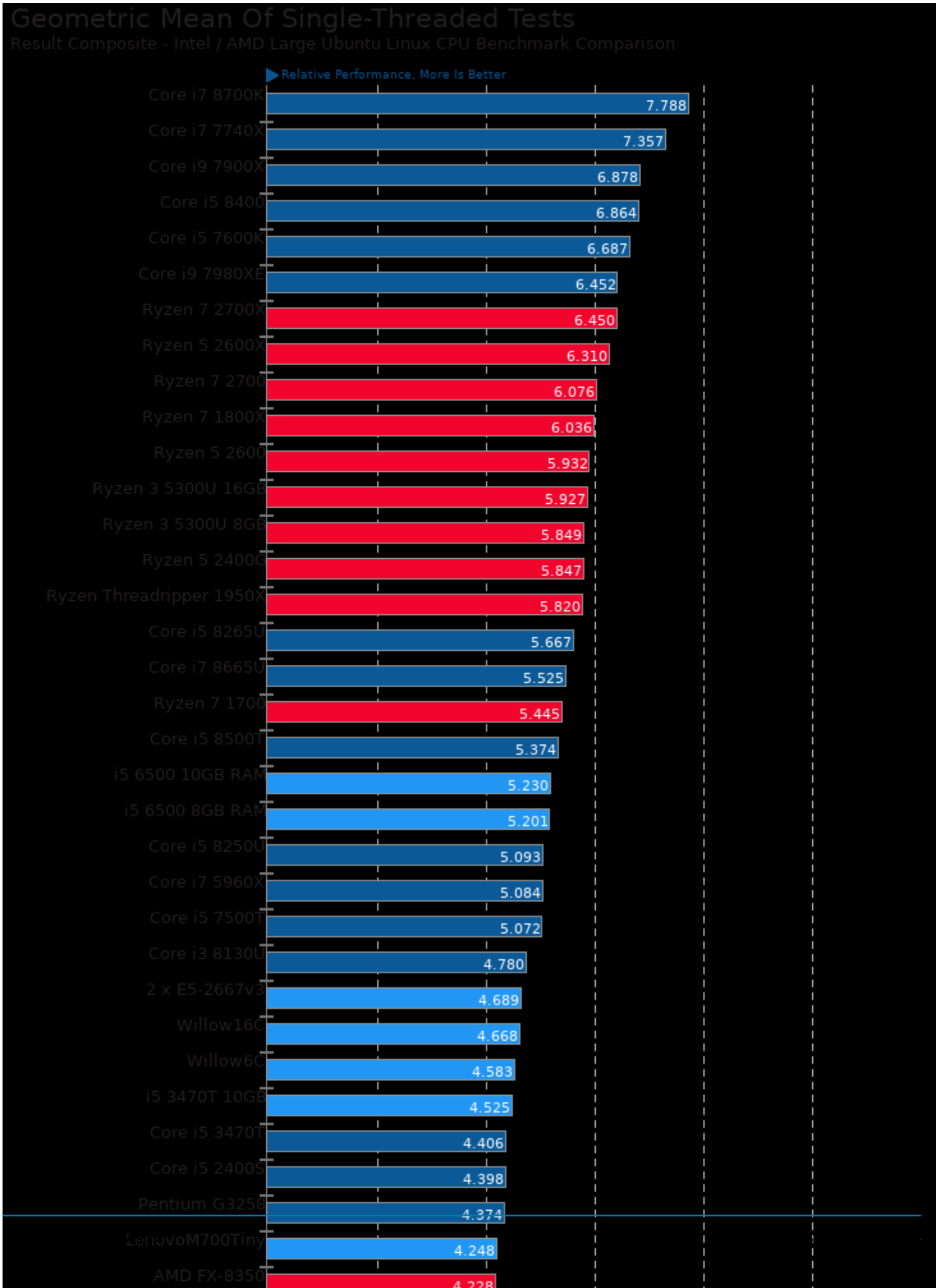
These geometric means are based upon test groupings / test suites for this result file.


Geometric Mean Of C/C++ Compiler Tests
Result Composite - Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison
Relative Performance, More Is Better
Core i7 8700K 7.614
Core i7 7740X 7.453
Core i9 7900X 7.274
Core i5 7600K 6.965
Core i5 8400 6.612
Ryzen 3 5300U 16GB 6.559
Ryzen 3 5300U 8GB 6.541
Core i7 8665U 6.242
Ryzen 7 2700X 6.215
Core i5 8265U 6.147
Ryzen 5 2600X 6.049
Ryzen Threadripper 1950X 5.931
Ryzen 7 1800X 5.837
Ryzen 7 2700 5.796
Core i5 8500T 5.646
i5 6500 10GB RAM 5.637
Core i9 7980XE 5.635
Ryzen 5 2600 5.612
Ryzen 5 2400G 5.610
i5 6500 8GB RAM 5.606
2 x E5-2667v3 5.528
Core i5 8250U 5.451
Core i7 5960X 5.366
Ryzen 7 1700 5.292
Willow16C 5.287
Willow6C 5.265
Core i5 7500T 5.237
Core i3 8130U 5.150
Pentium G3258 4.820
i5 3470T 10GB 4.597
Core i5 3470T 4.478
Core i5 2400S 4.384
i5 3470T 8GB RAM 4.350
LenovoM700Tiny 4.330

Geometric mean based upon tests: pts/scimark2, pts/aobench, pts/tscp, pts/stockfish, pts/build-php, pts/compress-7zip, pts/encode-mp3, pts/encode-flac, pts/compress-zstd and pts/openssl


Geometric Mean Of Creator Workloads Tests
Result Composite - Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison
Relative Performance, More Is Better
Core i7 8700K 9.776
Core i7 7740X 9.543
Core i9 7900X 9.112
Core i5 7600K 8.914
Ryzen 3 5300U 16GB 8.798
Ryzen 3 5300U 8GB 8.767
Core i5 8400 8.505
Ryzen 7 2700X 8.187
Core i5 8265U 8.165
Ryzen 5 2600X 7.969
Ryzen Threadripper 1950X 7.816
Core i7 8665U 7.787
Ryzen 7 1800X 7.726
Ryzen 7 2700 7.639
Core i5 8500T 7.510
Ryzen 5 2600 7.431
Ryzen 5 2400G 7.406
i5 6500 10GB RAM 7.373
i5 6500 8GB RAM 7.341
Core i5 8250U 7.257
Ryzen 7 1700 6.997
Core i5 7500T 6.969
2 x E5-2667v3 6.835
Willow16C 6.736
Core i3 8130U 6.712
Willow6C 6.625
Core i7 5960X 6.512
Core i9 7980XE 6.493
Pentium G3258 5.760
i5 3470T 10GB 5.756
LenovoM700Tiny 5.706
Core i5 3470T 5.557
Core i5 2400S 5.412
i5 3470T 8GB RAM 5.323

Geometric mean based upon tests: pts/aobench, pts/ttsiod-renderer, pts/encode-mp3 and pts/encode-flac


Geometric Mean Of Single-Threaded Tests
Result Composite - Intel / AMD Large Ubuntu Linux CPU Benchmark Comparison
Relative Performance, More Is Better
Core i7 8700K 7.788
Core i7 7740X 7.357
Core i9 7900X 6.878
Core i5 8400 6.864
Core i5 7600K 6.687
Core i9 7980XE 6.452
Ryzen 7 2700X 6.450
Ryzen 5 2600X 6.310
Ryzen 7 2700 6.076
Ryzen 7 1800X 6.036
Ryzen 5 2600 5.932
Ryzen 3 5300U 16GB 5.927
Ryzen 3 5300U 8GB 5.849
Ryzen 5 2400G 5.847
Ryzen Threadripper 1950X 5.820
Core i5 8265U 5.667
Core i7 8665U 5.525
Ryzen 7 1700 5.445
Core i5 8500T 5.374
i5 6500 10GB RAM 5.230
i5 6500 8GB RAM 5.201
Core i5 8250U 5.093
Core i7 5960X 5.084
Core i5 7500T 5.072
Core i3 8130U 4.780
2 x E5-2667v3 4.689
Willow16C 4.668
Willow6C 4.583
i5 3470T 10GB 4.525
Core i5 3470T 4.406
Core i5 2400S 4.398
Pentium G3258 4.374
LenovoM700Tiny 4.248
AMD FX-8350 4.228

Geometric mean based upon tests: pts/polybench-c, pts/fhourstones, pts/scimark2, pts/encode-flac and pts/encode-mp3

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 02:15.